Deliverable Report

Deliverable:	Report on Final Eco-Efficiency impact evaluation
Work Package:	Work Package 8
Lead Beneficiary:	TNO
Nature of Deliverable:	Report
Dissemination Level:	PU
Delivery Date: **(According to Annex I)**	Month 42
Actual Delivery Date: **(Or Forecast Date)**	Month 42
Submitted By:	Elisabeth Keijzer

Index

Summary

BioBuild is a project commissioned by the European Commission's Seventh Framework and aims to use biocomposites in building façade, to reduce embodied energy and in the end set a significant step towards the use of sustainable, low carbon construction materials in the future. The goal of this final assessment is to provide evidence for the sustainability performance of the developed products. Therefore, this report contains all environment, cost and health-related improvements of the BioBuild products compared to the references.

The general approach of this assessment is to compare environmental impacts, costs, eco-efficiency and health impacts of the developed BioBuild products with the current standard for these products. This is done by executing a Life Cycle Assessment (LCA) for assessing the environmental impacts, a Total Cost of Ownership (TCO) analysis for calculating the costs and an eco-efficiency analysis for evaluating the eco-efficiency. Health aspects were researched in a separate study, from which the results are used in this assessment. For the comparison between BioBuild products and the references, four case studies were selected: (1) external cladding kit, (2) external wall panel, (3) internal partition kit and (4) suspended ceiling kit. In each case study, two variants of the BioBuild product are used for the comparison: a demonstrator unit (currently realistic) and an optimized unit (where properties of the product are maximized in favour of low embodied energy and low costs as much as realistically possible). The results of the eco-efficiency results of the four cases are shown and commented below.

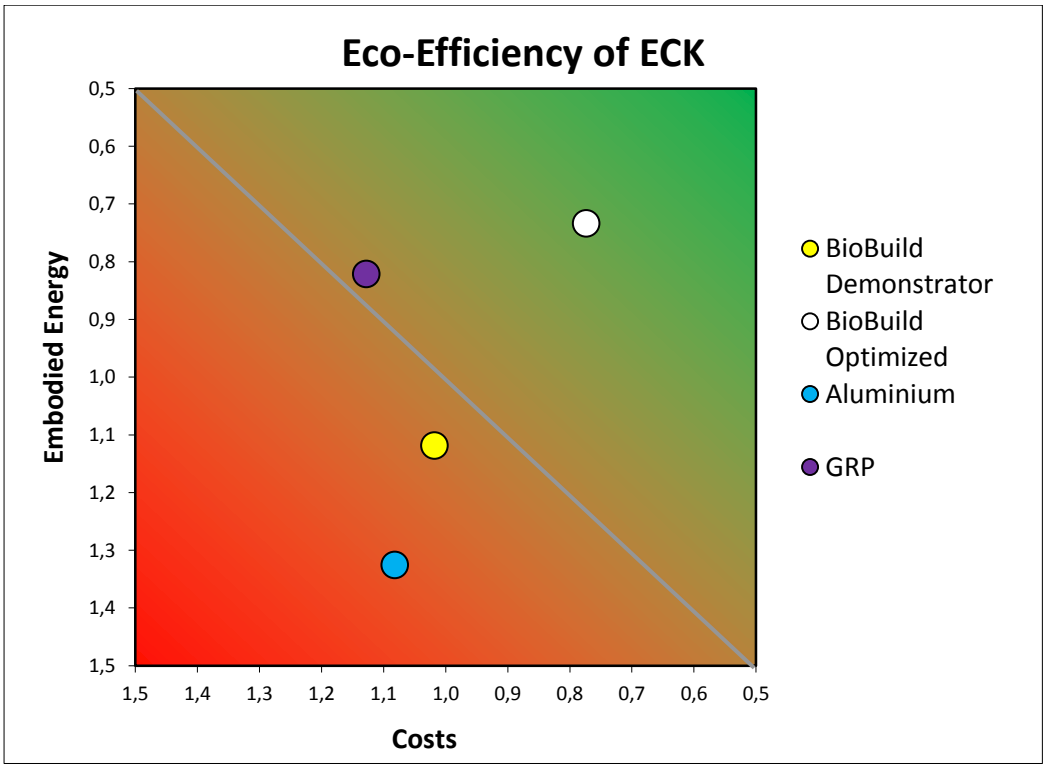


Figure S 1 Eco-efficiency of the External Cladding Kit variants.

In the first case study, bio based external rain screen cladding was compared with two benchmarks: aluminium and GRP. The BioBuild demonstrator unit showed a slightly lower score on embodied energy and costs than the benchmarks, but the optimized ECK shows that there is the potential for BioBuild to score substantially lower than the benchmarks. Whether this potential can be met is highly sensitive for the technical lifetime of the BioBuild product.

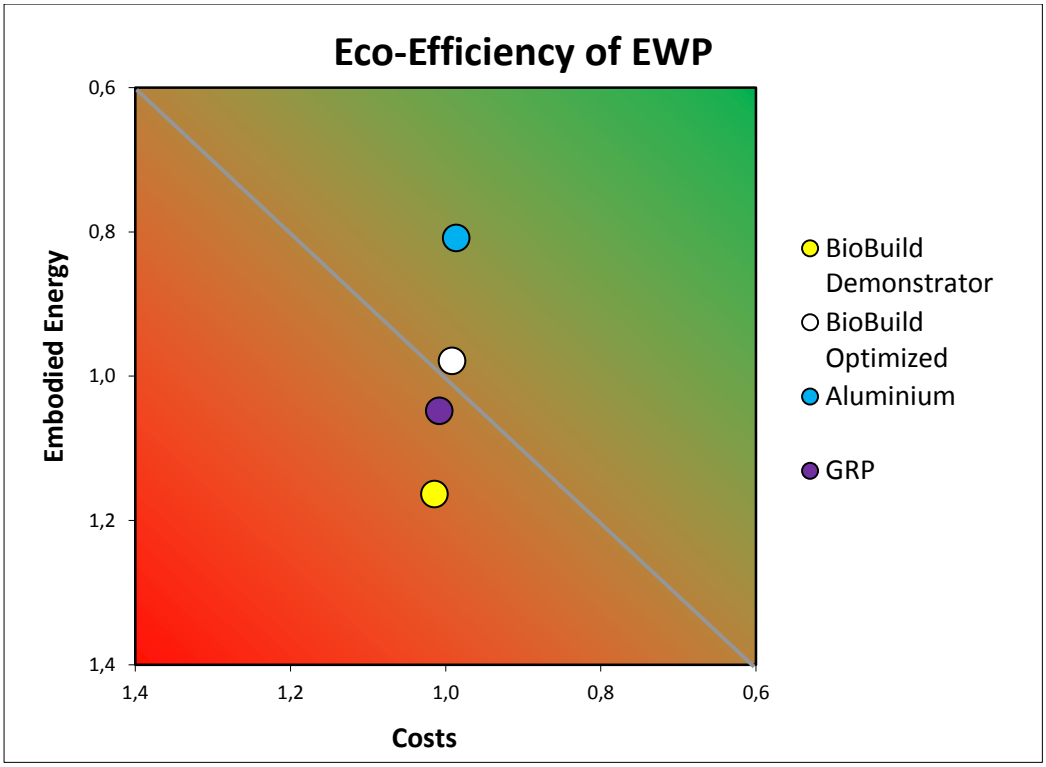


Figure S 2 Eco-efficiency of the External Wall Panel variants.

For the second case study, a comparison was made between the BioBuild external wall panel and two benchmark situations: an external wall panel with an aluminium skin and one with a composite skin. The embodied energy of the BioBuild demonstrator is higher than the benchmarks, while the embodied energy of the optimized design scores in between the two benchmarks. The optimized design can compete with the embodied energy of the GRP benchmark, however the results are highly sensitive for the technical lifetime of the BioBuild product. The EWP costs are differing only a few percent on the total, due to the large part of the costs which is the same in all variants. The differences in the costs for the external and internal skin are quite substantial; the BioBuild demonstrator unit does not differ much from the GRP variant, but the aluminium variant is significantly cheaper. Since the costs differ this little, the eco-efficiency graph only shows differentiation in energy results.

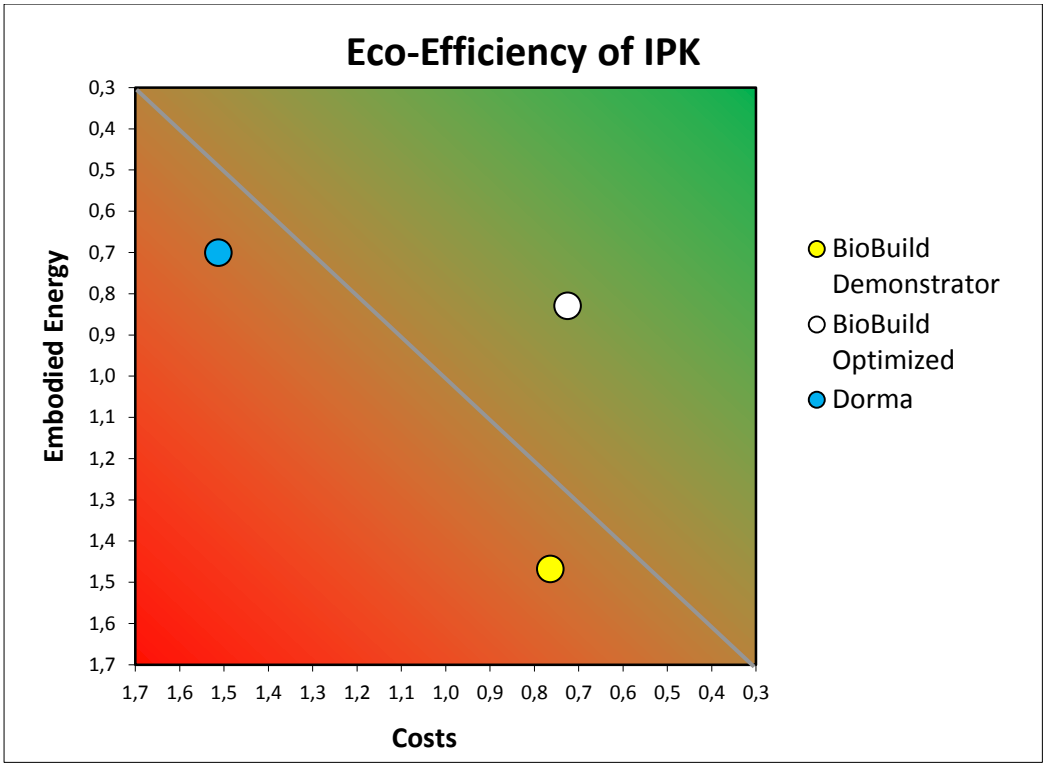


Figure S 3 Eco-efficiency of the Internal Partition Kit variants.

The BioBuild demonstrator internal partition kit – which was the third case study – has a higher score on embodied energy than the Dorma benchmark, but the costs are almost twice as low. The optimized design shows that the embodied energy could be reduced to the almost same level as the benchmark, while the costs remain twice as low as the benchmark.

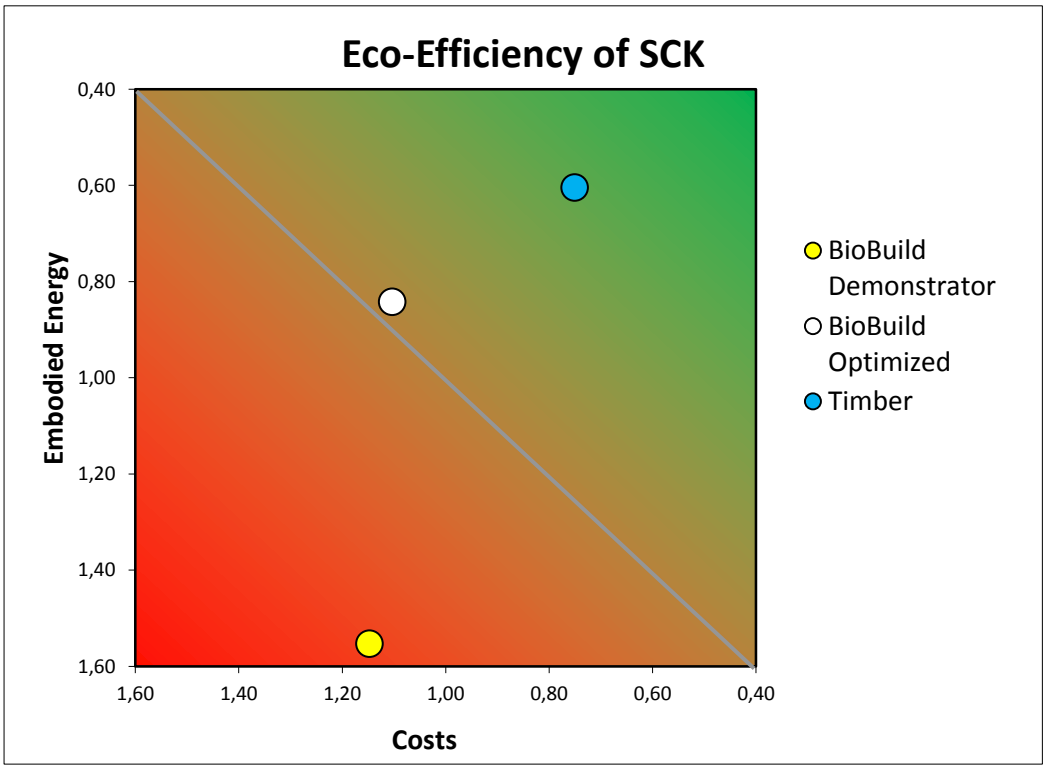


Figure S 4 Eco-efficiency of the Suspended Ceiling Kit variants.

Finally, the fourth case study –the suspended ceiling kit- revealed the difference in embodied energy and costs for a timber lamella suspended ceiling kit (benchmark) and the BioBuild SCK. The BioBuild demonstrator unit has a higher score on both embodied energy and costs

in comparison to the benchmark, but the optimized SCK shows that there is the potential for BioBuild get a closer score on energy compared to the timber benchmark against average costs. For the biobased impacts, the results are difficult to interpret because the method is yet too sensitive for small variations and the negative impacts of avoided products.

Most sensitive issues were already tackled during the quick scans and have been reported in deliverable 8.3 and not further discussed in this chapter. The impact of end-of-life modelling is rather straightforward: the more material can be recycled and the more energy can be recovered with incineration, the lower the total embodied energy of the product over its lifetime will be. It can be recommended to investigate the options of BioBuild's product recyclability, however this recommendation is also valid for other products in the market.
The most sensitive issue is the life time of the products. Best and worst case scenarios for the lifetime of all variants were compared, and resulted in the conclusion that the conclusions from the previous graphs are still valid: the current BioBuild designs as developed for Ecobuild, are not competitive yet with the benchmarks. However, the sensitivity assessment confirmed that there is room for improvement by means of optimization options. The results emphasized need for realistic and precise lifetime predictions in order to validate the embodied energy claims in further product development.

The health incidences related to the life cycle of BioBuild and benchmark products are updated from the first study (D8.2) to this final assessment. The results depend largely on the resin choice, the precursors of the resin and the transport of materials over land. In most cases, the BioBuild variant scores equal or even lower than the benchmarks in at least one of the two accident categories. For both categories in the IPK, the score of BioBuild is significantly higher than the benchmark. However, using other materials as a precursor of the resin, might help decreasing these impacts. In the SCK case, fatal accidents are much higher for BioBuild than for the benchmark but this is mainly a result of transport distances. Changing markets, larger availability of biobased products and therefor shorter transport distances, could decrease this impact significantly. On total, BioBuild has the potential to have health incidences lower or in the same order of magnitude compared to the benchmarks. Exact claims about the health impacts can only be performed after further research during the continuation development of the BioBuild products.

Overall, when comparing the demonstrator units with the optimized designs, the BioBuild products showed a large potential for improvement on embodied energy and related environmental impacts as a result of further development and optimisation. Although the demonstrator units were often more expensive or having a higher embodied energy than the benchmarks, the optimized design showed a significant reduction of embodied energy. This optimization can be achieved by selecting the fibres and resin that have the lowest embodied energy compared to the available alternatives. To reduce embodied energy, for example UD jute is preferred over flax woven fabric, PFA resin is preferred over biopolyester and wood wool over rock wool.
In two of the four cases (ECK and IPK) the eco-efficiency of the optimized design was scoring better than the benchmarks. The EWP and the SCK designs are in need of some improvement in order to become competitive with the benchmarks, but the analysis of the results indicated that there are opportunities for this. As the BioBuild products need further development, also to meet technical requirements such as durability and fire resistance, the optimization on life time and embodied energy can be included in this development process. Given the intermediate character of the results in the report, this assessment needs to be updated when the BioBuild products are further developed.

The BioBuild products are not expected to be competitive with *every* building product in the market, but this project shows that the potential of the BioBuild products in a specific market is promising. Further product development may also include the development of higher life times and of new applications that may have a higher potential to meet sustainability goals.

Reviewer's letter

Rocío Fernandez Flores, 21 August 2014:
Introduction, scope and methodology and system description have been carefully reviewed in order to assure the best quality of the work done.
A few spelling mistakes have been corrected.
Apart from that, there are no additional comments or remarks.

Rocío Fernandez Flores,27 April 2015:
The final report about Eco-Efficiency impact evaluation has been rigorously reviewed to ensure its optimum quality.
The following aspects have been evaluated in a scale from 1 to 5 (being 1 the minimum and 5 the maximum level of achievement):

- **Structure:** 4
  Well and logically structured.
  As one of the goals of the document is the environmental assessment LCA results were expected to appear as part of the main document but only embodied energy and accidents are expressed. Even being aware that the reduction of embodied energy is the final goal of the project, I would suggest including the tables of the Appendix E in the body of the document in order to show clearer the relevant LCA results as expected.

- **Content**: 5
  Excellent content. Every part includes relevant, truthful and detailed information.

- **Clarity:** 4
  Minor spelling errors have been modified.
  Some sentences are maybe too complex and dense which might make the reader having difficulties in the comprehension of the text.

- **Evidence of tangible results**: 5
  Clear evidences of the results from the comparison between the BioBuild materials and the benchmarks have been brilliantly accomplished, having done an excellent analysis of the case studies, carefully assessing, environmental, economic and eco-efficiency aspects.

In general terms, considering the above results, it can be assure that it is a really good document, achieving the expected goals through the hard and proficient work.

Response to the Reviewer
Elisabeth Keijzer, 11 May 2015:
We are grateful for the secure reading of the reviewer and the useful suggestions.

All spelling and textual corrections are accepted and altered in the final version of the report.

The reviewer suggested to add the full tables with environmental impacts (other than energy) to the main text of the report instead of the appendix. We considered this suggestion, but decided that for the readability it is better to keep them in the appendix instead of copying 9 pages full of tables to the main text. Since the project focuses on energy and costs, these are prominently visible and discussed in the main text. Other (environmental) impacts are calculated and shortly discussed, but not presented in the main text in order to improve readability.

In the final version of this report, there is only 1 minor change in addition to the textual changes, compared to the version that has been checked by the reviewer. Shortly after the review was finalized, IVW discovered that one of the case studies (ECK) could be produced without adhesives, which causes a reduction in embodied energy of the “optimized” design variant. This information was not integrated in the (already described and reviewed) calculations, but it was included in the discussion of the results in paragraph 4.2.1.

1 Introduction

1.1 Background

The BioBuild project is commissioned by the European Commission's Seventh Framework Programme (FP7) within the Call for Energy-efficient Building (EeB). The project aims to develop new building materials made from biobased composites with 50% reduction in embodied energy and no increase in costs. The project has a strong focus on sustainability and pays attention to the three pillars of sustainability: people (health), planet (environment) and profit (costs). These three pillars are assessed at the beginning, during and at the end of the project in order to support decision making and evaluate the final products. Three types of environmental and cost assessments are performed in the project:

- a benchmark study: to select the state-of-the-art building products by means of comparison of the performance against the newly developed BioBuild products,
- a variety of quick scans to support the development during the project and
- a final assessment to describe the achieved results on embodied energy and the three P's.

Health aspects are taken into account in a separate study (Deliverable 8.2) and extensively are discussed in this final assessment as well.

1.2 Goal

The aim of the whole project, as noted in the first paragraph of the Description of Work, is:

"To use biocomposites to reduce the embodied energy
in building façade, supporting structure and internal partition systems
by at least 50% over current materials with no increase in cost.

These sustainability goals are monitored throughout the project. The goal of the final assessment, as defined by the Description of Work, is to provide evidence for the sustainability performance of the developed products. Therefore, this report contains all environment, cost and health-related improvements of the BioBuild products compared to the references. As determined in the Description of Work, the environmental assessment is performed conform to the ILCD guidelines for Life Cycle Assessment.

1.3 Intended audience

This report describes the final assessment and is primarily meant to show how the developed products perform on a broad range of sustainability aspects. The report provides insight for the commissioner, the European Commission, as well as for interested market parties or civilians, about the sustainability of the developed BioBuild products. The report is mainly written from an (environmental) scientific perspective, but the conclusions on the results are meant to be comprehensible for non-scientific audience.

1.4 Decision context

The life cycle assessment modelling needs to be based on the specific decision context. The ILCD distinguishes three different types of situations with respect to their decision context. The overview of the subdivision of the situations is shown in Table 1; more information on this can be found in the detailed guide of the ILCD (European Commission - JRC - IES, 2010). This research is a Situation A, as the aim is to support decision making, but no large scale process changes in other systems are occurring[1]. As a consequence, the life cycle model is set-up as an attributional model.

[1] One could argue that the aim of BioBuild is to develop new products and thereby changes "the system", but the focus is on the current market and not on the transition to a whole new market system. Issues concerning this kind of scope are further 4discussed in the second chapter.

Table 1 Overview of the different possible situations in the decision context conform to the ILCD Handbook. There are two main aspects influencing the decisions: decision orientation and kind of consequences in background system or other systems.

Decision support?		Kind of process-changes in background system / other systems	
		None or small-scale	Large-scale
	Yes	Situation A "Micro-level decision support"	Situation B "Meso/macro-level decision support"
	No	Situation C "Accounting" (with C1: including interactions with other systems, C2: excluding interactions with other systems)	

1.5 Review

The developed products are compared with reference products in the market, in order to show how they perform compared to the current standard. The ISO norms for life cycle assessments (ISO 14040-44) require an external review in case of comparative studies; hence why Acciona extensively reviewed this document. Their comments are included in the reviewer's letter in the previous chapter.

1.6 Limitations

The BioBuild products are under development and produced in lab-scale circumstances. This study is limited to data that could be made available during the development of the products and although it tries to provide insight on expected future developments and effects, the results shown are affected by the limited knowledge that we have right now. The results of this assessment show the impact of these specific case studies and should not be used as an example for other biobased building materials. These are the major limitations of this report. A detailed description of the scope and limitations of this study are given in the next chapter (chapter 2).

1.7 Compliance statement

As stated in the DoW, this report aimed at compliance with the JRC's ILCD Handbook for LCAs (European Commission - JRC - IES, 2010). This compliance is met on all five elements: data quality, method, nomenclature, review and documentation. Compliance with the ILCD includes following the norms for environmental assessments, EN ISO 144040-14044. This report follows those norms.

This report also aims to comply with the European norm on environmental assessments of building products (EN ISO 15804; (CEN European Committee for Standardization, 2012)). Conform the provisions of the ILCD (#5.4) that specify that relevant Product Category Rules need to be followed, the 15804 norm is followed in case of differences between the ILCD and the 15804 norm. It should also be mentioned that this report only performs environmental assessments and does not aim to provide a full Environmental Product Declaration (EPD).

1.8 Set-up of this report

Following the common practise in life cycle assessment as noted in EN ISO 14040-44 ((CEN European Committee for Standardization, 2006) and (CEN European Committee for Standardization, 2006)), the first stage of this study is goal and scope definition. The goal was already presented in this introduction; the scope and methodology is described in the next chapter. Chapter 3 describes the studied systems. In the 4th chapter, the results are presented, followed by the sensitivity analyses in the 0th chapter. The report is finalized by the overall conclusions in the last chapter (0). The used data, list of exclusions, list of

assumptions and life cycle inventory results can be found in the appendices (see page 61 and further).

2 Scope and methodology

2.1 Introduction

This chapter explains what lies within and outside the scope of this study and how the study is set up and worked out. The first paragraph (2.2) describes the declared units of the case studies. Next, the system boundaries are worked out in paragraph 2.3. The calculation methods for life time and end-of-life are explained in paragraph 2.4, followed by the description of the ways to solve multifunctionality and multi-output processes in paragraph 2.5. The data requirements and the methodology are explained in paragraph 2.6 and 2.7, respectively. The last paragraph (2.8) describes the type of review.

2.2 Declared unit

ISO 14040 requires that a declared unit has to be described for every LCA, defined as "a quantified performance of a product system for use as a reference unit" (CEN European Committee for Standardization, 2006). Within BioBuild, products have been developed for four applications (cases), being: an external cladding kit, an external wall panel, an internal partition kit and a suspended ceiling kit.

The declared unit is described for these four cases, conform the requirements of EN ISO 15804. This declared unit is an item with specified dimensions and characteristics, and includes all interactions between ecosphere and technosphere during the whole life cycle of the product, including maintenance and replacement during service life, if relevant. No relevant European Product Category Rules (PCRs) exist that describe calculation rules for these four cases.

Paragraph 2.2.1 describes the general aspects that are relevant for all declared units, such as dimensions and temporal and geographical scope for the application. Paragraphs 2.2.2 up to 2.2.5 shortly describe the declared unit for each case respectively. The last paragraph, 2.2.6, describes how the reference materials have been identified. The detailed description of the different product systems for each case study materials is given in chapter 3.

2.2.1 General aspects of all declared units

All cases are meant to be applied on and in average buildings located in Europe, comprising newly built and existing buildings. The temporal focus is on current practise and the near future, focussing on building activities from now till 2020. The BioBuild products are assumed to be applicable on buildings that are already built or will be built up till 2020.

The dimensions of the case studies were calculated as for the height of 1 storey, to keep the calculations as representative and transparent as possible. The other dimensions of the declared units are given below.

All declared units have a required service life of 40 years for the external units and 15 years for the internal units. The 40 years for external applications is based on the minimal service life requirement for building products in Europe (Agethen, z.d.) and on the DoW of this project that states that the required service life time of the BioBuild products is 40 years. The same value is applied for all external cases. For the internal objects, a service time of 40 years is unrealistic in practice, as internal systems are more often changed to keep the building functional for its user under for example altering economic circumstances, or a change of building use(rs). A service life period of 10 to 20 years, thus on average 15 years, is more realistic for internal applications. These lifetimes reflect the typical lifetime of indoor and outdoor building products for the utility market (offices).

2.2.2 Case study 1: external cladding kit

Cost and material quantities for façades are usually specified in square metre façade elevation. Therefore the declared unit of the first case is defined as *"one square metre elevation (frontal view) of an external cladding kit".*

An entire rain screen system incorporates thermal insulation (e.g. mineral wool), breather membrane (to regulate water vapour moving through the façade from inside to outside) and a ventilated air cavity behind the panels (that ventilates potentially damaging humidity from

the wall construction to the outside). Conventional materials for cladding panels are aluminium, coated or natural, HPL (high pressure laminate) or timber. The backing structure is mostly made of aluminium, because of its lightweight and durable properties.
The external cladding kit in this case study consists of a backing structure and panels. The main function of an external cladding kit is protection against rain and water ingress and not against temperature, and therefore no definition of required thickness is included in the description of the declared unit. The technical performance details of this case study are specified in Table 2.
The results of analyses of the rain screen claddings are given per square metre elevation rain screen cladding. As 1 m^2 of rains screen cladding may not cover all elements that are needed in the complete system, these results for 1 m^2 are based on the average material quantities of a larger representation of the system. The system considered is a one storey high (3300 mm) and 6000 mm wide part of the façade. The material quantities are divided by the total square metre elevation (19.8 m^2) to ensure a result per square metre elevation.

Table 2 Technical performance of case study 1: external cladding kit.

Technical aspect	Required performance
Design life	40 years
Service life	40 years
Applied loads	~ 1.6 kN/m^2 wind loads, ~ 500 N horizontal cleaning load
Acoustical performance	No requirements
Thermal performance	No requirements
Fire performance	B s3, d0 (EN 13501-1)

2.2.3 Case study 2: external wall panel

As for rain screen claddings, the declared unit of the second case is defined as *"one square metre elevation of an external wall panel".* The analysed elements are sandwich structures, consisting at least of an outer and inner skin and an insulating core.
External wall panels are prefabricated elements that can waterproof a building in one installation step. This advantage is often used in situations that do not allow for long installation time, building up the façade on location. This could be the case with building along high traffic routes, where a crane is not permitted or on hard to reach places, such as high rise.
The results of analyses of the wall units are given per square metre elevation. The material quantity is calculated for a two storey high (6000 mm) and a 3300 mm wide wall unit. The material quantities are divided by the total square metre elevation (19.8 m^2) for average square metre results. This case study excludes sealants, fixings and brackets. The technical performance details of this case study are specified in Table 3.

Table 3 Technical performance of case study 2: external wall panel.

Technical aspect	Required performance
Design life	40 years
Service life	40 years
Applied loads	~ 1.6 kN/m^2 wind loads, ~ 500 N horizontal cleaning load
Acoustical performance	R_w Sound reduction >30 dB
Thermal performance	U_{wall} 0.2 – 0.3 W/m^2K
Fire performance	B (EN 13501-1)

2.2.4 Case study 3: internal partition kit

The analyses of the third case study are performed for the declared unit of *"one square metre elevation of an internal partition kit".* A partition wall is a non-load bearing vertical

feature that is applied internally to separate working or living spaces from one other, e.g. partition walls in cellular offices. The acoustic performance is characterised in two ways: resistance against body-borne and air-borne noise. There are no thermal or vapour-related requirements for a standard internal partition wall. Usually the partition wall is finished with a coating that resembles to the conventional walls in colour and gloss.
The material quantity is calculated for a floor to ceiling high element (2600 mm) and 5400 mm wide. The material quantities are divided by the total square metre elevation (14 m^2) for average square metre results. The technical performance details of this case study are specified in Table 4.
The service life the internal wall is set to 15 years (similar to all indoor products in this study). 15 years reflect a typical service lifetime in utility buildings like offices. In residential buildings the average service lifetime of an internal wall system is most likely to be longer. However, the service life is considered to be independent of material choices, because the user's interior choices are the limiting factor. As a consequence, the conclusions on the comparison of alternative products remain the same, even if the service life time would be longer.

Table 4 Technical performance of case study 3: internal partition kit.

Technical aspect	Required performance
Design life	40 years
Service life	15 years
Applied loads	Gravity (self-weight, non-load bearing wall)
Acoustical performance	R_w Sound reduction > 37 dB
Thermal performance	U_{wall} 0.35 W/m^2K
Fire performance	Class A1 or A2 is aimed for (EN 13501-1) and fire rating up to 30 minutes

2.2.5 Case study 4: suspended ceiling kit

The declared unit of the fourth case is defined as *"one square metre projection of suspended ceiling kit".* A suspended ceiling kit is applied internally to cover up structural elements and possible mechanical equipment, such as ventilation shafts. This type of structure is most likely to be applied in utility buildings (offices), not in residential buildings.
The results of analyses of the suspended ceiling kits are given per square metre ceiling elevation. The material quantity is calculated for a ceiling area of 25.9 m^2 (5400 mm x 4800 mm). Subsequently the material quantities are divided by the ceiling area for average square metre results. The technical performance details of this case study are specified in Table 5.

Table 5 Technical performance of case study 4: suspended ceiling kit.

Technical aspect	Required performance
Design life	40 years
Service life	15 years
Applied loads	Gravity (self-weight, non-load bearing element)
Acoustical performance	No requirements
Thermal performance	No requirements
Fire performance	Class B2, d0 (EN 13501-1)
Suspension height	~ 200 mm

2.2.6 Selection of reference materials

For each case study, one or two state-of-the-art reference materials are selected in order to be able to compare the performance of BioBuild products with either conventional composites (as composites reflect similar state-of-the-art production techniques and design possibilities) and/ or the 'best' products available on the market for the selected application.

As a result of the selection procedure, one state-of-the-art benchmark was selected and, only if currently available in the market, one composite product as well.
The first step of the selection procedure for the state-of-the-art benchmark was the creation of a shortlist of the most occurring and promising materials for each case. Technical performance was a prerequisite for the formation of the shortlist. The materials were then rated on three criteria: market share, cost and embodied energy. For the latter, an outline assessment was performed in order to make informed decisions. From the combination of ratings, the material with the best combination in a certain case (highest market share, lowest costs and lowest embodied energy) was selected as reference material.
Which materials have been selected is explained in the system description in chapter 3.

2.3 System boundaries

The EN ISO14040 defines the system boundary as "a set of criteria specifying which unit processes are part of a product system" (CEN European Committee for Standardization, 2006) and the ILCD Handbook adds to this "…contains all relevant life cycle stages and processes that are operated within the technosphere" (European Commission - JRC - IES, 2010). In line with these definitions, this paragraph discusses the general approach of the analyses, the boundaries, in- and excluded parts, and the specific cut-off rules. The following paragraphs discuss the general life cycle approach first, which defines the main boundaries (paragraph 2.3.1), followed by the description of the specific cut-off rules and exclusions (paragraph 2.3.2).

2.3.1 Life cycle approach: cradle-to-grave & total cost of ownership

A life cycle approach in performance assessments would reveal a shift of impact over time or to another product life cycle phase, and thus allows for a fair comparison of the overall performance of product alternatives. All sustainability analyses -the environmental, economic and health assessments- follow a life cycle approach. This means that all processes and material flows over the entire life cycle of the product are taken into account.

In the BioBuild assessments the following product-specific life cycle phases are included and visualised in Figure 1:

1. Extraction of raw materials and agricultural production
2. Transportation from extraction to main processing site
3. Processing materials into basic products
4. Processing to BioBuild product, including treatments
5. Installation of the product[2]
6. Maintenance during the use phase, including cleaning and reparation
7. De-installation[2] and end-of-life treatment

How this approach works out in practise differs slightly per subject; they are shortly discussed here one by one.

[2] Installation and de-installation is only taken into account if the processes are different for the different designs (i.e. the benchmarks in comparison to the BioBuild design). However, since all designs are created to be compatible as much as possible with current methods and building designs, installation (and de-installation) were excluded from the calculations. An investigation for the cost assessment showed that the impact of the installation is not expected to be large, since the costs were estimated at about 10 €/m^2 for installation of the EWP, meaning less than 1% of the total life cycle costs. Inclusion of these costs would thus not have a very large impact on the conclusions, but only diffuse the results with a common burden which is for all designs the same. For this reason, it was considered the right decision to exclude installation from the assessments.

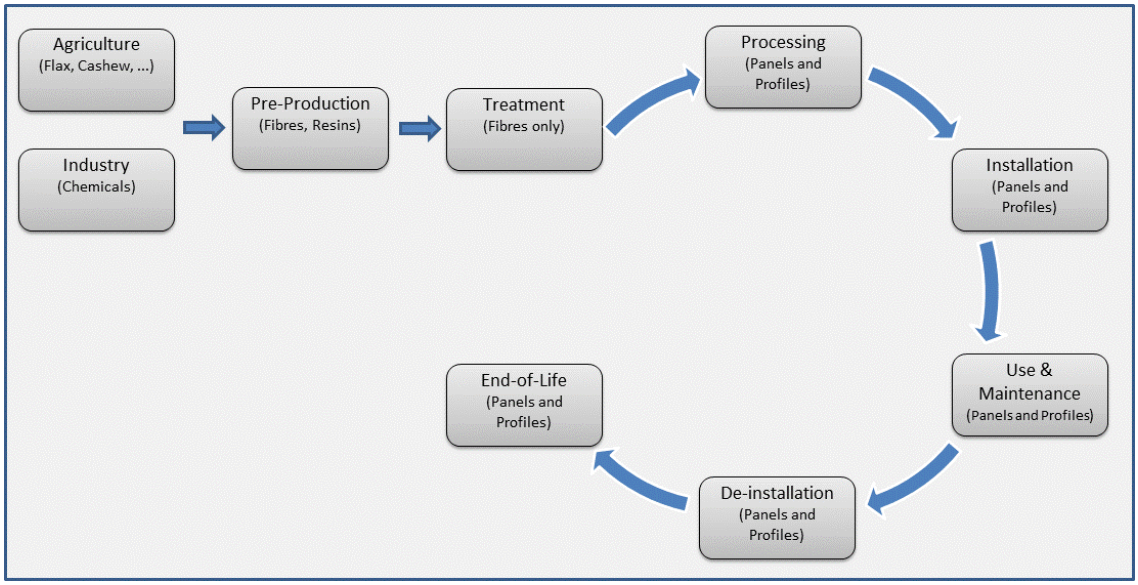


Figure 1 The life cycle of bio-composites.

For the environmental assessment, a Life Cycle Assessment (LCA) is performed. LCA addresses the environmental aspects (e.g. embodied energy, climate change and water use) throughout a product's life cycle from raw material acquisition through production, use, end-of-life treatment, recycling and final disposal, also referred to as cradle-to-grave. Through such a systematic overview and perspective, the shifting of a potential effect between life cycle stages or individual processes can be identified and possibly avoided (CEN European Committee for Standardization, 2006). For the same reason, efficiency or production losses are also taken into account.

For the cost assessment, a Total Cost of Ownership (TCO) analysis is performed. TCO could be described as being the economic equivalent of cradle-to-grave; an illustration is given in Figure 2 below. For the TCO, all costs for the owner during the required service life of the product are taken into account: purchase, maintenance, operation, replacement and demolition. All costs are only taken into account if applicable in the specific case. The cost assessment follows BS ISO 15686-5 where possible and takes into account the real costs only (British Standards, 2008). Figure 2 gives more information on what items are included.

For the eco-efficiency analysis, the cost and embodied energy results are combined in one graph, showing the scores of the different variant on both focus areas at the same time.

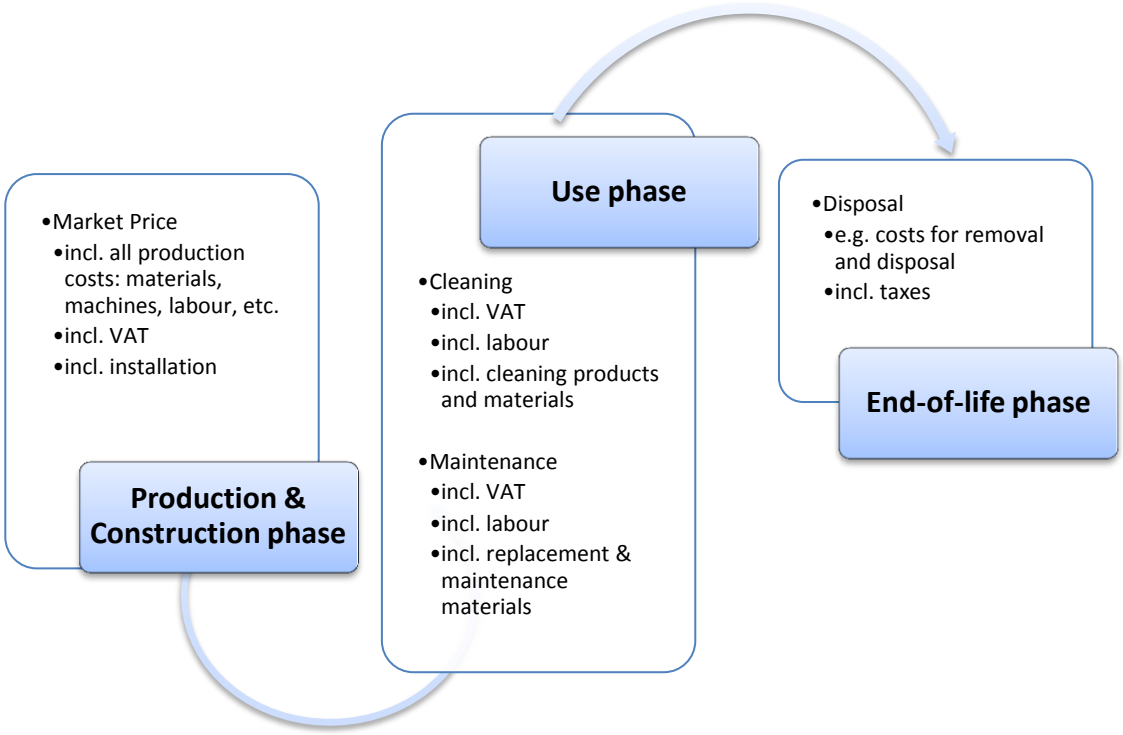


Figure 2 Schematic overview of the items included in the cost assessment.

For the health assessment, the same life cycle approach is followed as for the environmental assessment; this is further explained in the health report (Deliverable 8.2). In this deliverable (D8.5), the former (D8.2) health assessment is updated and some changes are made to the life cycle approach; this is explained in section 2.7.4.

It might be that the environmental, cost and health assessment differ in details during the practical work-out of the calculations, for example due to application of the cut-off rules.

2.3.2 Cut-off rules and exclusions from the system boundaries

The main principles for exclusion of certain processes or materials are the cut-off rules. In principle, only the elements in which the alternatives differ are included; identical parts are excluded. For example, if for an internal wall unit a certain number of screws is needed both for material X and material Y, the screws are not included in the calculations. However, if material X requires 5 screws more than material Y, for example because the material is heavier, those 5 screws are included in the calculations (unless they contribute less than the cut-off boundary, which is explained below). This approach guarantees that the emphasis of the efforts lay on providing insight on differences between the alternatives. This approach is supported by the ILCD (provisions 6.10.V).

The second major cut-off rule is based on the mass and energy balance. All processes and materials that contribute 1% or more to the energy usage and mass of the inputs are included, following EN ISO 15804. The sum of the neglected inputs shall not exceed 5% of both.

Capital goods are included in the environmental assessment, in order to be as complete as possible, as required by the ILCD. For the cost assessment, capital goods are indirectly included, because this kind of indirect costs is included in the consumer price. Infrastructural processes, which are part of the background processes, are included in the consumer price calculations. Losses during the production process are included in the calculations, conform EN ISO 15804. Packaging and storage are excluded in all cases (both BioBuild and references) due to lack of information.

Additionally to these general cut-off rules, there are some specific in- and exclusions in certain life cycle phases:

- In all assessments, transport of workers and equipment are excluded, as well as transport of the product to the user and towards the end-of-life facility.
- In all assessments, the use phase is excluded from the calculations because all cases are supposed to fulfil the same function and their design is adapted to that.
- In the environmental assessment, installation phase was excluded as well as the de-installation phase, because this was considered equal in all case variants. It is included in the cost assessment for reason of completeness.
- The health assessment does not include raw material winning and agricultural production; this is further explained in section 2.7.4.

More information on the reasons for these exclusions from the system boundaries are described in Appendix B (see page 77 and further).

2.4 Calculation methods for life time and end-of-life

2.4.1 Life time and number of replacements

EN ISO 15978 and EN ISO 15804 give only guidance for modelling respectively buildings and the used components or reference service life periods for environmental product declarations. Neither of these norms state provisions on life time calculations in comparative studies of building products. EN ISO 15804 is followed for the principle that the reference service life of the products should be as close as possible to the required service life of the declared unit: an average, realistic required service life period is chosen for that reason. Cases of materials having a longer expected life time than the required service life, are considered as an unnecessary characteristic that exceeds the functional requirements. Therefore no environmental advantage or bonus is added to those materials with longer service life. In some cases, a longer life time might be an environmentally beneficial characteristic, but this is ignored here in order to make a fair comparison based on functional requirements. The designs are developed in such a way that there are no materials that have shorter life times than the required service life, so (partial) replacements are not included in the calculations.

2.4.2 End-of-life

End-of-Life (EoL) is defined as the stage in a product's lifetime, where its initial function is no longer fulfilled. At this point the user has to decide on what end-of-life scenario will be pursued: possibilities are landfill, incineration, reuse, etc. How the potential benefits[3] of end-of-life activities are calculated, is explained in the next section. Following EN ISO 15804, these benefits shall be presented separately from the gross lifecycle results and not as one aggregated number.

2.5 Multifunctionality and multi-output processes

In line with the ILCD, multifunctionality issues are in the first place aimed to be avoided by means of subdivision. If that is not possible, substitution with primary route market mix (the true joint process) is the preferred solution; for example for end-of-life treatments like incineration with energy recovery. The recovered energy is then modelled as a substitution of an average mix of electricity and heat. Recycling of metals can be modelled in a similar way.

When subdivision or substitution is not possible, for example in case of specific by-products or purposeless waste, allocation is needed. Following the two-step procedure of the ILCD (Provisions 7.9.3), physical causalities should be identified in the first place. In case of by-products and waste, mass flows are easily identified as a physical causality. However, allocation on a mass basis is a too narrow approach for by-products and waste streams, because in those cases, the value of the products is the driver for production system. There is a clear distinction between main product and rest products, which justifies the application

[3] E.g. avoided products in case of recycling, or avoided energy production in case of incineration with energy recovery.

of economic allocation, which combines the mass flows with the market price of the different outputs. As economic allocation is a sensitive step in LCA, it is always reported extensively in the appendix with data and in a sensitivity analysis or in the discussion chapter.

2.6 Data requirements

2.6.1 Time-related representativeness

This study aims at making a fair comparison between BioBuild products and technically comparable products coming onto the market in the next years. As a consequence, this study does not consider the current situation, but the future situation in which the BioBuild products are produced on an industrial scale (see also section 2.6.3). However, to be as accurate and realistic as possible, this shift in time is limited to reflect industrial production scale. All other processes reflect todays state-of-the-art technology and no assumptions or alterations are made to reflect on future development. This is in line with the attributional way of modelling that is applied.

Seasonal variation, for example in the case of the production of biological materials, is excluded by the use of average data over one year. The same is done for variation over the lifetime of a plant or tree; the variation over the years is averaged over its lifetime.

Following the ILCD (Provisions 7.4.3.7), long term emissions shall be presented separately from the short (100 year) term emissions. This full Life Cycle Inventory (LCI) is shown in the Appendix F (page 95 and further). Long term emissions are not taken into account in the Life Cycle Impact Assessment (LCIA) step because they are considered too uncertain (predicting effects over thousands of years) to fulfil the goals of this study (focusing on the coming years and predictable effects in the near future). They are added in Appendix F as well.

2.6.2 Geographical representativeness

Since this is a European project, the geographic boundaries of the data are European. In some cases, when the data source requires more specific location choices (e.g. for electricity mixes this is the case), the focus lays on Western Europe (i.e. United Kingdom and Germany), because this matches with the BioBuild design choices. For some data it is possible that a part of the information comes from further abroad, for the reason that not all resources are available in Europe.

2.6.3 Technological representativeness

Following the ILCD, for the foreground data, technology-specific data is preferred above secondary data. The partners in this project are asked to provide their technological information.

Since this study aims at the fair comparison of BioBuild products with market alternatives, it are not the processes on an experimental scale that are investigated, but everything is modelled as if it functions at an industry scale. Although this causes further uncertainty in the assumptions, the results become more representative for commercial scale production and can thus be better compared to other products on the market.

The BioBuild materials and products need further development to optimise their technical performance on for example durability and fire resistance. Therefore the data and results for BioBuild in these report reflect todays best educated guesses. It is recommended to continue the sustainability assessment throughout further product development.

As already mentioned in section 2.6.1, the market alternatives are modelled as they currently are, since future predictions are very uncertain. The effect of modelling the alternatives in their current state could imply an overestimation of the future effects, but we think potential future improvements are marginal, as all products for comparison are mature fully developed building systems. The potential implications of these uncertainties are included in the sensitivity analyses and the discussion section.

2.6.4 Consistency

All cases are studied in consistent and comparable ways. This scope chapter aims at describing all the general principles. For each case, the same system boundaries, LCI modelling principles and method approaches are applied. In case of assumptions or proxies, the same ones are used in all case variants. The data sources of the BioBuild and the reference materials are different by nature, but the aim is to achieve the same minimal level of data quality. If the data quality is strongly differing, the implications are discussed in the final chapter.

2.6.5 Completeness

The BioBuild products are modelled as complete as possible. The applied cut-off rules are already discussed in section 2.3.2. The benchmark references are modelled in a similar way as the BioBuild products.

2.6.6 Data quality and sources

In all cases, process data of the database Ecoinvent 2.0 forms the basis of the calculations, completed by additional information or improved whenever better information is available (from the partners in the consortium). According to EN ISO 15804, the data should be revised 10 years ago or less and the precision of the data should contain less than 10% variance. For the foreground data, these requirements are not applicable, because the products are not yet produced on an industrial scale and no information is available about the variation of the results. The quality of the background data is assured by making use of the most recent version of the internationally accepted database Ecoinvent (version 2) at the start of the project.
In BioBuild, new LCI datasets are created because many of the applied materials and processes do not yet exist in current databases. In order to meet the requirements as described in the previous sections, we follow a three-step approach in data gathering. The first step was to use measured data from literature. Second, if available, the measured data from consortium partners were used. This was for example possible in case of the fibre treatment process analysis. If neither literature nor measurement data were available, the respectively consortium partners were asked for their expert estimation. The quality of these foreground data is discussed in the data tables in Appendix A (see page 61 and further). In the tables, it is described where data originate from and how they are calculated.

The requirements for completeness, preciseness and appropriateness for the benchmark data differ from the BioBuild data requirements, since the benchmarks are only needed to represent average values for generic products in the market. The requirements are satisfied as long as they lead to average environmental profiles for the benchmarks. Most of the input data are gathered from public sources (e.g. technical data sheets) and expert judgements from the partners.

2.6.7 Uncertainties and accuracy

Uncertainties and accuracy are assessed by means of sensitivity analyses on the most striking aspects during data gathering and results interpretation. In the data selection phase, the most important and most unsure assumptions are selected for the sensitivity analysis. In the results interpretation phase, the topics with the highest impact on the total embodied energy are selected for the sensitivity analysis, as well as topics that show surprisingly high impact (>50%) in any other impact category.

2.7 Methodology

This report presents the results of the final assessment of four cases in which the BioBuild product is compared with one or two reference materials per case. Each material is assessed from an environmental, cost and health perspective. The general approach in all assessments is to include all life cycle stages from cradle to grave. Conformity with the ILCD and ISO guidelines is aimed for as far as possible. This paragraph describes which methodologies are applied in this final assessment. The overview is shown in Table 6.

The environmental assessment involves an analysis of the embodied energy, a CO_2 footprint, an environmental footprint including new developed impact categories for biobased products and additional environmental information. The cost assessment is an extension of the performed quickscans (see Deliverable 8.3) with an eco-efficiency analysis. The health assessment is an update of the results published in an earlier stage of the project (see Deliverable 8.2), supplemented with information of the benchmarks.

Table 6 Overview of the sustainability assessments in BioBuild.

Main domain	Sub topic	Assessment type	Indicator(s) used
Environment	Environmental footprint (including carbon footprint)	Midpoint impact categories required by EN ISO 15804 and ILCD. Carbon footprint is included in the form of the GWP impact category.	See Table 7
	Additional impact categories	New categories, developed in Task 8.4.	Land use values, Soil, Water stress; see Appendix D (page 80 and further).
	Embodied energy	Method for cumulative energy demand (CED)	MJ
	Other environmental information	The full LCI is added in the appendix	See Appendix F (page 95 and further)
Costs	Life cycle costing analysis	Total cost of ownership from cradle to grave, thus including disposal costs.	Euros
	Eco-efficiency analysis	Costs versus (non-renewable) embodied energy.	Euros vs MJ
Health	Health assessment	Update of information of D8.2.	

2.7.1 Environmental assessment

Both the ILCD Handbook and EN ISO 15804 prescribe a different set of environmental impact categories. The set prescribed by EN ISO 15804 is smaller. The complete set of the ILCD is not mandatory, but directive (“should”). However, in order to show a broad overview of environmental impacts, the impact categories that are additionally required by the ILCD are included in the results as well. The required impact categories are shown in Table 7.
No weighting is applied because it is a comparative study which will be disclosed to the public, and weighting is not allowed in that case by EN ISO 15804.

Table 7 Set of impact categories as required by EN ISO 15804 and the ILCD Handbook and their appurtenant abbreviations and units.

Required by…	Impact category (ILCD)	Abbreviation	Unit per impact category
EN ISO 15804	Global Warming	GWP	kg CO_2 eq
	Ozone Depletion	ODP	kg CFC-11 eq
	Acidification	AP	molc H^+ eq
	Freshwater Eutrophication	FEP	kg P eq
	Marine Eutrophication	MEP	kg N eq
	Terrestrial Eutrophication	TEP	molc N eq
	Photochemical Ozone Creation	POCP	kg NMVOC eq
	Mineral, fossil & renewable resource depletion	ADP	kg Sb eq
	Water resource depletion	WD	m^3 water eq
ILCD Handbook	Human toxicity	HTP	CTUh
	Particulate matter	PM	kg $PM_{2.5}$ eq
	Ionising radiation HH	IR_{HH}	kg U^{235} eq
	Ionising radiation E (interim)	IR_E	CTUe
	Freshwater ecotoxicity	FAETP	CTUe
	Land use	LU	kg C deficit

Additionally to the standard set of impact categories, the following additional impact categories have been developed in this project, as shown in Table 8. The development process of these impact categories has been described partially in D8.4 and partially in a

scientific article which is submitted but not yet published in an international journal (Keijzer, Jongeneel, Horssen, Vos, Ligthart, & Harmelen, 2015 (submitted - not published)). The results for these impact categories will be shown in an additional graph and compared with the results with conventional methods.

Table 8 Additional impact categories developed in this project for a more detailed assessment of biobased products. HR = human resources, BR = biotic resources.

Impact category	Unit per impact category
Land occupation, HR value	euro
Land occupation, BR value	euro
Land transformation, HR value	euro
Land transformation, BR value	euro
Soil loss	kg/m^2a
Soil organic matter	kg C deficit
Water depletion	m^3 water eq

2.7.2 Cost assessment

The cost assessment in this study is Total Cost of Ownership (TCO) assessment that indicates the material cost per functional unit from the perspective of the user of the product. For the BioBuild designs, the cost assessment was performed by interviewing the partners about material and production costs as known from industrial scale production situations. The costs for the production of BioBuild products are based on material and production costs only, thus excluding profit margins. The expected costs for maintenance, deconstruction and disposal after its life time are also included in this assessment.
For the benchmark products the purchase costs are taken into account, excluding VAT, and complemented with cost information on maintenance, deconstruction and disposal after its life time. The elements included in the cost calculation are coherent with the elements included in the environmental impact calculation, unless stated otherwise.

2.7.3 Eco-efficiency analysis

Eco-efficiency combines the results for the economic an environmental assessment from the point of view that it is desirable to have a product that has both low environmental impact and low costs. In this study the embodied energy is used as the indicator for the environmental impact.
The results for the BioBuild products and for the benchmarks are scaled by expression of the values relative to the mean. The end result is the eco-efficiency graph. The products with the highest eco-efficiency are found in the upper right corner, those with the lowest are found in the lower left corner of the graph. Products obtain the same eco-efficiency when their distance perpendicular to the diagonal is the same. Product A may achieve this mainly by an economic efficiency, while product B may reach it by focussing on the environmental efficiency.

2.7.4 Health assessment

In this project, a life-cycle assessment (LCA) approach to health risks has been developed based on existing methods. By following a life cycle assessment approach, the health assessment is in line with the environmental and cost assessment.
The health assessment method distinguishes between background and foreground processes. The foreground processes are shown in green in Figure 3 and represent processes in the product development on which the BioBuild project focusses. The background processes are not influenced by developments within the BioBuild project. The basic idea of the methodology is to use a less data intensive method for the full life cycle and a more detailed method for the foreground processes in the life cycle.

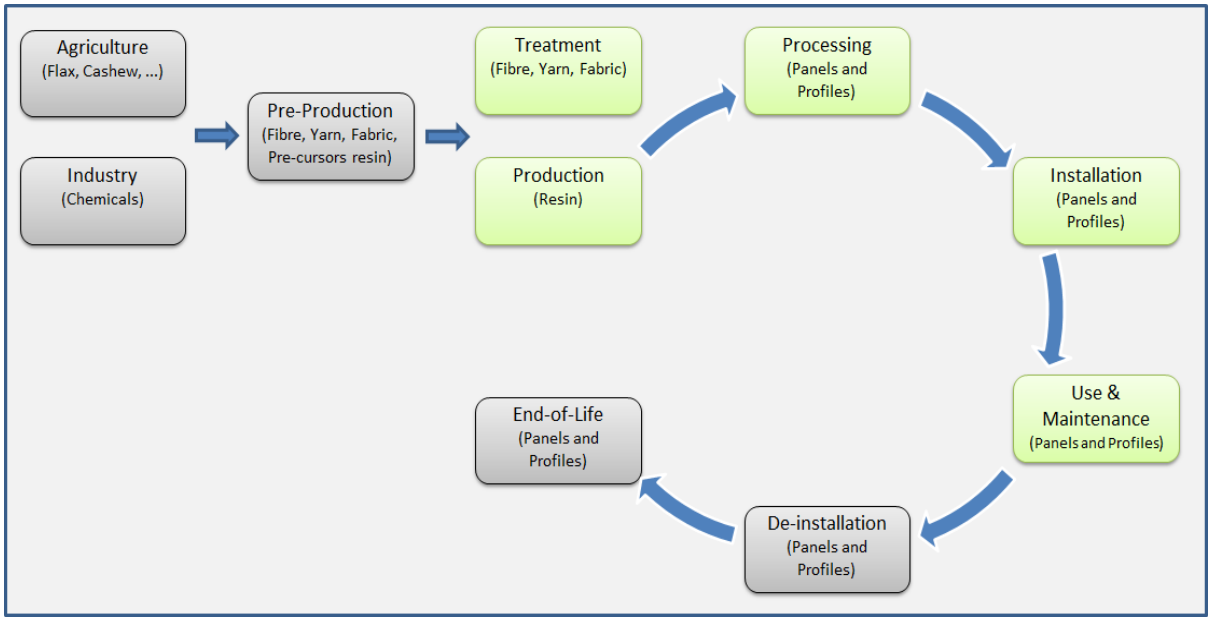


Figure 3 The lifecycle of biocomposites with the foreground processes (in green) and the background processes (in grey).

The health assessment for the foreground processes follows a method proposed by BASF. This type of health assessment identifies the substances that are important from a health-risk perspective. The method uses the R-phrases from MSDS to calculate a toxicity potential. This foreground assessment is reported in the health assessment deliverable (D8.2).
The foreground method is too detailed and too data intensive to be applied on all processes in the life cycle. For most (background) processes that are not in the scope of the BioBuild developments, the necessary data cannot be made available. Therefore the health assessment for the full life cycle (covering both the background and foreground processes) is sector-based, e.g. by grouping activities as agriculture, mining, chemical industry, etc. The full life-cycle method is adapted from a method proposed by UNEP/SETAC. This approach will reveal which stage of the life cycle is associated dominates the health risks over the whole life cycle. The full life cycle assessment is also reported in D8.2 and is updated for this final assessment report (D8.5). In the update, the last versions of the designs have been included as well as refinements of the added values per sector. The added values as used in this final assessment are shown in Table 9.

Table 9 Added values per sector as applied for the health assessment.

ISIC sector	Gross value added (€)	Gross production (kg, MJ)	Calculated added value	Units	Source for gross value added & gross production data
A - Agriculture	$1.93x10^{11}$	$4.58\ x10^{11}$	0.42	€/kg	Average added value of 10 crops in Australian[4] agriculture (Queensland Government Statistician's Office, 2014).
B - Mining/ quarrying	n/a	n/a	0.014	€/kg	(Centraal Bureau voor de Statistiek, 2013)
C – Manufacturing	n/a	n/a	0.51	€/kg	(Centraal Bureau voor de Statistiek, 2013)
F – Construction	n/a	n/a	0.059	€/€	(Centraal Bureau voor de Statistiek, 2013)
L - Real-estate	$1.96\ x10^{12}$	n/a	n/a	€/y	(Eurostat, 2011a)
H - Transport, road	$5.46\ x10^{11}$	$2.1\ x\ 10^{15}$	$2.6\ x\ 10^{-4}$	€/(kgkm)	(Eurostat, 2011a); (Eurostat, 2014)
H - Transport, ocean freight	$195\ x\ 10^{9}$	$3641\ x\ 10^{12}$	$1.2\ x\ 10^{-5}$	€/(kgkm)	Freight handled in European ports in 2010 (European Commission, 2013). Added value (European Commission, n.d.). Average distance (4500 km).
D- Energy supply	$2.19\ x10^{11}$	$7.12\ x10^{13}$	0.0031	€/MJ	(Eurostat, 2011a); (Eurostat, 2011b)
E – Remediation	$1.11\ \ x10^{11}$	$2.46\ x10^{12}$	0.045	€/kg	(Eurostat, 2011a); (Eurostat, 2012a)

Moreover, the life cycle approach of the health assessment has been improved for this final assessment report. In the first assessment round (D8.2), the raw materials of the biocomposites were broken down to the lowest level of detail, meaning that all agricultural processes were included, whilst the benchmark products were split up to the level of basic components (e.g. the ingredients for polyester resin, primary metals) but not to the lowest possible level (e.g. crude oil for chemicals, ores for metals). This discrepancy was eliminated in this updated assessment, by setting the boundaries of the health assessment at the factory gate and ignoring all underlying processes (agriculture, ore mining, crude oil refining). Since neither of these processes is directly influenced by the BioBuild product development, they are less of interest than the foreground processes. All other life cycle stages are still included, which means that the current version of the health assessment is a *gate-to-grave* assessment. This means that the boundaries of the health assessment are not 100% identical to the energy and cost assessment.

2.8 Type of review

As already described in the introduction, this report has been reviewed by an external party. Rocío Fernández Flores of Acciona has reviewed the study in two stages: first, in the summer of 2014, she read and commented on the goal & scope of the study. After these comments, TNO has provided an update of the goal & scope and started the final calculations. The second review step was the review of the calculations and results, in April 2015. TNO has incorporated these comments in the final version of the report. The reviewers' letter has been attached prior to this final report (see page 10).

[4] By lack of European data, this Australian source was the best available alternative.

3 System description

3.1 Introduction

The following paragraphs describe for each case the reference materials and the BioBuild design. The BioBuild products reflect the designs made for the demonstrator units which were presented at Ecobuild. These designs were sent to TNO in February 2015 and might therefore deviate on details from the final mock-ups; if large deviations are expected, this is included in the discussion of the results. This chapter describes also how the optimized designs have been developed. How the reference materials have been selected is described in paragraph 2.2.6. The tables in Appendix A list the design data for each case study.

3.2 Case study 1: External cladding kit

3.2.1 The BioBuild product

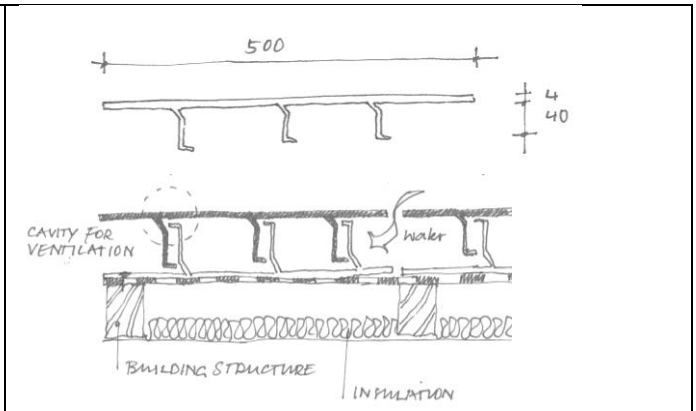
The BioBuild rain screen cladding is assumed to have the same geometry as the Fibreline external cladding, in the benchmark calculation the FRP is replaced by a biocomposite made of flax woven fabric and PFA resin. In the optimized design, the flax is replaced by jute, which could be a mixture of 50% UD and 50% non-woven felt.

3.2.2 The references

Two product references have been selected:

- Alucobond: an aluminium composite panel composed of two aluminium membranes bound to a low density PE core. The aluminium sheets are finished with a polyester coating for aesthetical reasons but also to improve durability. The composite material is folded to a cassette and can be fixed to a backing structure practically invisibly. It is considered as a cost-efficient way to clad an opaque façade. The reference includes 5 mm thick panels of 5.5 kg/m² on an aluminium substructure.
- Fibreline: a GFRP composite panel on a local GFRP sub construction. The panels are coated with an epoxy resin. This material is engineered according to the requirements of the application, meaning the cladding can be optimised for every building. The material can be fixed invisibly and due to its translucent nature, can swing between being an opaque and a translucent façade cladding.

An illustration of the reference products is shown in Figure 4.



Alucobond panel		Fibreline façade system

Figure 4 Illustration of an Alucobond panel (left) and a Fibreline façade system (right). Calculations do not include sub constructions shown.

3.3 Case study 2: External wall panel

3.3.1 The BioBuild product

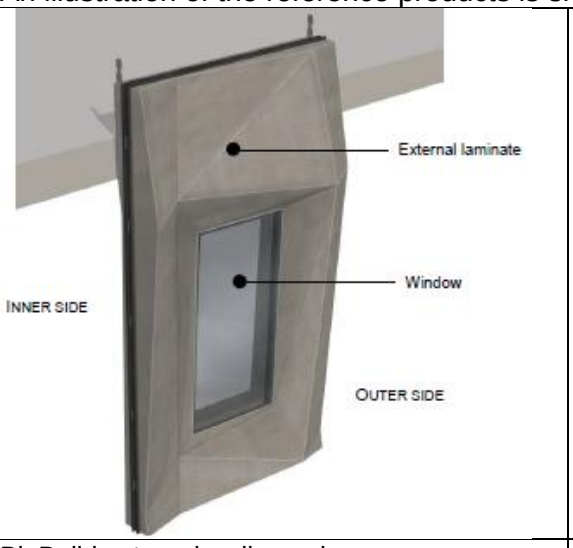
The BioBuild external wall panel is composed of two biocomposite skins on a timber frame filled with a mineral wool insulation material. The internal skin has a standard white finish.

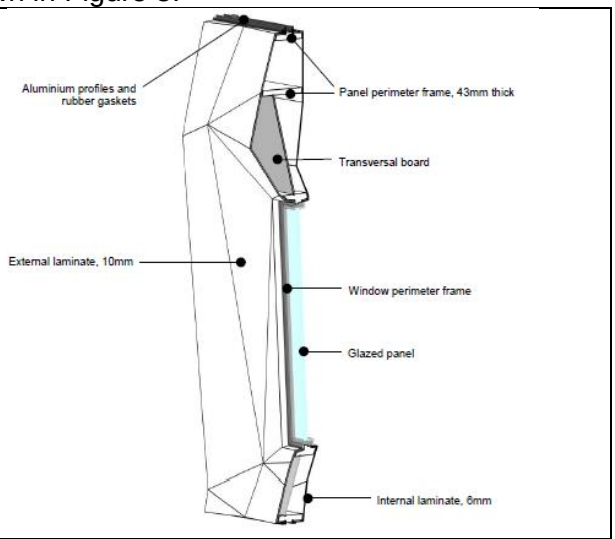
3.3.2 The reference products

There are no direct products that could be representative references for this case study. Therefore the BioBuild design for the external wall panel is used with small alterations.

- Aluminium skin: this panel is composed of two skins of aluminium on a timber frame filled with a mineral wool insulation material. The internal skin has a standard interior finish.
- Composite skin: this panel is composed of two skins of a hand laminated composite (60% glass fibre, 40% polyester) on a timber frame filled with a mineral wool insulation material. The internal skin has a 2K PU coating.

An illustration of the reference products is shown in Figure 5.





BioBuild external wall panel		Section of BioBuild external wall panel

Figure 5 Illustration of the BioBuild external wall panel.

3.4 Case study 3: Internal partition kit

3.4.1 The BioBuild product

The BioBuild partition wall is composed of two outer skins of biocomposite mounted to a timber frame filled with mineral wool insulation. An internal partition kit is commonly used to

create different spaces in an open plan layout, as often seen in office buildings. The walls are suspended from a rail system on the ceiling and can be removed when desired.

3.4.2 The reference product

One product reference has been selected:

- Dorma Modernfold: a partition kit composed of two MDF outer skins with an HPL finish, mounted to an aluminium frame filled with a mineral wool insulation.
- A technically feasible partition wall out of FRP has not been identified and is therefore not benchmarked.

An illustration of the reference product is shown in Figure 6.

Modernfold movable wall by Dorma

Figure 6 Illustration of a Modernfold wall by Dorma.

3.5 Case study 4: Suspended ceiling kit

3.5.1 The BioBuild product

The BioBuild suspended ceiling kit is composed of biocomposite lamellae, each of 3 mm thickness. These lamellae are connected to an aluminium substructure, composed of T-profiles that connect to an aluminium supporting system, with 2 standard aluminium supporters per square metre. Thus a permeable ceiling screen is generated, that is open when directly looking at it standing under it, however is completely closed looking at it from an angle.

3.5.2 The reference products

One reference product has been selected:

- A timber lamella system, with 3 cm thick spruce plywood lamella. These lamellae are suspended from the same system as the BioBuild ceiling kit, with a similar aesthetic.
- A technically feasible suspended ceiling kit composed of lamellae out of FRP has not been identified and is therefore not benchmarked.

An illustration of the reference product is shown in Figure 7.

Timber lamella system

Figure 7 Illustration of a timber suspended ceiling.

4 Results

4.1 General introduction to interpretation of the results

This chapter gives the results on the sustainability performance of BioBuild products against the performance of products already on the market.

The environmental results focus on embodied energy, as the primary goal of the project is to reduce the embodied energy content of building products. The results for the other environmental impact categories can be found in Appendix E and are interpreted in the paragraphs for each case study.
The results of the cost assessment, the shown costs of BioBuild products exclude profit for the producer, while the benchmark costs are based on purchase costs for the user. The difference between the BioBuild costs and the benchmark costs is thus showing the potential profit (or loss).
The graphs for the health assessment show calculated impacts based on material flows, added values and incident rates on a sector level. Obviously, this approach is thus not based on actual measured incidents in the BioBuild product chain, nor for the benchmark products. These results can be interpreted as an indication of the general risks in the product chain, but should not be considered as exact predictions.

As the BioBuild products are still under development, all of the results in this chapter are based on educated best guesses on the sustainability impact for a commercial produced product. The results for the BioBuild products are calculated under the assumptions that the technical requirements are met, and that products can fulfil the designed service life. Testing reveals that further development is needed to meet the requirements. When further developed, an update of the sustainability assessment is recommended. Moreover, the data for this assessment are produced in February 2015, when most details of the demonstrator units were known but some details changed later. When this was the case, it is described in the results' discussion in the next paragraphs.

There is one general difference in the designs of the BioBuild products as assessed in this reports, compared to the BioBuild demonstrator mock-ups that were presented at Ecobuild, which is the coating. The coating has been a point of attention for the whole project due to its role to meet durability- and fire performance requirements. The different potential combinations of solvent based, water based, intumescent, fire retardant and basic coatings have been compared in the quickscan process (see Deliverable 8.3). The quickscan revealed that the differences between the coatings were not of major influence on the total embodied energy of the case study products, except for choosing gelcoats or white coats. Which coatings were decided to be applied in February 2015, and thus included in the calculations, is shown in Table 27. In the final demonstrator mock-ups, PUR coating has been applied. This change might mean that the BioBuild demonstrator's embodied energy could be slightly higher than presented in this report.

4.2 Case study 1: External cladding kit

4.2.1 Environmental

Figure 8 shows the embodied energy of the four variants of the ECK. The graph shows a large difference between the BioBuild demonstrator design and the optimized variant. The embodied energy of the BioBuild demonstrator unit is about 10% lower than the aluminium benchmark and 35% higher than the GRP benchmark. However, the optimized design has the lowest embodied energy of all options. The embodied energy of the optimized variant is twice as low as the aluminium benchmark and 10% lower than the GRP benchmark.
In the last stage of the project (after the calculations were finalized and reviewed), research of IVW showed that the embodied energy of the optimized variant could even be a few percent lower, because the ECK could be produced without adhesives. This improvement was discovered too late to include it in the calculations, but it is a typical example of all minor

changes which could help to reduce the embodied energy of the BioBuild products after further development.
In all case variants, the cladding contributes most to the total embodied energy of the products. The cladding also has the most reduction potential for the BioBuild case. The material choice for the substructure and insulation and the energy recovery or recycling potential of the product after its life time are other important factors in the energy graph.

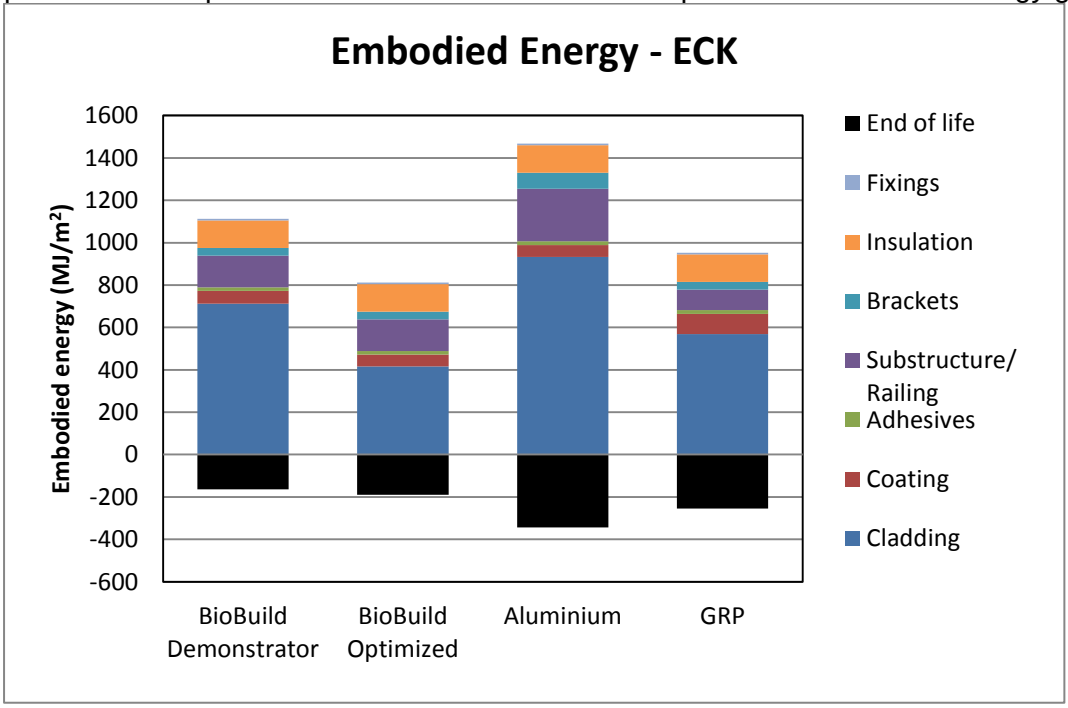


Figure 8 Embodied energy (non-renewable energy) of the ECK variants, shown on a component level. End-of-life impacts of all components are shown in black, separated from score of the components themselves.

The overview of all environmental impacts, meaning both the ILCD impact categories as well as the bio-related environmental impact categories, of the BioBuild Demonstrator ECK as well as the four ECK variants compared to each other, are listed in respectively Table 42 and Table 43 in the Appendix. In all impact categories, the cladding contributes most to the impact scores in the BioBuild demonstrator design. The two BioBuild designs differ significantly: the optimized variant has a lower environmental impact in almost all impact categories compared to the demonstrator unit. Hence, the reduction potential for embodied energy has also other environmental benefits. When comparing the optimized design with the benchmarks, the impact is higher for some impact categories and lower for other impact categories. Without weighing the impact categories one cannot conclude which product has the lowest environmental impact.
The bio-related impact categories show much lower values for the optimized design in comparison to the demonstrator unit, except for two impact categories: land transformation (for human resources) and water depletion. The impact on land transformation and water use is most related to the choice of fibres. The BioBuild demonstrator unit is made with non-irrigated flax, while the optimized design is made with (partially) irrigated jute. As the jute origin is uncertain, the application of non-irrigated jute in this case could reduce the impact on water use to the same level as the demonstrator design. The bio-related impacts are a useful tool to compare different biobased products, thus unsurprisingly the (non-biobased) benchmarks have very low scores in these impact categories.

4.2.2 Costs

Figure 9 shows the results from the life cycle costing assessment of the ECK BioBuild demonstrator unit compared to the benchmarks. The demonstrator unit costs are about 10%

lower than the two benchmarks. Similar to the embodied energy graph, the cladding contributes most of all components to the costs in each product variant. The three variants are differing in details only. The next paragraph will reveal that the optimized BioBuild design for embodied energy does also have the potential to further decrease the costs of the BioBuild product.

The costs of the benchmarks are based on actual market process, while the costs of the BioBuild product is based on estimated costs only (without a profit margin for the producer). This cost assessment of Life Cyct sotst from the perspective of the building owner can be updated for actual market prices when BioBuild products are fully developed, meeting technical requirements, and are ready to enter the market.

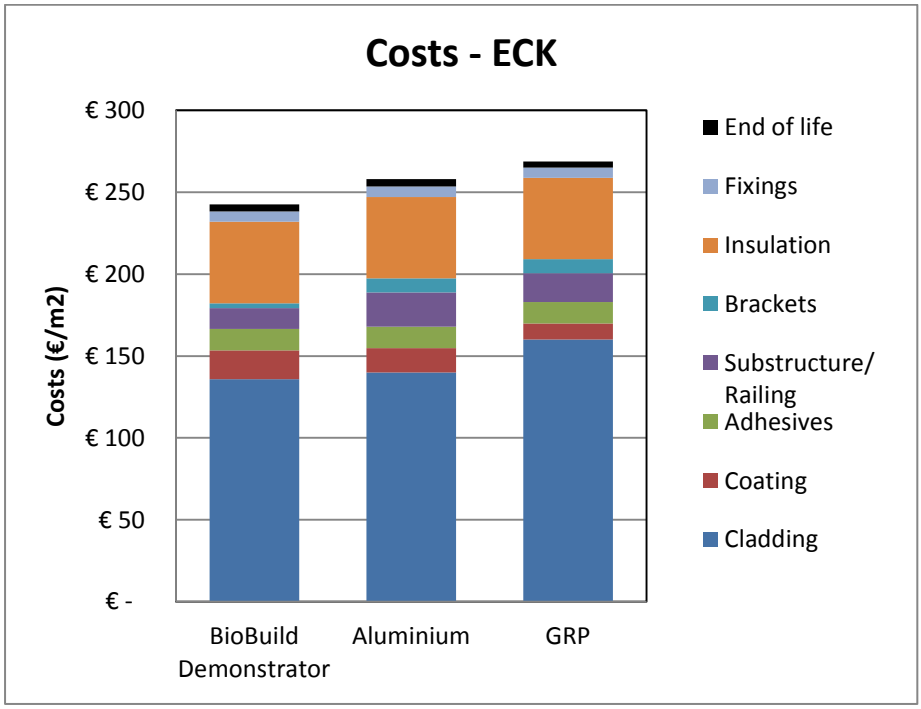


Figure 9 Estimated costs of the ECK variants. The reference products represent the market price of the product plus the estimated maintenance and end-of-life costs. The BioBuild product represents the estimated production costs plus maintenance and end-of-life, so is lacking any profit margins or investment cost payback.

4.2.3 Eco-efficiency

Figure 10 shows the Eco-Efficiency of the ECK variants, with on the X-axis the relative costs (compared to the average value of the four variants) and on the Y-axis the relative value for embodied energy. The graph shows that although the BioBuild demonstrator unit has relative high embodied energy against average costs, the optimized design is truly optimized, since it is supposed to be both cheaper and having a lower embodied energy than all other variants. The aluminium variant lies in the “most red” part of the graph, due to having the highest embodied energy. The GRP and the BioBuild demonstrator unit are both in the orange area, as a result of relatively small differennces in costs and embodied energy.

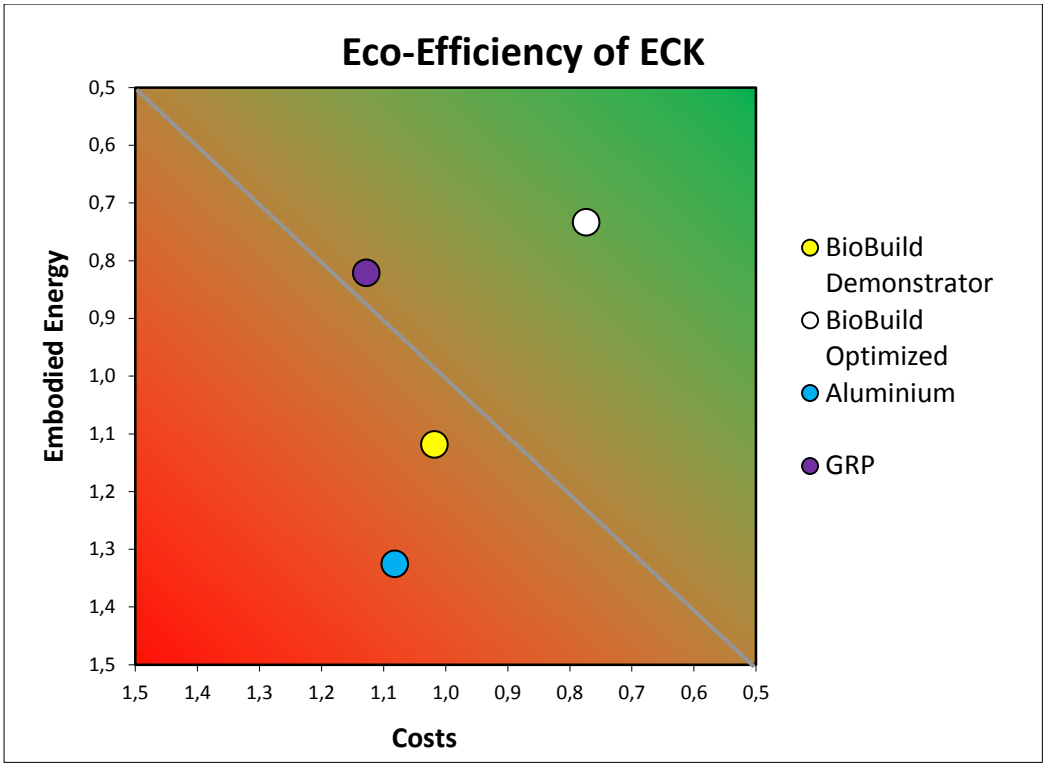


Figure 10 Eco-Efficiency of the ECK variants.

4.2.4 Health

Figure 11 shows the health impacts of the External Cladding kit variants. The results for the BioBuild demonstrator unit are shown on the left hand side of the graph. For each of the products the fatal and non-fatal incident numbers are calculated. As fatal incidents occur in lower numbers compared to non-fatal incidents, the results for fatal accidents have been multiplied by a factor of 1000 to allow presentation on the same graph as the non-fatal accidents.

Comparing the BioBuild demonstrator to the GRP and aluminium benchmarks, BioBuild has a lower health impact than the GRP product, and a similar health impact as the aluminium benchmark. The health impact of the BioBuild demonstrator unit is most associated with the amount of bagasse that is used as a resource for the resin. If other resources than bagasse would be used for the precursors of the resin –resources that produce more precursors per kilogram of resource input- the health impact of the BioBuild demonstrator would be lower.

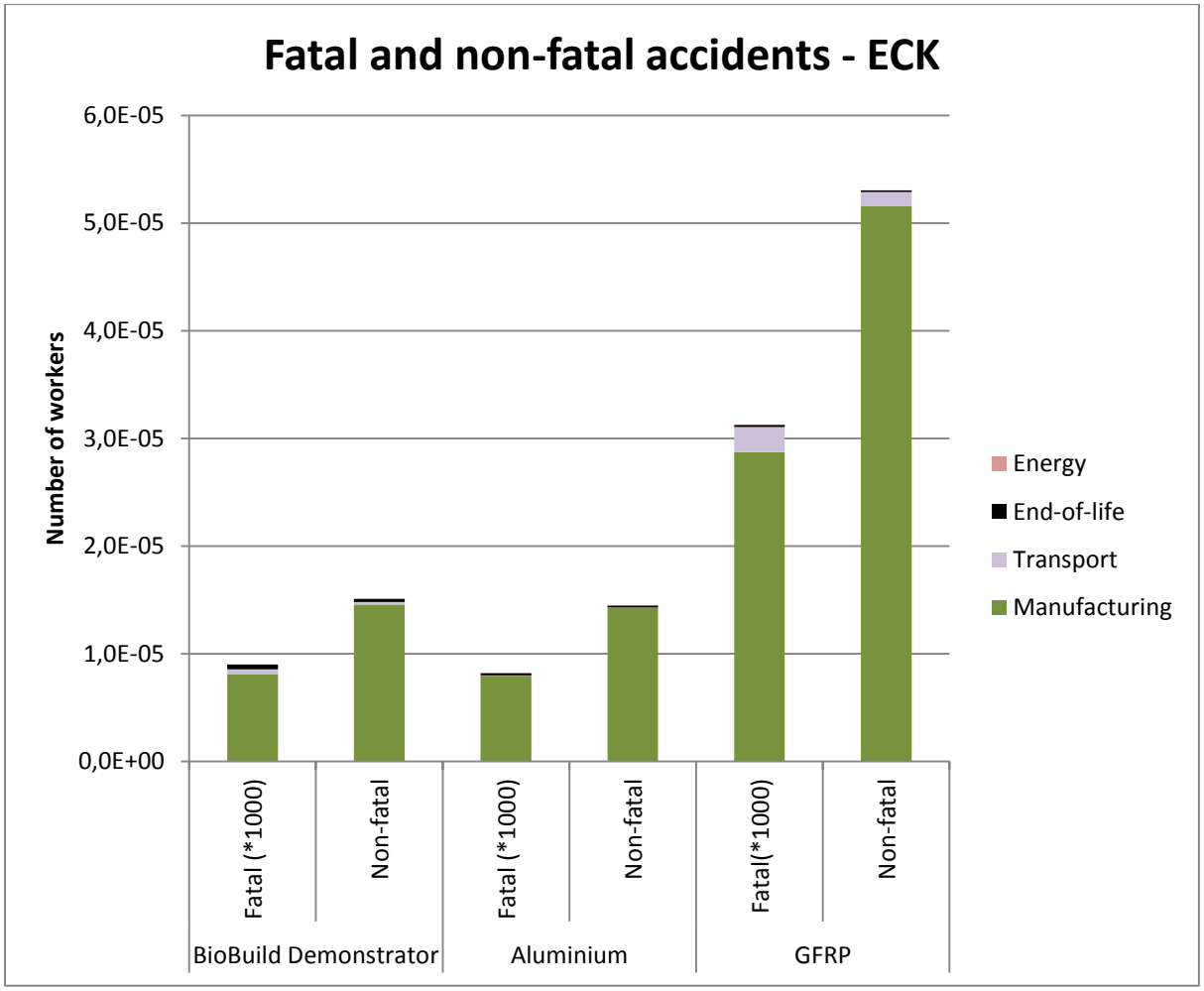


Figure 11 Health incidence results of the ECK variants.

4.2.5 Summary of ECK results

The BioBuild demonstrator unit has a slightly lower score on embodied energy and costs than the benchmarks, but the optimized ECK shows that there is the potential for BioBuild to score substantially lower than the benchmarks. The BioBuild demonstrator unit has a lower impact on health incidents compared to the GRP benchmark.

4.3 Case study 2: External wall panel

4.3.1 Environmental

Figure 12 shows the embodied energy of the four variants of the EWP. The large negative bars for end-of-life (due to recycling and incineration with energy recovery) make it complex to see the net results, but the net embodied energy for the whole life cycle of the EWP variants is 2100 MJ for the BioBuild demonstrator unit, 1800 MJ for the optimized variant, 1500 MJ for the aluminium benchmark and 1900 MJ for GRP. Giving the uncertainties in the assessment one can conclude that the differences between the product variants are relatively small and that the embodied energy of all products is more or less in the same order of magnitude. The impact of the benchmarks is slightly lower than the BioBuild demonstrator design; this is mainly due to the low embodied energy of the benchmarks' skins and the high recycling benefits of aluminium. The BioBuild optimized design scores in between the two benchmarks: lower than GRP but higher than aluminium.

The difference between the BioBuild demonstrator unit and the optimized design is 300 MJ (14%). The optimized design includes 100% UD fibres, of which it is not sure whether this is technically feasible. If further development of the BioBuild EWP would show that the fibres

would need to be a mix of UD and woven fabric instead of UD only, this means that the embodied energy results in Figure 12 would end up somewhere between the value of the demonstrator and optimised design.

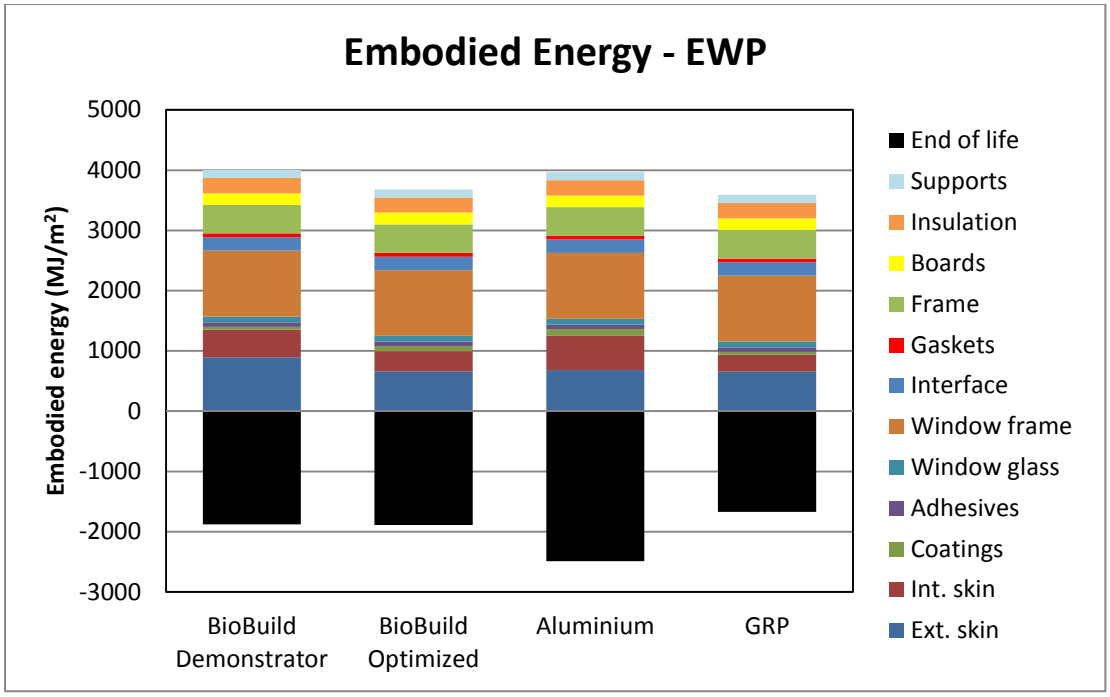


Figure 12 Embodied energy (non-renewable energy) of the EWP variants, shown on a component level. End-of-life impacts of all components are shown in black, separated from score of the components themselves.

The overview of all environmental impacts, meaning both the ILCD impact categories as well as the bio-related environmental impact categories, of the BioBuild Demonstrator EWP as well as the four EWP variants compared to each other, are listed in respectively Table 44 and Table 45 in the Appendix. In several impact categories, the external skin contributes most to the impact in the BioBuild design, but the internal skin, the window frame, the gaskets, the wooden frame and the end-of-life have large impacts in certain categories as well. Contrary to the other cases discussed in this report, embodied energy cannot be used as a proxy for estimating all environmental impacts. The main reason for this is that the nature of the materials used is of such a difference, that the impacts related to them are very different as well.

In the comparison of the four variants, the optimized impacts score lower than the demonstrator units for all impact categories except two (water depletion and non-renewable embodied energy). The difference between the optimized design and the benchmarks varies; often the optimized design has slightly higher values than the benchmarks, but for some impact categories aluminium and/or GRP score higher. As a result of the relative small differences between the products, and the fact that the ranking of the products differs per impact category, it is impossible to conclude which EWP variant has the best overall environmental performance.

The bio-related results show large differences between the impact categories. The results with the new land occupation assessment method show about equal values for all four variants, whilst there is a large difference in the transformation effects for human related impacts (optimized scores by far the lowest impact here). The soil loss and SOM impacts show a high impact for the BioBuild demonstrator and lower values for the three alternatives. Water depletion results are different from the land use impacts; in both water impact assessment methods (ILCD and BioBuild's method), the optimized design has the highest

score of the four variants. This is due to the irrigated jute. However, since jute can also be produced without irrigation (rain fed), there is a potential to reduce this impact if desired.

4.3.2 Costs

Figure 13 shows the results from the life cycle costing assessment of the EWP BioBuild demonstrator unit and the two benchmarks. The costs are differing only a few percent on the total, due to the large part of the costs which is the same in all variants (in the legend: the components from *window glass* till *supports*). The differences in the costs for the external and internal skin are quite substantial; respectively 151 and 106 €/m^2 (together: 257 €) for the demonstrator unit, 101 and 91 €/m^2 (together: 192€) for the aluminium benchmark and 159 and 90 €/m^2 (together 249 €) for the GRP variant. This means that the BioBuild demonstrator unit does not differ much from the GRP variant, but the aluminium variant is slightly cheaper.

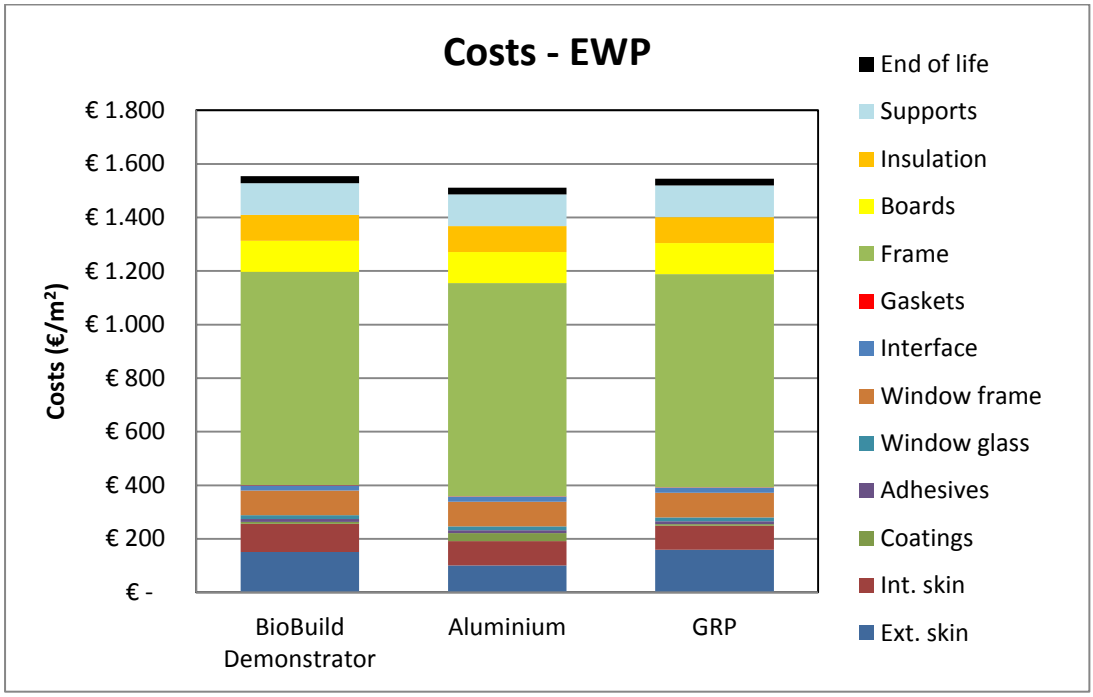


Figure 13 Estimated costs of the EWP variants. The references products represent the market price of the product plus the estimated maintenance and end-of-life costs. The BioBuild product represents the estimated production costs plus maintenance and end-of-life, but is thus lacking any profit margins or investment cost payback.

4.3.3 Eco-efficiency

Figure 14 shows the Eco-Efficiency of the EWP variants, with on the X-axis the relative costs (compared to the average value of the four variants) and on the Y-axis the relative value for embodied energy. Since the costs do not differ much (as discussed in the previous paragraph), the dots in the eco-efficiency graph are lying on a vertical line, only showing a differentiation in embodied energy, in the order of magnitude of 20%. Giving all uncertainties in the assessment the eco-efficiency of all product variants is more or less in the same order of magnitude.

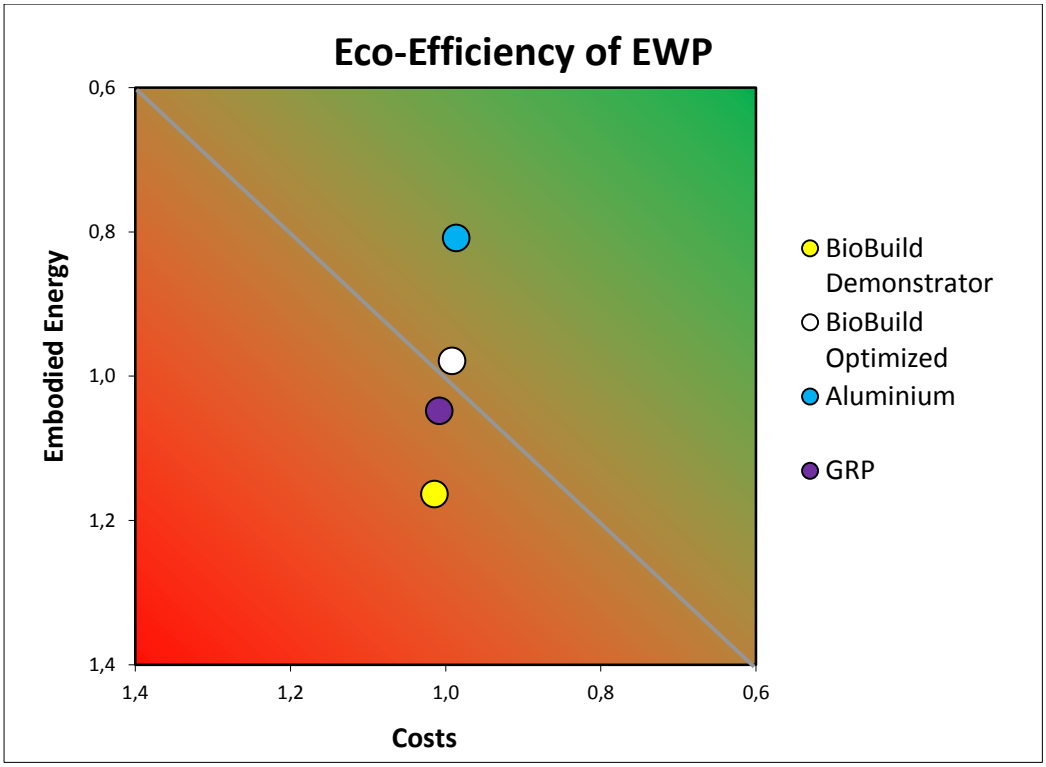


Figure 14 Eco-Efficiency of the EWP variants.

4.3.4 Health

Figure 15 shows the health impacts of the EWP variants. Similar to the health results of the ECK the BioBuild demonstrator unit results are shown to the left, and are compared to an aluminium and a GRP benchmark. The ranking of results between the GRP, aluminium and BioBuild products for ECK and EWP are quite similar: BioBuild scores in between aluminium (which is lower) and GRP (which has higher health impacts). The origin of the health impacts in the three variants are to a large extent similar because many components are equal. The explanation for the difference between the relative results for GRP and aluminium is the amount of aluminium used.

Transport contributes significantly to the health incidents associated with the BioBuild demonstrator unit. For this product the biopolyester resin is used, and a large share of the transport logistics is over land, from one continent to Europe. Transport over land is associated with more health incidents than transport over sea. When the biobased economy is further developed, it can be expected that more biobased resources and products will become available world-wide, which gives the possibility to dramatically decrease the transport distance over land (either because the resin or its resources are transported over water, or the resin/ resources are produced closer by). When transport over land is reduced to the amount of transport that is associated with other chemical production, the health incidents related to BioBuild would become lower. If PFA resin is used instead of the biopolyester resin, the health risks of manufacturing might decrease due to the difference in transport mode, but involving PFA resin would also require other production techniques and the net result cannot be quantified by reasoning only; that would require a further study.

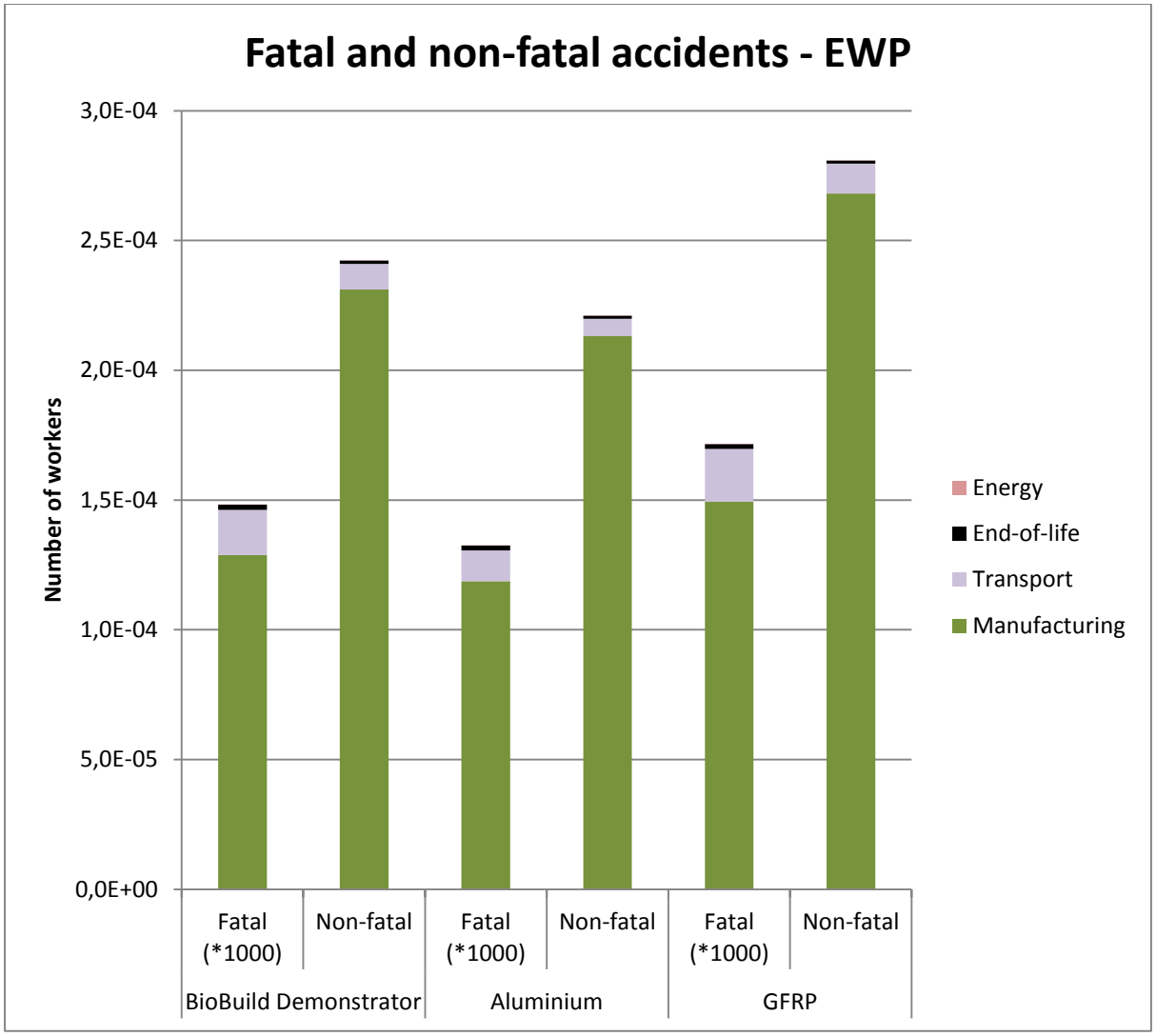


Figure 15 Health incident results of the EWP variants.

4.3.5 Summary of EWP results

The embodied energy of the BioBuild demonstrator is higher than the benchmarks, while the embodied energy of the optimized design scores in between the two benchmarks. The optimized design can compete with the embodied energy of the GRP benchmark. The results in the other environmental impact categories are more difficult to interpret, since the materials used have quite different characteristics and different scores in all impact categories. The other impacts cannot be summarized in one main conclusion except that the optimized design scores almost always better than the demonstrator unit. The bio-related results show large differences between the impact categories as well.

The EWP costs are differing only a few percent on the total, due to the large part of the costs which is the same in all variants. The differences in the costs for the external and internal skin are quite substantial; the BioBuild demonstrator unit does not differ much from the GRP variant, but the aluminium variant is significantly cheaper. Since the costs differ this little, the eco-efficiency graph only shows differentiation in energy results.

With respect to the health impact, BioBuild scores in between aluminium (which is lower) and GRP (which has higher health impacts). Regarding health incidences, the result depends heavily on the choice of resin and resin resources for the BioBuild product and the associated transport. However, change of resin would involve also a change in processing technique and the net impact of this change cannot be seen straightforward; this would require further research during the future development of the BioBuild products.

4.4 Case study 3: Internal partition kit

4.4.1 Environmental

Figure 16 shows the embodied energy of the three variants of the IPK. The graph shows a large difference between the BioBuild demonstrator design and the optimized variant. The demonstrator unit has an embodied energy which is twice as high as the Dorma benchmark. The optimized design has about the same level of embodied energy as the benchmark (respectively 739 and 624 MJ/m^2 of net embodied energy). The end-of-life stage has a significant impact in all three variants, but is comparable for all three. The main difference between the variants is the panel component. The BioBuild optimized panel has a lower impact than the demonstrator panel. The Dorma panel even has a much lower impact, but has an alternative design with a large energy burden due to the structure behind the panel, which annihilates the benefits of the low energy panel.

The IPK demonstrator design as shown below differs from the final mock-up presented at Ecobuild with respect to the insulation material used. At the moment of the assessment, it was planned to use rock wool for the BioBuild designs, but for Ecobuild this has been replaced by cork. From the quickscan exercises (Deliverable 8.3) it is known that cork foam would have a similar net embodied energy compared to rock wool, so this change will not alter the results significantly. Expandable cork generally scores better than rock wool, so if this material would be applied in the BioBuild designs, the energy results would become even lower. However, since the impact of insulation material is relatively low compared to the total impact (as shown in Figure 16), the change in insulation material will not influence the total results significantly.

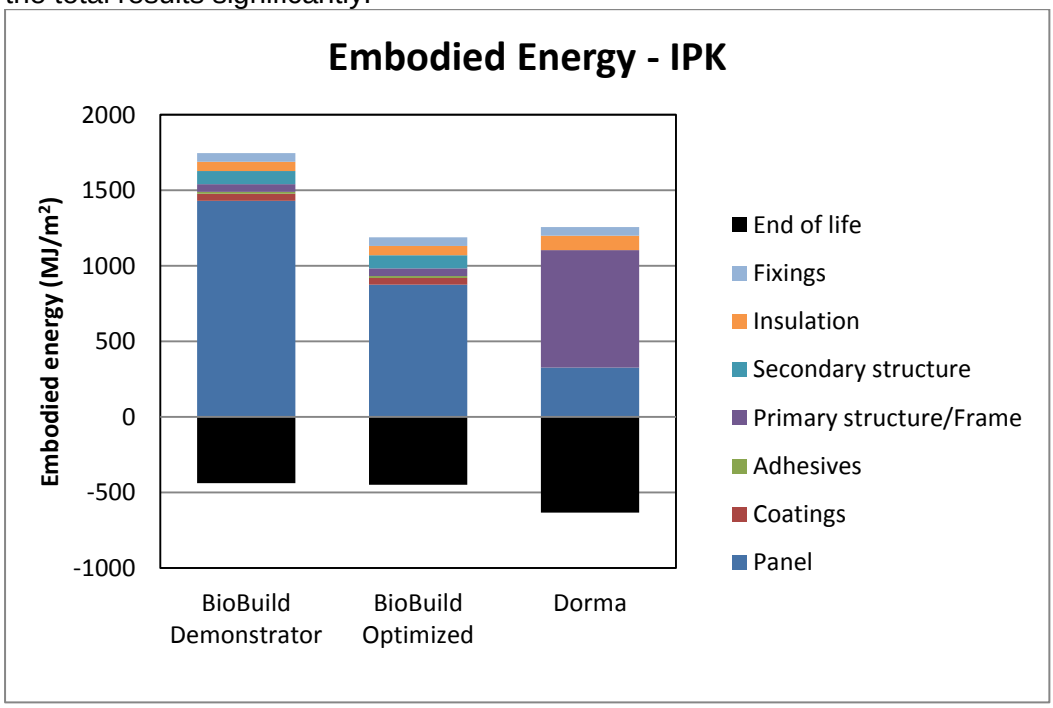


Figure 16 Embodied energy (non-renewable energy) of the IPK variants, shown on a component level. End-of-life impacts of all components are shown in black, separated from score of the components themselves.

The overview of all environmental impacts, meaning both the ILCD impact categories as well as the bio-related environmental impact categories, of the BioBuild Demonstrator IPK as well as the three IPK variants compared to each other, are listed in respectively Table 46 and Table 47 in the Appendix. In all impact categories, the panel contributes most to score of the BioBuild demonstrator design. Comparing the three variants reveals a significant difference between the two BioBuild designs: the optimized variant has a lower environmental impact than the demonstrator unit in all impact categories. Therefore, the reduction potential for

embodied energy has also remarkable other environmental benefits. When comparing the optimized design with the benchmark, the impact of the benchmark is often lower, except for mineral and fossil resource depletion where the benchmark scores several times higher than the BioBuild designs.
The optimized design scores about 5 to 25% lower for all bio-related impact categories in comparison to the demonstrator unit. The non-biobased Dorma scores much lower than the two BioBuild variants, which is logical since these categories are meant to compare biobased products and are not expected to show high values for other products.

4.4.2 Costs

Figure 17 shows the results from the life cycle costing assessment of the IPK BioBuild demonstrator unit and the Dorma benchmark. The demonstrator unit costs are about twice as low as the benchmark, which is a very good result for a product that is still under development. Not the panel, but the primary structure contributes most to the BioBuild costs. Further improvement could be investigated in this component, since the panel has already very low costs compared to the benchmark (six times lower).

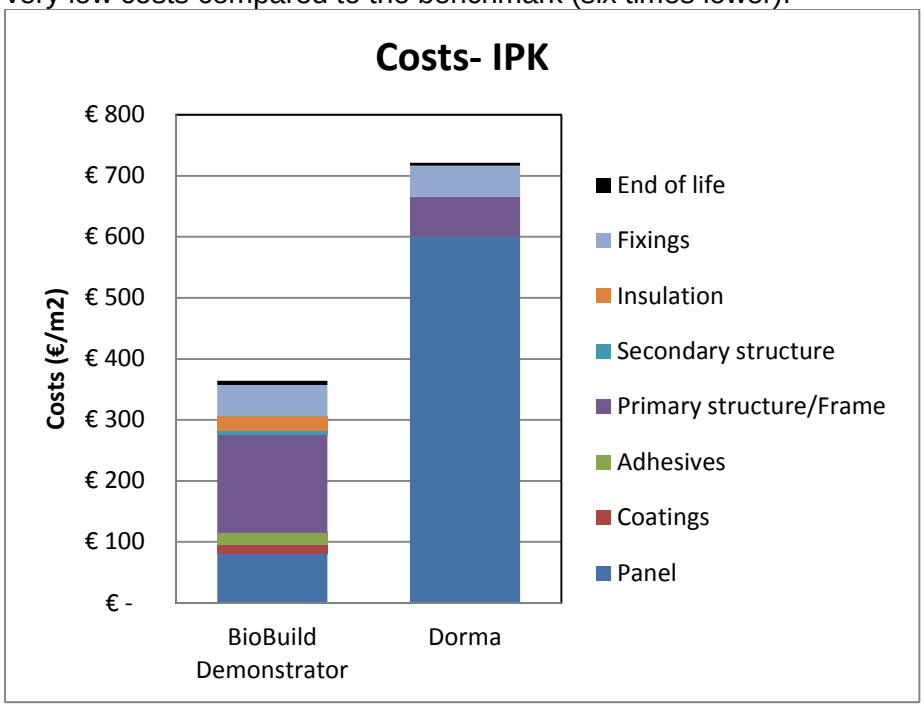


Figure 17 Estimated costs of the IPK variants. The references product represents the market price of the product plus the estimated maintenance and end-of-life costs. The BioBuild product represents the estimated production costs plus maintenance and end-of-life, but is thus lacking any profit margins or investment cost payback.

4.4.3 Eco-efficiency

Figure 18 shows the Eco-Efficiency of the IPK variants, with on the X-axis the relative costs (compared to the average value of the three variants) and on the Y-axis the relative value for embodied energy. The graph shows that the BioBuild demonstrator unit has a relative high embodied energy against low costs, while the Dorma benchmark scores the other way around. The optimized design has embodied energy in the same order of magnitude as Dorma, against costs that are comparably low as the BioBuild demonstrator. Having both low costs and a low embodied energy, the BioBuild optimized design is most eco-efficient of the three variants.

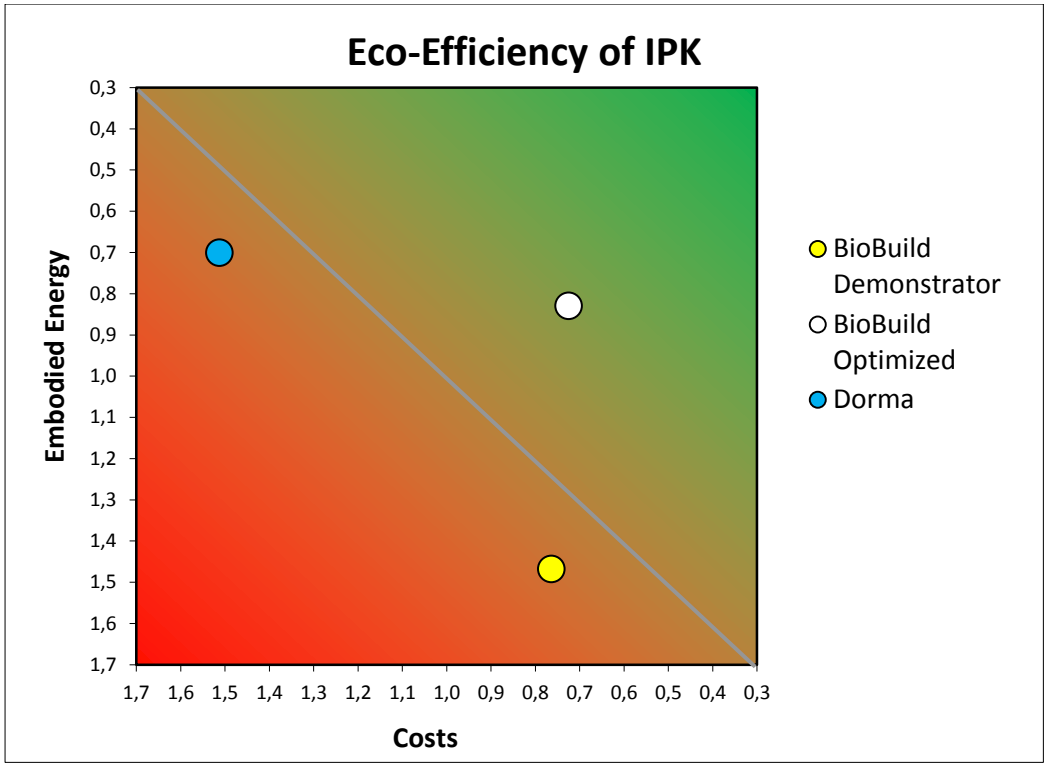


Figure 18 Eco-Efficiency of the IPK variants.

4.4.4 Health

Figure 19 shows the health incidence results for the BioBuild demonstrator unit (on the left of the graph) and the Dorma benchmark. The BioBuild demonstrator unit is associated with twice as many health incidents as the benchmark. Similar to the ECK, the bagasse associated with the resin production for the IPK dominates the health incidents related to manufacturing. If other resources than bagasse would be used for the precursors of the resin –resources that produce more precursors per kilogram of resource input- the health impact of the BioBuild demonstrator would become lower.

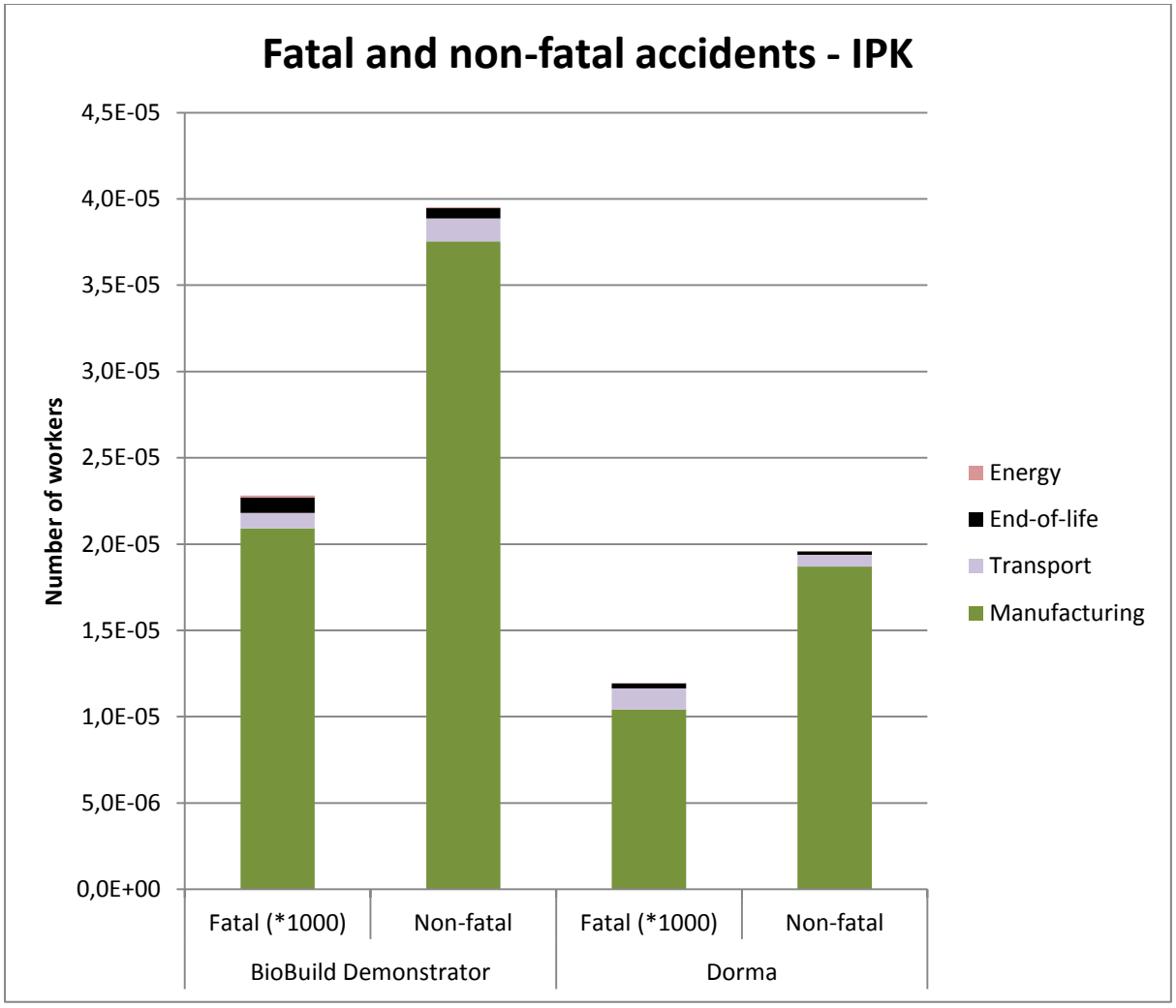


Figure 19 Health incidence results of the IPK variants.

4.4.5 Summary of IPK results

The BioBuild demonstrator unit has a higher score on embodied energy than the benchmark, but the costs are almost twice as low. The optimized design shows that the embodied energy could be reduced to the almost same level as the benchmark, while the costs remain twice as low as the benchmark.

As indicated before, the health impact of the BioBuild demonstrator unit is largely determined with the amount of bagasse that is used as a resource for the resin. If other resources than bagasse would be used for the precursors of the resin –resources that produce more precursors per kilogram of resource input- the health impact of the BioBuild demonstrator would become lower.

4.5 Case study 4: Suspended ceiling kit

4.5.1 Environmental

Figure 20 shows the embodied energy of the three variants of the SCK. The graph shows a large difference between the BioBuild demonstrator design and the optimized variant: the optimized variant scores almost 50% lower (560 MJ/m^2 versus 300 MJ/m^2 of net embodied energy). The embodied energy of the optimized design is about 40% higher than the timber benchmark.

In all cases, the lamellae have a large impact on the total. It also has the highest reduction potential for the BioBuild case. The substructure and the amount of energy recovery after the product's life time are other significant factors in the embodied energy of all three variants. The difference in coating procedure between the BioBuild designs and the benchmark could

be discussed, since the coating has both an aesthetic and a fire performing function. It could be argued that the BioBuild designs do not need coatings if they are appreciated as they are, similar to the timber benchmark. In that case, and if the coatings would not be needed for fire performance, the coatings could be ignored in the results. However as coating contributes less than 10% to the overall embodied energy, alternatives on coating do not have the potential to change the ranking of BioBuild and the benchmark.

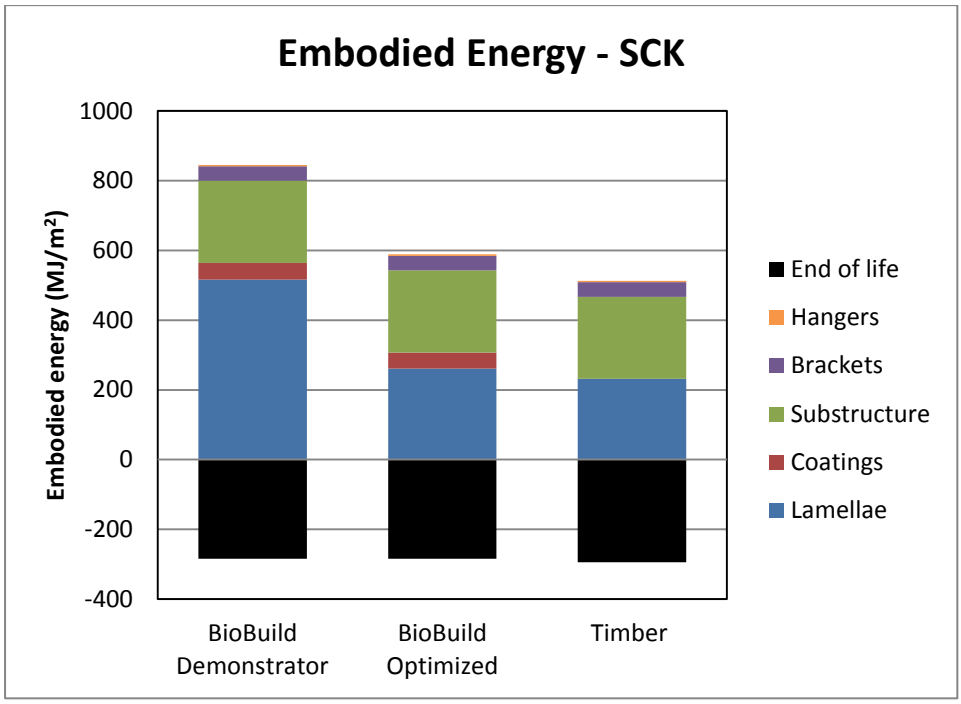


Figure 20 Embodied energy (non-renewable energy) of the SCK variants, shown on a component level. End-of-life impacts of all components are shown in black, separated from score of the components themselves.

The overview of all environmental impacts, meaning both the ILCD impact categories as well as the bio-related environmental impact categories, of the BioBuild Demonstrator SCK as well as the three SCK variants compared to each other, are listed in respectively Table 48 and Table 49 in the Appendix. In most impact categories, the lamellae account for the largest part of the score in the BioBuild demonstrator design. Comparing the three variants reveals a significant difference between the two BioBuild designs: the optimized variant has a lower environmental impact in almost all impact categories than the demonstrator unit. Therefore, the reduction potential for embodied energy has also other environmental benefits. When comparing the optimized design with the benchmark, the impact of the optimized variant is often higher and sometimes lower than the benchmark. Without weighing between the impact categories, it cannot be concluded if the benchmark or the optimized design has the best overall environmental performance.
Contrary to the previous cases, in this case the bio-related impacts of the BioBuild variants can be compared with the benchmark, because timber is also biobased. However, the results are quite complex to interpret on an impact category level. In some impact categories, the optimized design and the timber benchmark have values that are several times higher than the demonstrator unit, while sometimes they are negative. This is mainly due to different modelling of land use types, which causes either high or low scores in different impact categories. For example: land use can be beneficial for human resources, but decreasing biotic resources. The negative values in the tables make interpretation of the results also complex. These negative values are related to the use of the biopolyester resin in the demonstrator unit, which includes by-products that account for an avoided impact. Obviously the bio-related impacts need further development to improve their applicability and

potential to draw conclusions. This applies both for the method developed in this project as for the ILCD proposed method for land use, which is soil organic matter (SOM).

4.5.2 Costs

Figure 21 shows the results from the life cycle costing assessment of the SCK BioBuild demonstrator unit compared to the benchmark. The demonstrator unit costs are about 50% higher than the timber benchmark. Similar to the embodied energy graph, the lamellae have the highest impact of all components in both product variants. Additionally, the coatings seem to have a high contribution to the BioBuild demonstrator costs. This is mainly due to the fact that the costs of the lamellae are relatively low, compared to the other cases (note that the y-axis is expressed in tens of euros per square metre, while the other graphs count in hundreds). As a consequence to the low lamellae costs, the relative contribution of the coatings seems high. In addition to that, it could be discussed whether it is a fair comparison to include coatings in the BioBuild design, but exclude them in the benchmark (as was already discussed next to Figure 20). If the coating would be excluded from the BioBuild designs, the demonstrator costs would differ only 15% from the timber benchmark.

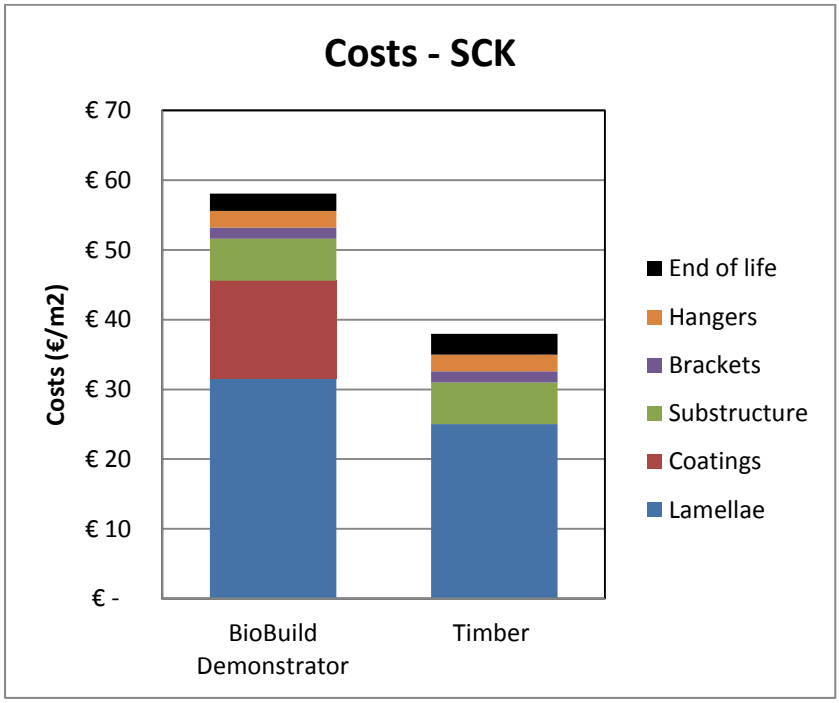


Figure 21 Estimated costs of the SCK variants. The references products represent the market price of the product plus the estimated maintenance and end-of-life costs. The BioBuild product represents the estimated production costs plus maintenance and end-of-life, but is thus lacking any profit margins or investment cost payback.

4.5.3 Eco-efficiency

Figure 22 shows the Eco-Efficiency of the SCK variants, with on the X-axis the relative costs (compared to the average value of the three variants) and on the Y-axis the relative value for embodied energy. The graph shows that the BioBuild demonstrator unit has a relative high embodied energy and average costs. The optimization of the BioBuild design can lead to energy results that are closer to the timber benchmark, while the costs will remain about average.

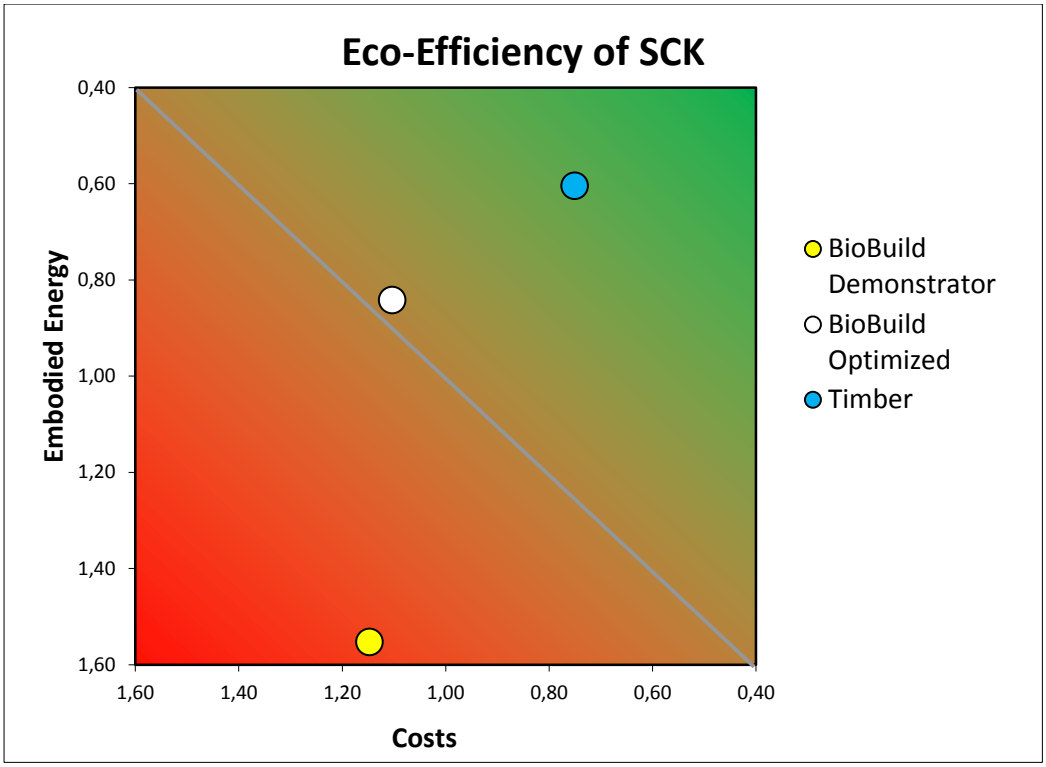


Figure 22 Eco-Efficiency of the SCK variants.

4.5.4 Health

Figure 23 shows the health incidence results for the SCK variants. The results on the left of the graph for the BioBuild demonstrator unit show that there are more health incidents associated with BioBuild than with the benchmark. Similar to the results for the EWP, the transport contributes significantly to the results, due to a large share of transport over land. There is a large potential to decrease the transport over land and the associated health incidences, either by shifting to sea transport or by decreasing the transport distance by purchasing resources in or closer to Europe.

The fatal accidents associated with the BioBuild demonstration unit is almost twice as much higher than compared to the benchmark. If PFA resin is used instead of the biopolyester resin, the health risks of manufacturing are likely to decrease.

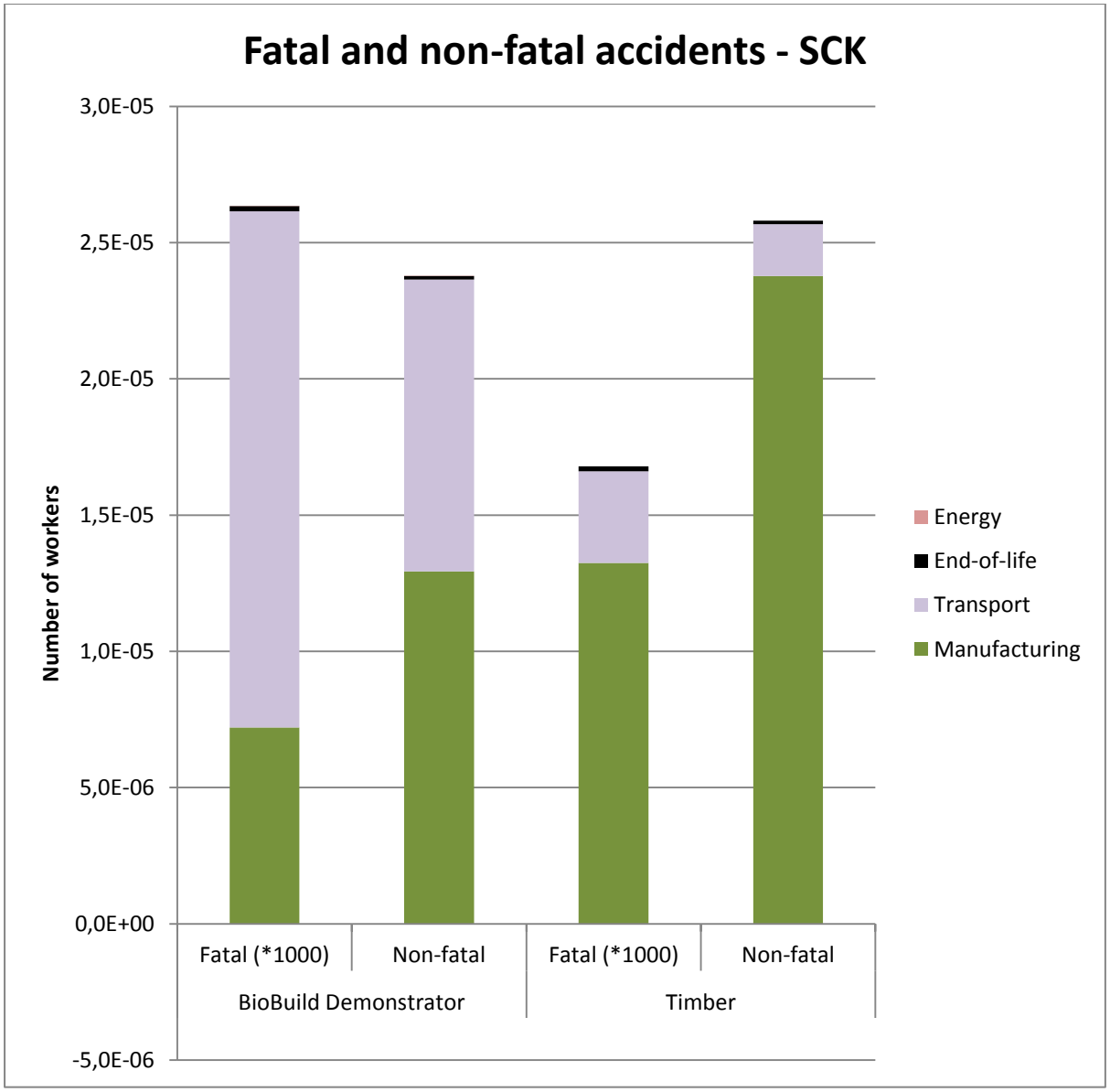


Figure 23 Health incidence results for the SCK variants.

4.5.5 Summary of SCK results

The BioBuild demonstrator unit has a higher score on both embodied energy and costs in comparison to the benchmark, but the optimized SCK shows that there is the potential for BioBuild get a closer score on energy compared to the timber benchmark against average costs. For the biobased impacts, the results are difficult to interpret because the method is yet too sensitive for small variations and the negative impacts of avoided products.

The health results depend on the choice of resin and associated transport over land. The BioBuild demonstrator unit is associated with about 2 times the number of fatal health incidents associated with the benchmark and with slightly lower amounts of non-fatal accidents. If the biopolyester resin is replaced by PFA resin (optimized design) the BioBuild product has the potential to have lower health results than as predicted in this graph.

5 Sensitivity analyses

5.1 Inventory of sensitivities

In the course of the project, many sensitivities have already been investigated and eliminated uncertainties from the assessment. First of all, the quick scanning process was realized in the form of a continuous check on the sensitivities and optimization of the results. The quick scans focussed on a new product or production component every few months, feeding the project consortium with comparisons on for example fibres, fibre architectures, fibre treatments, isolation materials and coatings. The results of the quick scans have been discussed intensively during the quarterly consortium meetings and are reported in Deliverable 8.3, which can be seen as a sensitivity analysis by itself on the component level.

The quick scans do not cover the variation in possible end-of-life scenarios. Material recycling of (bio)composites has not been taken into account because the project focus was on durability and not on product recyclability. In addition recycling would require market practices on separate end-of-life collection and material recycling of bio-materials, and both are not yet in place. Instead of material recycling, incineration with energy recovery was analysed. Energy recovery avoids production of conventional energy, thus creating an an environmental benefit in the life cycle assessment. A sensitivity analysis on the energy recovery data would reflect a comparison of efficient and less efficient energy recovery installations. The sensitivity assessment is rather straightforward exercise of varying the applied lower heating values (LHVs) or efficiencies, with the result that the more efficient waste incineration installations, the higher the energy recovery. Because of the predictability of the result, the recommendation is made to process end-of-life waste in highly efficient installations, as that is most environmental beneficial.

The sensitivity analysis inventories which assumptions or methodological choices influence the impact of the systems as a whole, and therefor may influence the ranking of the product systems. The two main remaining issues are the technological scope of the assessment and the life time expectations in the case studies.

The technological scope of this project was an industrial and fully developed production scale for all case variants, thus the same for the BioBuild designs as for the benchmarks. A sensitivity assessment on the lab scale results of the BioBuild designs could be performed, but this would not be of significant added value to the interpretation of the results. Most likely, using the pure lab results of the biocomposites would result in lower efficiencies, higher losses and thus higher embodied energy than the expected industrial situation. For that reason we did not include this sensitivity assessment. Moreover, the two BioBuild variants (Demonstrator and Optimized) already provide insight in the variation of potential impacts of the products.

The other systematic sensitivity which has not been assessed yet is the expected life time of the products. The life time has a large impact on the results, because it determines the cumulative amount of materials that is compared in the cases. If one product functions for a longer period of time than the other, the latter one needs to be replaced within the lifetime of the former, and a replacement leads to material and energy consumption. For the calculated results in the previous chapter, we presumed equal life times for all variants (for an explanation, see the scope chapter). In the sensitivity analysis which is described in the next paragraph, these life times will be varied.

5.2 Life time

5.2.1 Defining the sensitivity analyses

For the calculated results in the previous chapter, we presumed equal life times for all variants: 15 years for all variants in the “internal” cases (IPK & SCK) and 40 years in the external case studies (EWP & ECK). For this sensitivity analysis, both the best and worst

case scenarios were calculated, in order to show the range of the expected results. The scenarios were chosen based on expert judgment and are shown in Table 10 below.

Table 10 Overview of the scenarios calculated in the life time sensitivity analysis. The two BioBuild variants (demonstrator and optimized design) are not expected to have different life times; therefore, only 1 "BioBuild" variant is mentioned. The "base case" is the scenario that is applied for the results in the previous chapter.

Case	Variant	Life time scenario		
		Worst case	Base case	Best case
ECK	BioBuild	20	40	45
	Aluminium	30	40	50
	GRP	30	40	60
EWP	BioBuild	20	40	45
	Aluminium	30	40	50
	GRP	30	40	60
IPK	BioBuild	10	15	25
	Dorma	12	15	30
SCK	BioBuild	10	15	25
	Timber	12	15	75

This sensitivity analysis is performed over a period of 100 years, which enables comparison of products with different life times. The number of required replacements is calculated as fractions, thus for example for a product with a life time of 75 years, the material use over 100 years is counted as 1.33 times the amount of the product. This fraction represents the calculated average of replacements for large groups of buildings, as the calculation is not specific for one building with a known fixed lifetime.
The sensitivity analysis is performed on the embodied energy of the variants and not on the other impact categories, because embodied energy is the major focus of this project and because it is a transparent and comprehensible impact category.

5.2.2 Results

Figure 24 till Figure 27 show the results of the sensitivity assessment per case study. The ECK graph (Figure 24) reveals life time is a highly sensitive parameter for both the benchmarks and the BioBuild products. For these outdoor applications the lifetime of the product is considered to be more dependent of the technical lifetime than of the life time of the building. If the optimized BioBuild product has a (technical) lifetime of less than 20 years, it will lose the potential to have a lower embodied energy compared to the benchmarks, that already have proven in practice that longer lifetimes can be met in practice. In the case of a short technical lifetime for BioBuild (worst case scenario) the optimized BioBuild design is only favourable over aluminium from an embodied energy perspective if the cladding kit is applied on a building that will have a short (remaining) lifetime that equals the technical life time of the BioBuild ECK. The BioBuild demonstrator unit is likely to have a larger embodied energy compared to all alternatives, potentially twice as much if the technical life time equals 20 years.

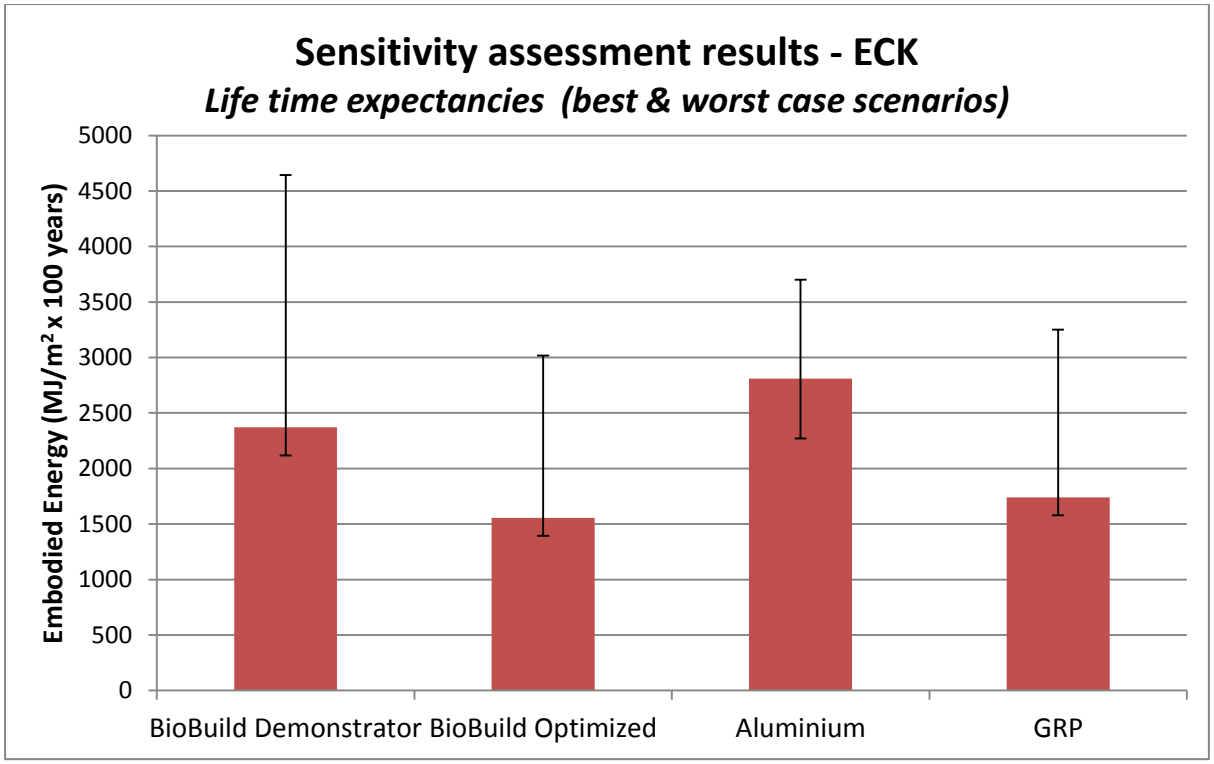


Figure 24 Results of the sensitivity assessment of the ECK variants. The embodied energy (non-renewable energy) is shown over a period of 100 years, with the best and worst case scenarios shown by means of the error bar. The scenarios are explained in Table 10.

The EWP, as shown in Figure 25, underlines the conclusions from the results chapter, namely that neither of the two BioBuild designs is likely to perform better on their embodied energy score than the benchmarks. Only in its most optimized design and with a best case life time expectancy, the BioBuild EWP could have a lower embodied energy than GRP and worst-case aluminium, but this is not foreseen as a realistic scenario.

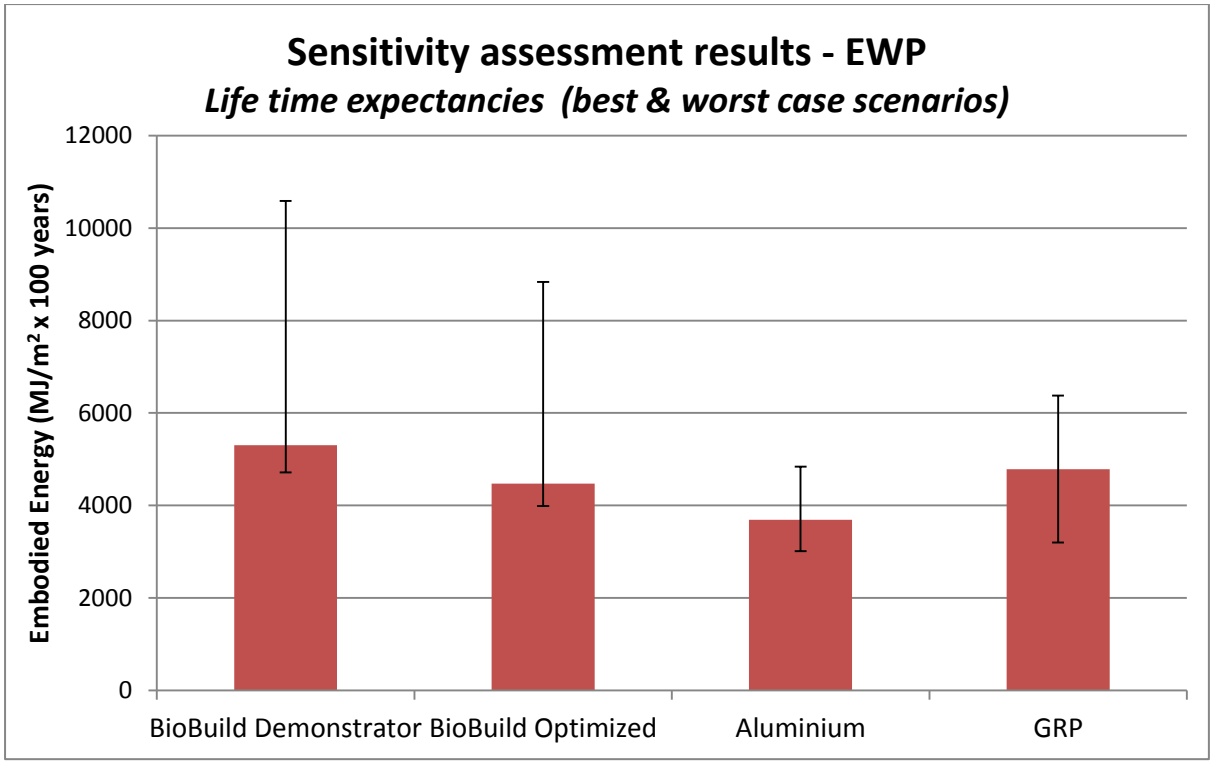


Figure 25 Results of the sensitivity assessment of the EWP variants. The embodied energy (non-renewable energy) is shown over a period of 100 years, with the best and worst case scenarios shown by means of the error bar. The scenarios are explained in Table 10.

The IPK graph (Figure 26) shows that life time expectation is obviously a relevant factor here. As IPK is an internal application, it is to be expected that variation in functional lifetime (related to the building use) is of more importance than variation in technical lifetime. Interior adaptations are applicable on both the BioBuild products and the Dorma benchmark, and therefore it can be concluded that variations in the lifetime do not influence the ranking of the results. The BioBuild demonstrator unit has most embodied energy, while the embodied energy for the benchmark and the BioBuild optimized design are in the same order of magnitude.

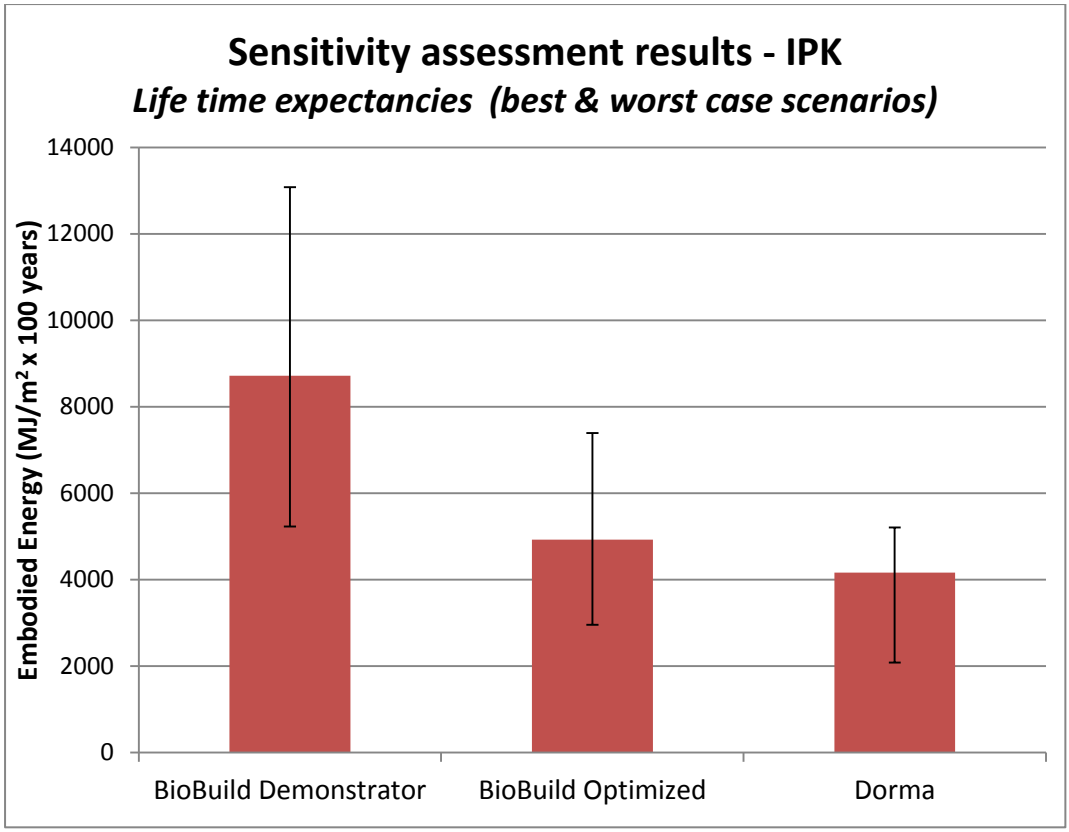


Figure 26 Results of the sensitivity assessment of the IPK variants. The embodied energy (non-renewable energy) is shown over a period of 100 years, with the best and worst case scenarios shown by means of the error bar. The scenarios are explained in Table 10.

The SCK graph (Figure 27) shows a picture similar to the IPK graph, which is expected as this is also an internal application where functional life time (building change) is considered to be of more importance than technical lifetime. The interpretation of the results is largely dependent on the expected lifetime of the variants. As lifetime will vary in the same direction for the three variants, the ranking of the results will not change.

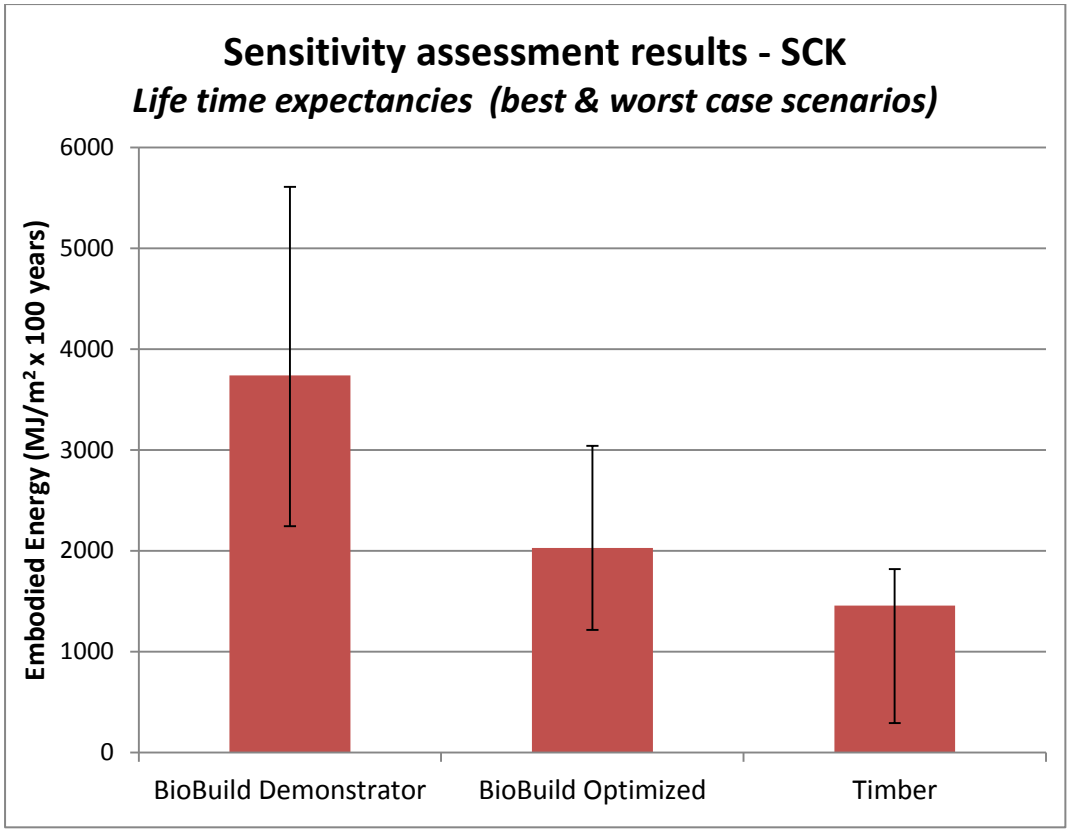


Figure 27 Results of the sensitivity assessment of the SCK variants. The embodied energy (non-renewable energy) is shown over a period of 100 years, with the best and worst case scenarios shown by means of the error bar. The scenarios are explained in Table 10.

6 Overall conclusion, discussion and recommendations

The goal of this final assessment was to provide evidence for the sustainability performance of the products developed in this project. The general approach of this assessment was to compare environmental impacts, costs, eco-efficiency and health impacts of the developed BioBuild products with the current standards for these products. This is done by executing a Life Cycle Assessment (LCA) for assessing the environmental impacts, a Total Cost of Ownership (TCO) analysis for calculating the costs and an eco-efficiency analysis for evaluating the balance between costs and embodied energy. Health aspects were researched in a separate study (see Deliverable 8.2), from which the results are updated in this assessment.

The BioBuild products are compared in four case studies: (1) external cladding kit, (2) external wall panel, (3) internal partition kit and (4) suspended ceiling kit. In each case study, two variants of the BioBuild product are used for the comparison: a demonstrator unit (currently fabricated for exposition at Ecobuild) and an optimized unit (where properties of the product are maximized in favour of low embodied energy and low costs as much as realistically possible).

6.1 Per case study

6.1.1 Case study 1: external cladding kit (ECK)

In the first case study, bio based external rain screen cladding was compared with two benchmarks: aluminium and GRP. The BioBuild demonstrator unit showed a slightly lower score on embodied energy and costs than the benchmarks, but the optimized ECK shows that there is the potential for BioBuild to score substantially lower than the benchmarks. Whether this potential can be met is highly sensitive for the technical lifetime of the BioBuild product.

6.1.2 Case study 2: external wall panel (EWP)

For the second case study, a comparison was made between the BioBuild external wall panel and two benchmark situations: an external wall panel with an aluminium skin and one with a composite skin. The embodied energy of the BioBuild demonstrator is higher than the benchmarks, while the embodied energy of the optimized design scores in between the two benchmarks. The optimized design can compete with the embodied energy of the GRP benchmark, however the results are highly sensitive for the technical lifetime of the BioBuild product. The EWP costs are differing only a few percent on the total, due to the large part of the costs which is the same in all variants. The differences in the costs for the external and internal skin are quite substantial; the BioBuild demonstrator unit does not differ much from the GRP variant, but the aluminium variant is significantly cheaper. Since the costs differ this little, the eco-efficiency graph only shows differentiation in energy results.

6.1.3 Case study 3: internal partition kit (IPK)

The third case study showed the comparison between the BioBuild internal partition kit and the Dorma benchmark internal partition kit. The BioBuild demonstrator unit has a higher score on embodied energy than the benchmark, but the costs are almost twice as low. The optimized design shows that the embodied energy could be reduced to the almost same level as the benchmark, while the costs remain twice as low as the benchmark.

6.1.4 Case study 4: suspended ceiling kit (SCK)

Finally, the fourth case study revealed the difference in embodied energy and costs for a timber lamella suspended ceiling kit (benchmark) and the BioBuild SCK. The BioBuild demonstrator unit has a higher score on both embodied energy and costs in comparison to the benchmark, but the optimized SCK shows that there is the potential for BioBuild get a closer score on energy compared to the timber benchmark against average costs. For the

biobased impacts, the results are difficult to interpret because the method is yet too sensitive for small variations and the negative impacts of avoided products.

The health incidences related to the life cycle of BioBuild and benchmark products are updated from the first study (D8.2) to this final assessment. The results depend largely on the resin choice, the precursors of the resin and the transport of materials over land. In most cases, the BioBuild variant scores equal or even lower than the benchmarks in at least one of the two accident categories. For both categories in the IPK, the score of BioBuild is significantly higher than the benchmark. However, using other materials as a precursor of the resin, might help decreasing these impacts. In the SCK case, fatal accidents are much higher for BioBuild than for the benchmark but this is mainly a result of transport distances. Changing markets, larger availability of biobased products and therefor shorter transport distances, could decrease this impact significantly. On total, BioBuild has the potential to have health incidences lower or in the same order of magnitude compared to the benchmarks. Exact claims about the health impacts can only be performed after further research during the continuation development of the BioBuild products.

6.2 Overall conclusion, discussion and recommendations

The project aimed to develop new building materials made from biobased composites with 50% reduction in embodied energy and no increase in costs. In this sense, this assessment showed that this was an ambitious goal that can only be achieved by:

- selecting product applications / markets with substantial improvement potential
- innovating with raw materials and products that have a potentially good embodied energy properties compared to the benchmarks
- having the time and resources to develop and optimise for these goals and the technical performance of the product; if necessary develop other product applications when technical requirements cannot be met of need alterations that endanger sustainability ambitions.

Overall, when comparing the demonstrator units with the optimized designs, the BioBuild products showed a large potential for improvement on embodied energy and related environmental impacts as a result of further development and optimisation. Although the demonstrator units were often more expensive or having a higher embodied energy than the benchmarks, the optimized design showed a significant reduction of embodied energy. This optimization can be achieved by selecting the fibres and resin that have the lowest embodied energy compared to the available alternatives. To reduce embodied energy, for example UD jute is preferred over flax woven fabric, PFA resin is preferred over biopolyester and wood wool over rock wool.

In two of the four cases (ECK and IPK) the eco-efficiency of the optimized design was scoring better than the benchmarks. The EWP and the SCK designs are in need of some improvement in order to become competitive with the benchmarks, but the analysis of the results indicated that there are opportunities for this. As the BioBuild products need further development, also to meet technical requirements such as durability and fire resistance, the optimization on life time and embodied energy can be included in this development process. Given the intermediate character of the results in the report, this assessment needs to be updated when the BioBuild products are further developed.

The BioBuild products are not expected to be competitive with *every* building product in the market, but this project shows that the potential of the BioBuild products in a specific market is promising. Further product development may also include the development of higher life times and of new applications that may have a higher potential to meet sustainability goals.

7 References

ADAS - Centre for Sustainable Crop Management. (2005). *UK Flax and Hemp production: the impact of changes in support measures on the competitiveness and future potential of UK fibre production and industrial use.* London: DEFRA - Department for Environment, Food and Rural Affairs.

Agethen, U. F.-J. (z.d.). Lebensdauer von Bauteilen, Zeitwerte. *Arbeitsblatt der BTE-Arbeitsgruppe*, 1-13.

Althaus, H.-J., Dinkel, F., Stettler, C., & Werner, F. (2007). *Life Cycle Inventories of Renewable Materials. Final report ecoinvent data v2.0 No.21.* Dübendorf: EMPA, Swiss Centre for Life Cycle Inventories.

Bengtsson, S. (2004). *The BASF Eco-Efficiency Analysis method- applied on environmental impact data from an LCA study of two colorants.*

Bioboost Project Consortium. (2012). *Sustainability Assessment Methodology Report Bioboost WP 6: Techno-economic, environmental and social assessment of bioenergy chains.* Brussels: European Commission.

British Standards. (2008). BS ISO 15686-5. *Buildings & constructed assets – Service life planning – Part 5: Life cycle costing*. British Standards.

CEN European Committee for Standardization. (2006). EN ISO 14044. *Environmental management - Life cycle assessment - Requirements and guidelines*. Brussels: CEN European Committee for Standardization.

CEN European Committee for Standardization. (2006). ISO 14040. *Environmental management - Life cycle assessment - Principles and framework*. Brussels: CEN European Committee for Standardization.

CEN European Committee for Standardization. (2006). ISO 14040 Environmental management - Life cycle assessment - Principles and framework. *European standard*.

CEN European Committee for Standardization. (2010). EN ISO 15978. *Sustainability of construction works - Assessment of environmental performance of buildings - Calculation method*. Brussels: CEN European Committee for Standardization.

CEN European Committee for Standardization. (2010, June). prEN 15978 Draft. *Sustainability of construction works - Assessment of environmental performance of buildings - Calculation method*.

CEN European Committee for Standardization. (2012, January). EN 15804. *Sustainability of construction works - Environmental product declarations - Product category rules*. Brussels: CEN European Committee for Standardization.

CEN European Committee of Standardization. (n.d.). EN 13501-1. *Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire test*. CEN European Committee of Standardization.

Centraal Bureau voor de Statistiek. (2013, 10 03). *Monitor Materiaalstromen (Tabel 3.2.2).* Den Haag/Heerlen: Centraal Bureau voor de Statistiek.

Cherett, N., Barrett, J., Clemett, A., Chadwick, M., & Chadwick, M. (2005). *Ecological Footprint and Water Analysis of Cotton, Hemp and Polyester.* Stockholm: Stockholm Environment Institute.

Costanza, R., Arge, R. d., Groot, R. d., Farber, S., Grasso, M., Hannon, B., et al. (1997). The value of the world's ecosystem service and natural capital. *Nature*, 253-260.

Cristaldi, G., Latteri, A., Recca, G., & Cicala, G. (2010). Composites Based on Natural Fibre Fabrics. In P. D. Dubrovski (ed.), *Woven Fabric Engineering* (p. 414). Rijeka: Sciyo.

Dissanayake, N. (2011, May). Life cycle assessment of flax fibres for the reinforcement of polymer matrix composites. *PhD Thesis*. Plymouth: University of Plymouth.

Duigou, A. L., Davies, P., & Baley, C. (2011). Environmental impact analysis of the production of flax fibres to be used as composite material reinforcement. *Journal of Biobased Materials and Bioenergy*, 1-13.

Ecoinvent v2.0. (2007). *Database*. Dübendorf: EMPA - Swiss Centre for Life Cycle Inventories.

European Commision - JRC - IES. (2012). *Characterisation Factors of the ILCD Recommended Life Cycle Impact Assessment methods.* Luxembourg: Publications Office of the European Union.

European Commission - JRC - IES. (2010). *Analysis of existing environmental impact assessment methodologies for use in life cycle assessment.* Ispra: European Union.

European Commission - JRC - IES. (2010). *International Reference Life Cycle Data System (ILCD) Handbook - General guide for Life Cycle Assessment - Detailed guidance.* Luxembourg: Publications Office of the European Union.

European Commission - JRC - IES. (2010). *International Reference Life Cycle Data System (ILCD) Handbook - General guide for Life Cycle Assessment - Provisions and Action Steps.* Luxembourg: Publications Office of the European Union.

European Commission. (2013). *WP 2013 fact sheets on strategic priorities - oceans of the future facts*. Retrieved 11 25, 2014, from FP7 - Research - Europa: http://ec.europa.eu/research/fp7/pdf/oceans_fact_sheet.pdf

European Commission. (n.d.). *European ports : an engine for growth*. Retrieved 11 25, 2014, from Transport - European Commission: http://ec.europa.eu/transport/_static/pdf/infographie-web_en.pdf

European Council. (1967, June 27). Dangerous Substances Directive. *Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances*.

European Council. (1999, May 31). Dangerous Preparations Directive. *DIRECTIVE 1999/45/EC OF THE EUR. PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous pr.*

European Council. (2008, December 16). CLP Regulation. *Regulation (EC) 1272/2008 of the Eur. Parliament & of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, & amending Regulation (EC) 1907/2006*.

Eurostat. (2011a). *National Accounts by 64 branches - aggregates at current prices [nama_nace64_c]; European Union (27).* Retrieved 10 03, 2014, from Eurostat - Data Explorer: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_nace64_c

Eurostat. (2011b). *Supply, transformation, consumption - all products - annual data [nrg_100a]; European Union (28).* Retrieved 10 03, 2014, from Eurostat - Data Explorer: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_100a&lang=en

Eurostat. (2012a). *Generation of waste [env_wasgen]; European Union (27).* Retrieved 10 03, 2014, from Eurostat - Data Explained: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=env_wasgen&lang=en

Eurostat. (2014). *Freight transport statistics.* Retrieved 10 03, 2014, from Statistics Explained: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Freight_transport_statistics

FAO. (n.d.). *Sisal*. Retrieved May 22, 2012, from FAO: http://www.fao.org/economic/futurefibres/fibres/sisal/en/

Goedkoop, M., Heijungs, R., Huijbregts, M., Schryver, A., Struijs, J., & Zelm, R. (2009). *ReCiPe 2008. A life cycle impact assessment method which comprise harmonised category indicators at the midpoint and the endpoint level, first edition. Report I: Characterisation.* Den Haag: Ministerie van VROM.

Groot, R. d., Brander, L., Ploeg, S. v., Costanza, R., Bernard, F., Braat, L., et al. (2012). Global estimates of the value of ecosystems and their services in monetary units. *Ecosystem Services*, 50-61.

Hämäläinen, P. L. (2009). Global trend according to estimated number of occupational accidents and fatal work-related diseases at region and country level. *Journal of Safety Research*, 125-139.

Hischier, R., Weidema, B., Althaus, H.-J., Bauer, C., Doka, G., Dones, R., et al. (2010). *Implementation of Life Cycle Impact Assessment Methods. Ecoinvent Report No. 3, v2.2.* Dübendorf: Swiss Centre for Life Cycle Inventories.

ILO. (2012). *Main statistics (annual) - Occupational injuries*. Retrieved April 24, 2012, from Laborsta: http://laborsta.ilo.org/applv8/data/c8e.html

ILO. (2012). *Occupational Injuries*. Retrieved April 23, 2012, from LABORSTA - an International Labour Office database on labour statistics operated by the ILO Department of Statistics.: http://laborsta.ilo.org/STP/guest

Joshi, S., Drzal, L., Mohanty, A., & Arora, S. (2004). Are natural fiber composites environmentally superior to glass fiber. *Composites: Part A*, 371-376.

Keijzer, E., Jongeneel, S., Horssen, A. v., Vos, S. d., Ligthart, T., & Harmelen, T. v. (2015 (submitted - not published)). Qualitative and quantitative impacts of land use: additional methods for the environmental assessment of biobased products. *International Journal of Life Cycle Assessment*.

Labouze, E., Guern, Y. l., & Petiot, C. (2007). *Analyse de cycle de vie comparée d'une chemise en lin et d'une chemise en cotton.* Ivry-sur-Seine: Bio Intelligence Service S.A.S.

Lewandowska, A., Noskowiak, A., Pajchrowski, G., & Zarebska, J. (2015). Between full LCA and energy certification methodology — a comparison of six methodological variants of buildings environmental assessment. *International Journal of Life Cycle Assessment*, 9-22.

Network Group for Composites in Construction (NGCC). (n.d.). Sustainable FRPs - naturally derived resins and fibres. *Technical Sheet 08*. Network Group for Composites in Construction (NGCC).

OSHA. (n.d.). *Global trend according to estimated number of occupational accidents and fatal work-related diseases at region and country level*. Retrieved April 24, 2012, from OSHA: http://osha.europa.eu/en/press/articles/global-trend-according-to-estimated-number-of-occupational-accidents-and-fatal-work-related-diseases-at-region-and-country-level/view

Otten, M., & Bergsma, G. (2010). *Beter één AVI met een hoog rendement dan één dichtbij. Hoeveel transport van afval is nuttig voor een hoger energierendement.* Delft: CE Delft.

PricewaterhouseCoopers. (2006). *Jute Ecolabel - Annexures to life cycle assessment study.* Kolkata: PricewaterhouseCoopers Pvt. Ltd.

Queensland Government Statistician's Office. (2014). *Data Tables: Agriculture*. Retrieved 11 11, 2014, from Queensland Government: http://www.qgso.qld.gov.au/products/tables/agriculture-production-main-crop-qld/index.php

Saling, P. (2007). Using the Eco-Efficiency Analysis and SEEBALANCE in the Sustainability Assessment of Products and Processes. Presentation at: Sustainable Neighbourhood - from Lisbon to Leipzig through Research, 4th BMBF-Forum for Sustainability. Leipzig.

Song, Y. S., Youn, J. R., & Gutowski, T. G. (2009). Life cycle energy analysis of fiber-reinforced composites. *Composites: Part A*, 1257-1265.

Turunen, L., & Werf, H. v. (2006). *Life cycle analysis of hemp textile yarn: comparison of three hemp fibre processing scenarios and a flax scenario.* Rennes: INRA - Institut National de la Recherche Agronomique.

UNEP/SETAC Life Cycle Initiative. (2009). *Guidelines for Social Life Cycle Assessment of Products Social and socio-economic LCA guidelines complementing environmental LCA and Life Cycle Costing, contributing to the full assessment of goods and services within the context of sustainable developmen.*

UNEP/SETAC Life Cycle Initiative. (2011). Methodological sheets. *Workers*.

Wikipedia. (n.d.). *Ramie*. Retrieved May 22, 2012, from Wikipedia: http://en.wikipedia.org/wiki/Ramie

8 Appendix A: Data tables

8.1 Individual materials & processes

8.1.1 Fibres - Flax

Table 11 Input and output for Flax straw.

Outputs to technosphere	Amount	Unit	Allocation	Remark
Flax, straw	6650	kg		all data for 1 ha of flax cultivation, conform Le Duigou Tabel AI (Duigou, Davies, & Baley, 2011). The original source is Labouze ((Labouze, Guern, & Petiot, 2007). 6650 kg retted fibres Added: - seed - water use - retting emissies - energy in bio - soil erosion - co2 uptake Retting takes place in the field: dew retting. No chemicals, three passes: one for pulling/windrowing, two for turning.
Inputs from nature	**Sub compartment**	**Amount**	**Unit**	**Remark**
Occupation, arable		1	ha a	
Water, rain		72.3*1000*0.81 = 5.86E4	l	per 100 kg yarn = 7.23 m3 water needed, meaning 72.3 kg/kg yarn (Turunen & vd Werf 2006, table 14). This is rain water (KUL). 1000 kg = amount of hackled flax per ha; --> after spinning another 19% loss and therefore multiplied by 81%
Soil		1*soil_loss_factor = 2.5	ton	Soil loss factor= 2.5 (average between 0 and 5) t/ha; Source: PESERA. Region: Belgium.
Energy, in BioBuild base materials	Land	18.75	MJ	HHV according to www.ecn.nl/phyllis2/Biomass/View/395
Carbon dioxide, in air	Biotic	1.65*(6650*0.75) = 8.23E3	kg	1.65 kg CO2 per kg of dry fibres according to Le Duigou 2011. Moisture content of retted fibres = +/- 25% (Mohanty et al - Natural Fibres, Biopolymers, and Biocomposites)
Inputs from technosphere	**Amount**	**Unit**		**Remark**
Ammonium nitrate, as N, at regional storehouse/RER U	53	kg		fertilizer; relative high value of Le Duigou, Dissanayake provides a lower value; average = (20 + 86) / 2 = 53
Emissions of ammonium nitrate in fertilizers	53	kg		
Triple superphosphate, as P2O5, at regional storehouse/RER U	83	kg		fertilizer; relative high value of Le Duigou, Dissanayake provides a lower value; average = (20 + 146) / 2 = 83
Emissions of triple superphosphate in fertilizers	83	kg		
Potassium chloride, as K2O, at regional storehouse/RER U	83.5	kg		fertilizer; relative high value of Le Duigou, Dissanayake provides a lower value; average = (50 + 117) / 2 = 83.5
Cyclic N-compounds, at regional storehouse/RER U	300+29.9 = 330	g		fungicide
Dithiocarbamate-compounds, at regional	72.5	g		proxy for thirame, because this is a dithiocarbamate.

storehouse/RER U				
Benzimidazole-compounds, at regional storehouse/RER U	8.05	g		proxy for prochoraze, because it belongs to the group of azoles.
Benzimidazole-compounds, at regional storehouse/RER U	150	g		fungicide
[thio]carbamate-compounds, at regional storehouse/RER U	144	g		herbicide
Linuron, at regional storehouse/RER U	90	g		herbicide
Benzo[thia]diazole-compounds, at regional storehouse/RER U	1584	g		herbicide
Pyretroid-compounds, at regional storehouse/RER U	15	g		insecticide
Tillage, ploughing/CH U	3	ha		
Tillage, rotary cultivator/CH U	1	ha		
Tillage, harrowing, by rotary harrow/CH U	1	ha		
Sowing/CH U	1	ha		
Fertilising, by broadcaster/CH U	3	ha		
Application of plant protection products, by field sprayer/CH U	5.5	ha		
Swath, by rotary windrower/CH U	1	ha		
Haying, by rotary tedder/CH U	2	ha		
Fodder loading, by self-loading trailer/CH U	1	m3		
Rape seed IP, at regional storehouse/CH U	115	kg		value of Labouze et al 2007; Dissanayake provides a lower value.
Emissions to air	**Sub compartment**	**Amount**	**Unit**	**Remark**
Methane, biogenic	low. pop.	0.0046217*1000 = 4.62	Kg	Assumption of Ecoinvent for jute: "about 0.1% of total CO_2 uptake"; total CO_2 uptake is however unknown. Therefore, the amount of CH_4 per kg jute fibres is noted here directly. From 1 ha --> 1000 kg hackled fibre.
Emissions to water	**Sub compartment**	**Amount**	**Unit**	**Remark**
COD, Chemical Oxygen Demand	river	0.05*6920 = 346	kg	Assumption of Ecoinvent for jute: "about 5% of total harvested jute"; total harvested flax = 6920 (see description of scutched flax).
BOD5, Biological Oxygen Demand	river	0.04*6920 = 277	kg	Assumption of Ecoinvent for jute: "about 4% of total harvested jute"; total harvested flax = 6920 (see description of scutched flax).
Soil loss by erosion into water		1*soil_loss_factor = 2.5	ton	
Emissions to soil	**Sub compartment**	**Amount**	**Unit**	**Remark**
Prochloraz	agri	300+29.9 = 330	g	Proxy for Cyclic-N-Compounds. The Ecoinvent report (no. 15) gives a number of comparable substances instead of Cyclic-N-compounds. Of

				these, only a few are characterized in Recipe. There is a pesticide which has average characterization factors and which has already been applied in BioBuild: Prochloraz. Therefore, this substance is taken as a proxy for Cyclic-N-compounds.
Thiram	agri	72.5	g	
Prochloraz	agri	8.05	g	
Bentazone	agri	150	g	Assumed for Benzimidazole-compounds, at regional storehouse/RER U
Carbofuran	agri	144	g	Assumed for [thio]carbamate-compounds
Linuron	agri	90	g	
Cypermethrin	agri	15	g	Assumed for pyretroid-compounds
Bentazone	agri	1584	g	Proxy for Benzo[thia]diazole-compounds. Ecoinvent [report no.15] mentions three substances, of which only Bentazone has been characterized. Therefore Bentazone is used as a proxy for Benzo[thia]diazole-compounds.

Table 12 Data input and output for Flax basic fibres (hackled).

Outputs to technosphere	**Amount**	**Unit**	**Allocation**	**Remark**
Flax, scutched fibres	1550	Kg	84.4%	conform Le Duigou Tabel V
Flax, scutched tows	850	Kg	9.1%	
Flax, shives	2960	Kg	3.6%	
Flax, seeds	365	Kg	2.4%	
Flax, flakes	530	Kg	0.5%	
Flax, waste	665	Kg	0%	
Inputs from technosphere	**Amount**	**Unit**		Remark
Scutching	0.116*6920 = 803	kWh		Adaptation of chopping, maize/ha/CH; instead of ha, this record is modelled in energy content. For 1 ha maize chopping is 52 kg diesel used (and appurtenant emissions produced) and that delivers 2.91 MJ energy, thus modelled as 2.91E3 MJ. All other materials and processes except diesel and the emissinos (e.g. the tractor) are removed from this record, because we only need the machine's impact and this has nothing to do with maize. Scutching = 0.116 kwh/kg retted flax ((Labouze, Guern, & Petiot, 2007), p40); sum of all masses above = 6920
Flax, straw	6650	Kg		6650 kg retted fibres/ha (see record)

Table 13 Data input and output for Flax basic fibres (hackled).

Outputs to technosphere	**Amount**	**Unit**	**Allocation**	**Remark**
Flax, basic fibres (hackled)	1000	Kg	81.1%	conform Le Duigou Tabel V
Flax, hackled tows	465	Kg	18.9%	
Flax, dust waste	85	Kg	0%	
Inputs from technosphere	**Amount**	**Unit**		Remark
Hackling	0.55*1550 = 853	kWh		Adaptation of chopping, maize/ha/CH; instead of ha, this record is modelled in energy content. For 1 ha maize chopping is 52 kg diesel used (and appurtenant emissions produced) and that delivers 2.91 MJ energy, thus modelled as 2.91E3 MJ. All other materials and processes except diesel and the emissions (e.g. the tractor) are removed from this record, because we only need the machine's impact and this has nothing to do

			with maize. Hackling = 0.55 kwh/kg scutched flax (Labouze, Guern, & Petiot, 2007).
Flax, scutched fibres	1550	Kg	

8.1.2 Fibres - Jute

Table 14 Data input and output for Jute straw.

Outputs to technosphere	Amount	Unit	Remark
Jute, straw	1	Kg	
Inputs from technosphere	**Amount**	**Unit**	**Remark**
Jute, straw, irrigated	0.5	Kg	Ecoinvent's "jute fibres, irrigated system, at farm/kg/IN", added with input from nature: "Soil": 1.9791*0.1 = 0.198 kg (0.1 = soil loss factor; source: Sharda, Mandal en Ojasvi, 2012); And "Energy, gross caloric value, in biomass" is set at 0.
Jute, straw, rainfed	0.5	Kg	Same as irrigated straw, but then with Ecoinvent's "Jute fibres, rainfed system, at farm/IN"
Transport, transoceanic freight ship/OCE U	5000	Kgkm	Mumbay - Istanbul via Suezkanaal is 3800. BioBuild's jute come via UK (Hull, 6400 km) to the continent, but maybe that is an overestimation in case of future (average) biocomposite production. 5000 km is about average.

Table 15 Data input and output for Jute basic fibres (stripped).

Outputs to technosphere	Amount	Unit	Remark
Jute, basic fibres (stripped)	1820	Kg	http://www.worldjute.com/about_jute/abj_cultivation.html after retting & before spinning: - stripping --> hand work, thus 0 energy - washing --> with fresh water - squeezing --> hand work assumed - drying --> sun drying, thus 0 energy use - bailing --> no energy or whatsoever
Inputs from technosphere	**Amount**	**Unit**	**Remark**
Jute straw	10000/5.5 = 1.82E3	kg	Ecoinvent report no 21: 5.5 m^2/kg fibre --> ~1800 kg fibre/ha·a.
Tap water, at user/RER U	1820*3= 5.46E3	Kg	assumption: 3 L/kg based on vd Vreede & Sevenster 2010 ("Milieuanalyses textiel", CE Delft).

8.1.3 Preforms

Table 16 Data input and output for Flax yarns.

Outputs to technosphere	Amount	Unit	Remark
Flax, yarns	1	Kg	
Inputs from technosphere	**Amount**	**Unit**	**Remark**
Flax, basic fibres (hackled)	1*1.04*1.11* 1.05 = 1.21	kg	Mass losses derived from Labouze; for 1 kg flax (p43 and further): 5% in the preparation, 11% in bleaching, 4% in wet spinning. Assumption: losses are worthless and do not need to be modelled nor allocated.
Yarn production, bast fibres/kg/IN	1	Kg	

Table 17 Data input and output for Flax woven fabric.

Outputs to technosphere	Amount	Unit	Allocation	Remark

Flax, woven fabric	0.96	Kg	98 %	General approach: information from Labouze, PWC and Ecoinvent is combined, because all differ substantially. Labouze is followed as far as possible because this is the most complete and detailed source; Labouze is completed by the other two. Amounts: Labouze mentions that from 1 kg yarns, only 0.96 kg woven fabric remains; of the remaining 0.04 kg, no information is given. PWC gives this information: they say the remains value 1.5 euro/kg while the fabric values 3 E/kg. Ecoinvent does not provide information on this.
Flax, reuseables from weaving	0.04	Kg	2%	
Inputs from technosphere	**Amount**	**Unit**		**Remark**
Potato starch, at plant/DE U	175	g		
Flax, yarns	1	kg		
Electricity, low voltage, production RER, at grid/RER U	0.744*0.96 = 0.714	kWh		Ecoinvent's bast fibre weaving is most representative, when comparing it with other available sources ((Labouze, Guern, & Petiot, 2007); (PricewaterhouseCoopers, 2006)).
Emissions to air	**Subcompartment**	**Amount**	**Unit**	**Remark**
Heat, waste		18.75	MJ	

Table 18 Data input and output for Jute yarns.

Outputs to technosphere	**Amount**	**Unit**	**Allocation**	**Remark**
Jute, yarns	681	Kg	82%	Losses ((PricewaterhouseCoopers, 2006), p65-68): In 1000 kg raw jute 16% moisture Out 681.39 kg jute yarn Out 292.00 kg jute reusables Out 24.12 kg jute caddies and dust Mass balance not exact because of slight differences in moisture content in the outputs.
Jute, reuseables from spinning	292	Kg	18%	Allocation: due to lack of information, the economic values of hackled flax are used as a starting point: 3 euro/kg for fibres and 1.5 euro/kg for tows (assuming tow ~ reusables) and 0 euro/kg for dust.
Jute, dust waste from spinning	24	Kg	0%	
Inputs from technosphere	**Amount**	**Unit**		**Remark**
Jute, basic fibres (stripped)	1000	kg		
Yarn production, bast fibres/kg/IN	681	Kg		

Table 19 Data input and output for Jute woven fabric.

Outputs to technosphere	**Amount**	**Unit**	**Allocation**	**Remark**
Jute, woven fabric	0.96	Kg	98%	General approach: same as for flax
Jute, reuseables from weaving	0.04	Kg	2%	
Inputs from technosphere	**Amount**	**Unit**		**Remark**

Potato starch, at plant/DE U	175	g		
Jute, yarns	1	kg		
Electricity, low voltage, production RER, at grid/RER U	0.744*0.96 = 0.714	kWh		figure for weaving of bast fibres
Emissions to air	**Subcompartment**	**Amount**	**Unit**	**Remark**
Heat, waste		18.75	MJ	

Table 20 Data input and output for Jute UD fabric. By lack of more data, this record was also applied as a proxy for jute felt.

Outputs to technosphere	**Amount**	**Unit**	**Remark**
Jute, UD fabric	1	Kg	To produce UD fabric, the basic fibres get only a few stitches; therefore it is assumed that the amount of materials and energy is negligible.
Inputs from technosphere	**Amount**	**Unit**	**Remark**
Jute, basic fibres (stripped)	1	Kg	

8.1.4 Fibre treatment

Several types of fibre treatment procedures have been analysed during the BioBuild project, amongst others treatments with Waterglass, Phenalkamines, Potassium Hydroxide, Acetlyation and Carboxylation. For this final assessment an average process has been modelled, based on these individual treatment techniques. Since the specific treatment techniques are confidential, they are not further specified here.

8.1.5 Resins

The formulation of the resins is confidential.

8.1.6 Core and insulation materials

For rock wool the Ecoinvent record “Rock wool, packed, at plant/kg/CH” is used.
The data of wood wool are based on an EPD of Knauf and is shown in Table 21.

Table 21 Data input and output for wood wool.

Outputs to technosphere	**Amount**	**Unit**	**Remark**
Wood wool	1	Kg	
Inputs from technosphere	**Amount**	**Unit**	**Remark**
Wood wool, u=20%, at plant/RER U	0.45	Kg	Data from epd of Knauf 35
Magnesium oxide, at plant/RER U	0.50	Kg	
Magnesium sulphate, at plant/RER U	0.05	Kg	
Tap water, at user/RER U	0.35	Kg	
Electricity, low voltage, production UCTE, at grid/UCTE U	0.196	kWh	EPD Knauf table 8-2: 30.52 MJ non-renewable energy per m2, for production process only. With 13 kg/m2 for the 25 mm standard panel, that would yield 2.35 MJ primary per kg. that's about 0.2 kWh secondary.

8.1.7 Processing techniques

The different processing techniques were extensively analysed for the quick scans. In the quick scan report, the material and energy analysis is extensively described. The basic requirements of most techniques are consumables and energy. Energy consumption in the process is taken into account for all processing techniques, for example for heating, cooling and mechanical activities. However, energy use for storage is not included.

The consumables consist of resin, fibre, moulds, sometimes a core material and some other small materials. As resins, fibres and core materials are already included in other parts of the quickscan, these are not discussed here again. The focus is on the spills, which differ per processing technique, and which have an influence on the results.
The other consumables are included if it is known from literature that they have a large impact on the total (e.g. from the Green Guide to Composites) or if they contribute significantly to the mass balance. The ILCD sets the cut-off threshold at 1% for both mass and energy; however we use a threshold that is even stricter, namely 0.1% of the mass balance, because many assumptions and generalized data are used.

Table 22 Input data for the processing techniques. The background information is described in the quickscan report (D8.3).

Processing technique	Main inputs (per kg of composite)	Losses in process
(Vacuum) Infusion	15 g bags (production & disposal) Tack tape[5] Release film[6] Cleaning with water & soap[7] 0.0179 kWh electricity[8] (for vacuum) 0.506 kWh electricity[8] (for post curing)	10% resin, 2.5% fibres
Vacuum bagging	15 g bags (production & disposal) Tack tape[5] Release film[6] Cleaning with water & soap[7] 0.0179 kWh electricity[8] (for vacuum) 3.04 kWh electricity[8] (for post curing)	5% resin, 2.5% fibres
Hand lay-up	Tack tape[5] Release film[6] Cleaning with water & soap[7] 0 MJ energy (hand work!)	2% resin, 1% fibres
Semi- continuous compression moulding	0.52 kWh electricity[8] 0.05 kg metal release sheets[9] 0.010 kg release agent[10] Cleaning with water & soap[7]	6% resin 6% fibres
(continuous) Compression moulding	1.61 kWh electricity[8] 0.002 kg release agent[10] Cleaning with water & soap[7]	5% resin 5% fibres
Prepreg production	0.0548 kWh electricity[8] 4.16 MJ heat from gas[11] Cleaning with water & soap[7]	2% resin, 2% fibres

8.1.8 Coatings

Since there was no paint producer in the project consortium, there was no specific information about the different types of coatings.

[5] Tack tape for 1 kg of composite: 10.1 g Packaging film, LDPE, at plant/RER U + 0.53 g Adhesive for metals, at plant/DE U.
[6] Release film for 1 kg composite = 31 g paper; supposed 90% Kraft paper, unbleached, at plant/RER U and 10% Silicon carbide, at plant/RER U as proxy for silicon coating (Silicon carbide is used for sandpaper; we think it represents well this silicon coating).
[7] Soapy cleaning for 1 kg composite = 0.00532 kg Tap water, at user/RER U + 0.00028 kg Soap, at plant/RER U.
[8] Electricity = Electricity, low voltage, production RER, at grid/RER U.
[9] Release sheets for 1 kg composite = 0.053 kg stainless steel plate, which is 63% Steel, converter, chromium steel 18/8, at plant/RER U + 37% Steel, electric, chromium steel 18/8, at plant/RER U + 100% Hot rolling, steel/RER U.
[10] Release agent = Solvents, organic, unspecified, at plant/GLO U.
[11] Heat from gas = Heat, natural gas, at industrial furnace >100kW/RER U

Table 23 Input data for the coatings.

Coating type (comparable to an existing coating)	Based on Ecoinvent record	Adaptations made	Additions to the record
Transparent, in solvent, no additives (2K PU Polyflex)	acrylic varnish, 87.5% in H2O, at plant/kg/RER	Water replaced by white spirit (because that is the solvent in other coatings, e.g. alkyd resin); The pigment, titanium dioxide, is set at 0 and instead the binder amount is increased to close the mass balance.	No additions
Transparent, water based, fire retardant (ES/VFR)	acrylic varnish, 87.5% in H2O, at plant/kg/RER	The pigment, titanium dioxide, removed. No changes madde to the other ingredients; total mass is thus lower	5% Flame retardant, phosphate[12]
Transparent, water based, intumescent (HW02/E)	Acrylic varnish, transparant, in H2O	The pigment, titanium dioxide, removed. No changes madde to the other ingredients; total mass is thus lower	Based on MSDS information: 1.5% Dipropylene glycol monomethyl ether, at plant/RER; 1.5% Benzyl alcohol, at plant/RER; 5% Expandable graphite[13]
White, water based, fire retardant (ES/VFR)	Acrylic varnish, 87.5% in H2O, at plant/RER U	No adaptations	5% Flame retardant, phosphate[12]
White, water based, no additives (2K PU Zweihorn)	90% Acrylic varnish, 87.5% in H2O, at plant/RER U ("Variocryl Color")		10% PUR water varnish, modelled following MSDS information[14].
White, water based, intumescent (HW01/F)	Acrylic varnish, 87.5% in H2O, at plant/RER U		Based on MSDS: 1% Ethylene glycol, at plant/RER U, 5% Expandable graphite[13]
Gelcoat (1 kg)	75 % polyester resin, unsaturated, at plant/kg/RER	For 1 kg gelcoat: 0.000111 kg of emissions of "Hydrocarbons, aromatic" to air[15]	BioBuild's estimation: 20% Filler: calcium carbonate[16]; 3% Pigment: Titanium dioxide, production mix, at plant/RER; 2% Catalyst: peroxide[17]

8.1.9 Cleaning

The cleaning per square metre was estimated by the partners. The used amounts are shown in Table 24.

Table 24 Input data for the cleaning process.

Outputs to technosphere	Amount	Unit	Remark
Maintenance Water & Soap	10	m^2	Handcraft; no energy requirements assumed.
Inputs from technosphere	**Amount**	**Unit**	**Remark**
Soap, at plant/RER U	50	gram	Average amount of soap in the cleaning liquid.

[12] Record created from 62% Monoammonium phosphate, as P2O5, at regional storehouse/RER and 38% Monoammonium phosphate, as N, at regional storehouse/RER.
[13] Expandable graphite = graphite treated with sulphuric acid and chromium acid. (http://en.wikipedia.org/wiki/Graphite#Expanded_graphite). For 1 kg of expandable graphite, we presumed 1 kg Graphite, at plant/RER input plus 5% Sulphuric acid, liquid, at plant/RER U and 1% Chromium oxide, flakes, at plant/RER U (by lack of chromium acid).
[14] Modeled as: 60% Toluene diisocyanate, at plant/RER U, 20% Ethyl acetate, at plant/RER U, 10% Methanol, at plant/GLO U, 1% Dimethylamine, at plant/RER U, 1% Cyclohexanol, at plant/RER U, 8% Chemicals organic, at plant/GLO U and all the "paint production processes" taken from alkyd paint, white, 60% in H2O, at plant/kg/RER.
[15] Following the emissions of polyester resin in "Glass fibre reinforced plastic, polyester resin, hand lay-up, at plant/RER U".
[16] By lack of record of "calcium carbonate", we used "Limestone, milled, packed, at plant/CH U".
[17] We corrected for dilution. 1 kg peroxide = 2kg Hydrogen peroxide, 50% in H2O, at plant/RER U.

Tap water, at user/RER U	1	Kg	Assumed that with 1 litre (1 kg) of water, about 10 m^2 surface can be cleaned.

8.1.10 End-of-life processes

For all most end-of-life processes, standard Ecoinvent processes for waste incineration are used, with adaptations for energy recovery. These are shown in Table 25.

Table 25 Applied Ecoinvent records and avoided output (electricity & heat) for the incineration of different materials. Overall electric efficiency is already included in these values. Electric efficiency = 20%, heat efficiency = 7.7% (Weighed average of all MSWIs of the Netherlands (Otten & Bergsma, 2010)).

Material	Ecoinvent record	Avoided electricity[18] (MJ/kg incinerated)	Avoided heat[19] (MJ/kg incinerated)
Flax	disposal, wood untreated, 20% water, to municipal incineration/kg/CH	3.18	1.22
Jute	disposal, wood untreated, 20% water, to municipal incineration/kg/CH	3.38	1.30
Cork	disposal, wood untreated, 20% water, to municipal incineration/kg/CH	3.20	1.23
Bioresin	disposal, polyethylene terephtalate, 0.2% water, to municipal incineration/kg/CH	5.02	1.93
Aluminium	Disposal, aluminium, 0% water, to municipal incineration/CH	0	0
Rock wool	disposal, mineral wool, 0% water, to inert material landfill/kg/CH	n/a	n/a
Wood wool	Disposal, wood untreated, 20% water, to municipal incineration/CH[20]	45% x 2.80	45% x 1.08
GFRP	42.1% Disposal, polyethylene terephtalate, 0.2% water, to municipal incineration/CH 63.2% Disposal, glass, 0% water, to municipal incineration/CH	42.1% x 4.59 63.2% x 0.0092	42.1% x 1.77 63.2% x 0.00354
LDPE	Disposal, polyethylene, 0.4% water, to municipal incineration/CH	8.49	3.27
Softwood[21]	Disposal, wood untreated, 20% water, to municipal incineration/CH	2.80	1.08
PUR	Disposal, polyurethane, 0.2% water, to municipal incineration/CH	6.13	2.36
MDF	Disposal, wood untreated, 20% water, to municipal incineration/CH	2.80	1.08
Steel	disposal, steel, 0% water, to municipal incineration/kg/CH	0	0
Coatings (water based) and adhesives	Disposal, emulsion paint, 0% water, to municipal incineration/CH	2.10	0.80
Coatings (solvent based)	Disposal, paint, 0% water, to municipal incineration/NL U	2.03	0.78

For some materials, the most applied option is recycling instead of incineration. The recycling was modelled as requiring a certain amount of avoided products (which do not have to be mined as primary materials, because they are avoided due to the recycling) and one or more other processes (for example the collection and treatment of the recycled materials). The applied records are shown in Table 26.

[18] Electricity, high voltage, production RER, at grid/RER
[19] Heat, natural gas, at industrial furnace low-NOx >100kW/RER U
[20] 45% wood wool content in sheets, thus 0.45 kg MSWI-process for 1 kg of material.
[21] Presumed 1 m^3 = 500 kg.

Table 26 Avoided output and required input of recycling of materials.

Material	Avoided material	Input material(s)
Stainless steel	0.567% Steel, converter, chromium steel 18/8, at plant/RER U (90% efficiency x 63%)	63% Steel, electric, chromium steel 18/8, at plant/RER U ("secondary steel") 37% Iron scrap, at plant/RER U
Aluminium	97% Aluminium, production mix, at plant/RER U	100% Aluminium, secondary, from old scrap, at plant/RER U
Glass[22]	All primary material in 1 kg white glass, divided by 1.08 (1 kg glass cullets = 1.08 kg of waste)	Glass cullets, sorted, at sorting plant/RER U

8.2 Case studies

8.2.1 Overview of materials and processes

Table 27 Materials and processes applied for the BioBuild Demonstrators. "PP" = prepreg.

Case	Fibre	Preform (untreated)	Resin	Fibre/resin mass ratio	Core/ Insulation	Process	Coating	Cleaning	Adhesives
ECK	Flax	Woven fabric	PFA resin	45 f / 55 r	none	SCCM +PP	solvent-based top, no perfect sub layer found yet. Best option is HW01/2	Annually with water & soap	UHU Endfest
IPK	Jute	Woven fabric	PFA resin	30 f / 70* r	Rock wool	Vacuum bagging + PP	Same as ECK, but can be water based	No cleaning because internal	SIKAFAST assumed*
EWP	Flax	Woven fabric	BioPE	30 f / 70 r	Rock wool	Hand Lay-Up	Gel coat 120-180 µm	Annually with water & soap	Macrolon UK 8326 B 30
SCK	Jute	Woven fabric	BioPE	40 f / 60 r	none	Vacuum infusion	Same as ECK, but can be water based	No cleaning because internal	no glue

*At the moment of writing, the to be applied adhesive in the IPK case was yet undecided. Therefore, in the assessments SIKAFAST was used as a proxy, because it is a very general and widely applicable adhesive product.

Table 28 Materials and processes applied for the BioBuild optimized designs. Optimized designs are developed based on the knowledge gained by the quick scans (see Deliverable 8.3) and technical advices by the consortium partners. Changes compared to the demonstrator units (Table 27) are marked red; no changes are made with respect to cleaning and adhesives[23]*.*

Case	Fibre	Preform (average treatment)	Resin	Fibre/resin mass ratio	Process	Coating
ECK	Jute	50% UD, 50% non-woven felt	PFA resin	45 f / 55 r	SCCM +PP	Transparent, 2x solvent based
IPK	Jute	100% UD	PFA resin	40 f / 60* r	Compression moulding + PP	Transparent, 2x water based
EWP	Jute	100% UD	BioPE	40 f / 60* r	Hand Lay-Up	Gel coat 120-180 µm external skin + White paint internal skin

[22] This record is empty in Ecoinvent due to cut-off procedures, but is filled with for BioBuild's purposes.

[23] Just before submission, IVW discovered that the ECK could also be produced without adhesives. This is not included in the calculations, but shortly discussed in paragraph 4.2.1.

SCK	Jute	50% UD, 50% non-woven felt	PFA resin	40 f / 60* r	Compression moulding + PP	Transparent, 2x water based

8.2.2 Case study 1: External cladding kit

Table 29 to Table 31 describe the materials and amounts of the ECK designs for respectively the BioBuild demonstrator unit and the aluminium and GFRP references.

Table 29 Design data of the ECK BioBuild demonstrator unit.

Main	Sub	Material	Amount	Unit	Remarks
Production of panel	Fibres	Flax, woven fabric	5.03	kg	including losses (3% in SCCM and 2% in prepreg)
	Resin	PFA resin	5.09	kg	including additives and losses (3% in SCCM and 2% in prepreg)
	Production	Production by SCCM	1.00	m2	9.64 kg
	Production	Production of prepregs	1.00	m2	9.64 kg
Coating	Coating	Coatings	0.64	kg	
Production of other components	Substructure	Aluminium, extruded profile	1.14	kg	
	Brackets	Aluminium, extruded profile	0.28	kg	
	Insulation	Rock wool, packed, at plant/kg/CH	6.44	kg	
	Fixings	Aluminium, products	0.04	kg	
	Adhesives	2K epoxy UHU Endfest proxy	0.20	kg	
Maintenance	Cleaning	Cleaning (soapy)	40	m2	Every year, thus 40x 1m2
	Repaint	Coatings	0.61	kg	Repaint every 8 years
End-of-life	Disposal	Incineration of biocomposite			
		Incineration of coating & adhesives			supposed that all coatings are burnt off the cladding before EoL of the cladding itself
		Incineration of rockwool,			
		Incineration of aluminium substructure			
		Recycling of brackets & fixings			

Table 30 Design data of the ECK aluminium reference.

Main	Sub	Material	Amount	Unit	Remarks
Production of panel	Cladding	Aluminium, plate	3.51	kg	
	Core	LDPE + Calendering, rigid sheets/RER	5.80	kg	
	Coating	Paint, transparent	0.21	kg	
Production of other components	Vertical railing	Aluminium, extruded profile	1.89	kg	
	Brackets	Aluminium, extruded profile	0.78	kg	
	Insulation	Rock wool, packed, at plant/kg/CH	6.44	kg	Same in all variants

	Fixings	Aluminium, products	0.04	kg	Same in all variants
	Adhesives	2K epoxy UHU Endfest proxy	0.20	kg	Same in all variants
Maintenance	Cleaning	Cleaning (soapy)	40	m2	Every year, thus 40x 1m2
	Repaint	Coatings	0.85	kg	Repaint every 8 years
End-of-life	Disposal	Incineration of aluminium and LDPE cladding materials			The aluminium cannot be recycled because it is combined with the LDPE
		Incineration of coating & adhesives			supposed that all coatings are burnt off the cladding before EoL of the cladding itself
		Incineration of aluminium railing			
		Recycling of brackets			

Table 31 Design data of the ECK GRP reference.

Main	Sub	Material	*Amount*	*Unit*	*Remarks*
Production of panel	Cladding	GFRP, polyester & hand-lay up	7.00	kg	
	Coating	Polyester powder coat	0.14	kg	
Production of other components	Vertical railing	GFRP, polyester & hand-lay up	1.20	kg	
	Brackets	Aluminium, extruded profile	0.28	kg	
	Insulation	Rock wool, packed, at plant/kg/CH	6.44	kg	Same in all variants
	Fixings	Aluminium, products	0.04	kg	Same in all variants
	Adhesives	2K epoxy UHU Endfest proxy	0.20	kg	Same in all variants
Maintenance	Cleaning	Cleaning (soapy)	40	m2	Every year, thus 40x 1m2
	Repaint	Coatings	0.57	kg	Repaint every 8 years
End-of-life	Disposal	Incineration of GFRP			
		Incineration of coating & adhesives			supposed that all coatings are burnt off the cladding before EoL of the cladding itself
		Recycling of aluminium brackets & fixings			

8.2.3 Case study 2: External wall panel

Table 32 Design data of the EWP BioBuild demonstrator unit.

Main	Sub	Material	*Amount*	*Unit*	*Remarks*
Production of skin	Fibres	Flax, woven fabric	4.45	kg	including losses (1% in hand lay-up)
	Resin	Biopolyester resin	8.68	kg	including additives and losses (2% hand lay-up)

	Production	Production by hand lay-up	1	m2	12.9 kg
	Coating	Gelcoat	0.29	kg	
Production of internal layer	Fibres	Flax, woven fabric	2.24	kg	including losses (1% in hand lay-up)
	Resin	Biopolyester resin	4.38	kg	including additives and losses (2% hand lay-up)
	Production	Production by hand lay-up	1	m2	6.59 kg
	Coating	Gelcoat	0.19	kg	
Production of other components	Transparent window glass.	Glass	7.71	kg	
	Frame for the window glass.	Aluminium, extruded profile	8.32	kg	
	Interfaces for panel to panel	Aluminium, extruded profile	1.70	kg	
	Gaskets	EPDM rubber	0.69	kg	
	Wooden frame to increase the stiffness of the panel	Softwood, window frame, untreated	55.70	kg	
	Boards	Plywood	9.20	kg	
	Thermal insulation of the panel	Rockwool	12.50	Kg	
	Supports	Aluminium, product	0.82	Kg	
	Adhesives	Macroplast	0.77	kg	7.06 kg per panel (of ~9.2 m^2)
Maintenance	Cleaning	Water & soap	80	m2	Every year, both skin and internal, thus 40x 1m2 x 2
End-of-life	Disposal	Incineration of biocomposite, wooden frame, boards, rockwool and rubber gaskets			
		Incineration of coating & adhesives			supposed that all coatings are burnt off the cladding before EoL of the cladding itself
		Recycling of aluminium window frame, interface and supports			
		Recycling of glass			

Table 33 Design data of the EWP aluminium reference.

Main	Sub	Material	*Amount*	*Unit*	*Remarks*
Production of skin	Aluminium	Aluminium, plate	5.47	kg	
	Coating	Coatings	0.21	kg	Same as ECK assumed
Production of internal layer	Aluminium	Aluminium, plate	4.60	kg	
	Coating	Coatings	0.21	kg	Same as ECK assumed
Production of other components	Transparent window glass.	Glass	7.71	kg	
	Frame for the window glass.	Aluminium, extruded profile	8.32	kg	
	Interfaces for panel to panel	Aluminium, extruded profile	1.70	kg	

	Gaskets	EPDM rubber	0.69	kg	
	Wooden frame to increase the stiffness of the panel	Softwood, window frame, untreated	55.70	kg	
	Boards	Plywood	9.20	kg	
	Thermal insulation of the panel	Rockwool	12.50	Kg	
	Supports	Aluminium, product	0.82	Kg	
	Adhesives	Macroplast	0.77	kg	7.06 kg per panel (of ~9.2 m^2)
Maintenance	Cleaning	Water & soap	80	m2	Every year, both skin and internal, thus 40x 1m2 x 2
	Repaint	Coatings	1.70	kg	Same as ECK assumed
End-of-life	Disposal	Incineration of wooden frame, boards, rockwool and rubber gaskets			
		Incineration of coating & adhesives			supposed that all coatings are burnt off the cladding before EoL of the cladding itself
		Recycling of aluminium plates, window frame, interface and supports			
		Recycling of glass			

Table 34 Design data of the EWP GRP reference.

Main	Sub	Material	*Amount*	*Unit*	*Remarks*
Production of skin	GRP	GFRP - polyester & hand lay-up	8.11	kg	
	Coating	Gelcoat	0.29	kg	
Production of internal layer	GRP	GFRP - polyester & hand lay-up	3.41	kg	
	Coating	Coatings	0.19	kg	
Production of other components	Transparent window glass	Glass	7.71	kg	
	Frame for the window glass	Aluminium, extruded profile	8.32	kg	
	Interfaces for panel to panel	Aluminium, extruded profile	1.70	kg	
	Gaskets	EPDM rubber	0.69	kg	
	Wooden frame to increase the stiffness of the panel	Softwood, window frame, untreated	55.70	kg	
	Boards	Plywood	9.20	kg	
	Thermal insulation of the panel	Rockwool	12.50	Kg	
	Supports	Aluminium, product	0.82	Kg	
	Adhesives	Macroplast	0.77	kg	7.06 kg per panel (of ~9.2 m^2)
Maintenance	Cleaning	Water & soap	80	m2	Every year, both skin and internal, thus 40x 1m2 x 2
End-of-life	Disposal	Incineration of composite, wooden frame, boards, rock wool and rubber gaskets			

	Incineration of coating & adhesives		supposed that all coatings are burnt off the cladding before EoL of the cladding itself
	Recycling of aluminium window frame, interface and supports		
	Recycling of glass		

8.2.4 Case study 3: Internal partition kit system

Table 35 Design data of the IPK BioBuild demonstrator unit.

Main	Sub	Material	Amount	Unit	Remarks
Production of panel	Fibres	Jute, woven fabric	7.24	kg	including losses (2.5% in vacuum bagging and 2% in prepreg)
	Resin	PFA resin	13.80	kg	including additives and losses (5% in vacuum bagging and 2% in prepreg)
	Production	Production by vacuum bagging	1.00	m2	19.9 kg
	Production	Production of prepregs	1.00	m2	19.9 kg
	Coating	Coatings	0.98	kg	
Production of other components	Primary substructure	Softwood, window frame, untreated	6.01	kg	
	Secondary substructure	Aluminium, extruded profile	0.66		
	Insulation	Rockwool	3.01	kg	
	Fixings & brackets	Aluminium, products	0.36	kg	
	Adhesives	SIKAFAST	0.13	kg	
Maintenance	Cleaning	Cleaning (soapy)	0	m2	No cleaning for internal structures
	Repaint	Coatings	0	kg	No repaint in 15 years
End-of-life	Disposal	Incineration of biocomposite and wooden substructure			
		Incineration of rockwool,			
		Recycling of aluminium substructure and fixings			

Table 36 Design data of the IPK Dorma reference.

Main	Sub	Material	Amount	Unit	Remarks
Production of panel	Surface finish	HPL, modelled as GFRP, polyester resin, injection moulding	2.00	kg	No better proxy available
	MDF panel	MDF	7.69	kg	
Production of other components	Frame	Aluminium, extruded profile	5.92		
	Core	Rockwool	4.80	kg	
	Fixings & brackets	Aluminium, products	0.36	kg	
Maintenance	Cleaning	Cleaning (soapy)	0	m2	No cleaning for internal structures

	Repaint	Coatings	0	kg	No repaint in 15 years
End-of-life	Disposal	Incineration of composite			
		Incineration of MDF			
		Incineration of rockwool,			
		Recycling of aluminium frame and fixings			

8.2.5 Case study 4: Suspended ceiling kit

Table 37 Design data of the SCK BioBuild demonstrator unit.

Main	Sub	Material	*Amount*	*Unit*	*Remarks*
Production of lamellae	Fibres	Jute, woven fabric	3.37	kg	including losses (2.5% in infusion)
	Resin	Biopolyester resin	4.35	kg	including additives and losses (10% in infusion)
	Production	Production by Infusion	1.00	m2	7.72 kg
	Coating	Coatings	1.01	kg	
Production of other components	Substructure	Aluminium, extruded profile	1.80	kg	
	Brackets	Aluminium, product	0.26	kg	
	Hangers	Galvanised steel	0.07	kg	
Maintenance	Cleaning	Cleaning (soapy)	0	m2	No cleaning for internal structures
	Repaint	Coatings	0	kg	No repaint in 15 years
End-of-life	Disposal	Incineration of biocomposite			
		Recycling of aluminium substructure & brackets			
		Incineration of hooks			

Table 38 Design data of the SCK timber reference.

Main	Sub	Material	*Amount*	*Unit*	*Remarks*
Production of lamellae	Plywood	Plywood	11.00	kg	
Production of other components	Substructure	Aluminium, extruded profile	1.80	kg	
	Brackets	Aluminium, product	0.26	kg	
	Hangers	Galvanised steel	0.07	kg	
Maintenance	Cleaning	Cleaning (soapy)	0	m2	No cleaning for internal structures
	Repaint	Coatings	0	kg	No repaint in 15 years
End-of-life	Disposal	Incineration of plywood			
		Recycling of aluminium substructure & brackets			
		Incineration of hooks			

9 Appendix B: List of exclusions for the system boundaries.

The exclusions from the system boundaries can be described by means of the life cycle picture as shown in the scope chapter (chapter 2). In Figure 28 below, it is shown again. The life cycle of the BioBuild products is assessed from cradle (material winning) to grave (end-of-life of the product).

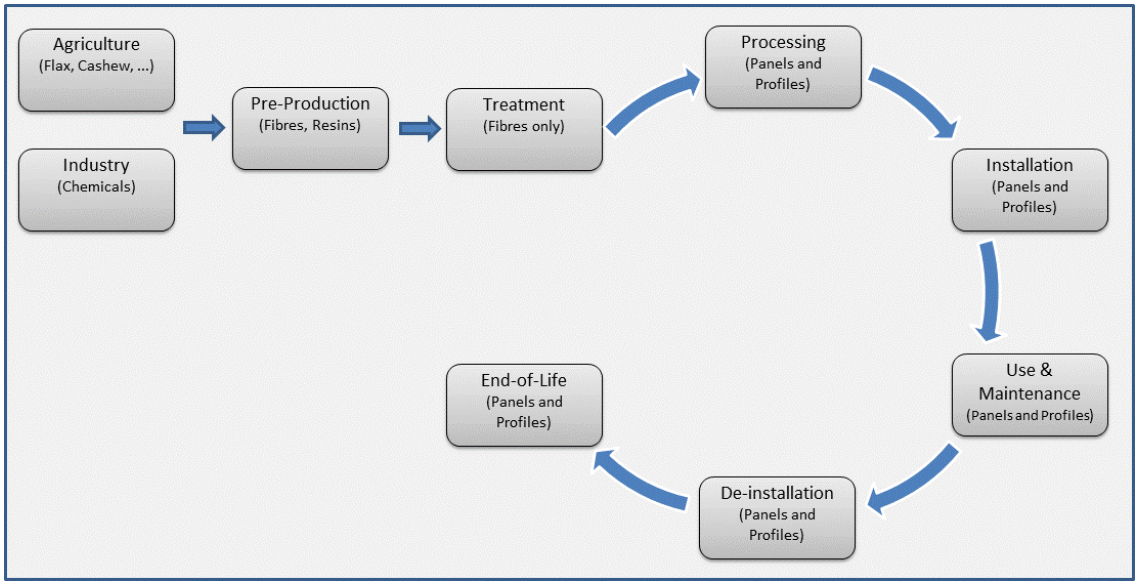


Figure 28 Life cycle of the BioBuild products.

The main exclusions from the system boundaries are:

1. Transport of persons (workers) is excluded, in line with EN ISO15978, which sets requirements for buildings (CEN European Committee for Standardization, 2010). Transport of equipment is not included because it is supposed to be the same in all case variants.
2. The installation phase. Since this phase is supposed to be comparable for the BioBuild and the benchmark products, it was considered irrelevant to take it into account.
3. Transport of the product to the user (i.e. building site) is explicitly excluded from the calculation as this is not product specific but application specific.
4. The use phase. The BioBuild products are designed to fulfil a certain function, i.e. to deliver the same energetic and functional performance as the benchmarks. The use phase of the product, including the energy use of the building in which the products are applied, is thus irrelevant for the comparison of the products. In the description of the reference unit, a specific thermal performance requirement is described.
5. The de-installation phase is supposed to cover the same impacts for the BioBuild products as for the benchmarks. Therefore the same argument as the one given in point 1 on this list applies here.
6. Transport to the end-of-life treatment facility is not taken into account, because this would require knowledge of the location where the product is used.

9.1 Exclusions in the health assessment

The health assessment differs only in one aspect from the environmental assessment: the background processes are not broken up into their underlying processes; it is thus a gate to grave scope (from basic (chemical) components till end-of-life). For example 1 kg of chemicals is noted as “1 kg from chemical industry” and not split up in the crude oil winning that is required for that, the energy production, the transport towards the chemical plant, etcetera. All base products (e.g. the ingredients for 1 kg of resin) are included in the assessment, but the products and processes that flow forth from them are excluded from the

assessment. This implies that all crude oil winning for the chemical industry is excluded, as well as the agricultural processes that precede the bioresins and fibres.

9.2 Exclusions in the cost assessment

For the life cycle cost assessment, the data are derived on another level of detail than for the environmental impact assessment. The main differences are:

1. The input materials are valuated at the moment that they have to be purchased for BioBuild, meaning that the costs for fibres and chemicals are taken into account, but not the costs of agricultural or chemical processes. This is because the consortium has no information about those primary processes. Since it has no relevance for the total cost of ownership assessment, it does not harm the calculations if it is not taken into account.
2. The processing, maintenance and end-of-life processes are not split up into the same level of detail as in the environmental assessment: the costs are not assessed per kilogram and mega joule, but rather for the process as a whole, because this makes more sense in a cost assessment.
3. Transport has been included only partially. The transport costs towards the production plant are included indirectly, as they are assumed to be included in the purchase costs of the base materials. However, costs of the transport of the BioBuild or reference products from the factory where they are produced towards the construction site, is not included in any of the cases because this factor is too unsure to be modelled in any of the cases. This transport distance can vary a lot for each country and product and therefore it would be only confusing if it was included.

10 Appendix C: List of assumptions

The most important assumptions made in this final assessment report for BioBuild are:

1. Life time. The life time of all products was considered the same for each case: 40 years for the external products (ECK & EWP) and 15 years for the internal products (IPK & SCK). No difference is made between the expected life time of GFRP, aluminium, biocomposite or other products; they were all supposed to fulfil this period and no longer life time benefits were included in the calculations.
2. Technological scope. The BioBuild products are modelled as if they were on the same level of technological development as the benchmark products. Since there was only laboratory information about the BioBuild materials and processes available, hence no information was available about their installation, maintenance and end-of-life processes. We assumed that the maintenance, installation and end-of-life processes of the BioBuild product would be comparable to the current market alternatives. This assumption might cause over- or underestimations of the material amounts and process information. This assumption influences all assessments: embodied energy, costs, eco-efficiency and health results.
3. Temporal scope. The temporal scope of the industrial developments is limited to the current situation up to the upcoming years and does not include predictions of future market trends, since those are impossible to predict with sufficient accuracy. This is an eternal problem of building product assessments, due to their (expected) long life time.
4. Functional performance. It is assumed that the biocomposite products could be designed in such a way that the functional performance would be comparable to the benchmark products. Of course, typical material differences can be expected. However, since no major disadvantages of the BioBuild designs were expected, we left this out of further assessment.
5. Fibre treatment. The performance of the fibres with and without any kind of treatment has been investigated in work package 2 of this project. However, the impact of certain treatments on the performance and life time of the fibres and the biocomposite products as a whole is not entirely clear yet. In the optimization design, it was assumed that a certain amount of treatment would be necessary (and thus beneficial) for the final biocomposite product. For this treatment, an average of the assessed treatments was taken as a proxy. Since the impact of the treatment forms a significant part of the total (energy) impact, this is an important assumption.
6. End-of-life. It is assumed that the biocomposite products will be incinerated in a municipal solid waste incineration plant after their life time, with partial energy recovery. This can be either lower or higher in practise, because if at the moment of deconstruction, the MSWI installations would have higher efficiencies or if recycling of biocomposite products would become possible, the negative results (= impact) of the BioBuild products would become larger. Contrastingly, if the heat recovery after incineration will be less efficient than expected or if the BioBuild product is not incinerated but instead dumped in a landfill, there will be less energetic benefits of the end-of-life process, which would result in higher total (net) impacts of the product.
7. Allocation of by-products. Many of the raw biobased materials that are used in this project – including the PFA resin – are not main products, but by-products of a certain food or other (to humans) important bio product. In all cases, by-products are not considered “burden-free”, but they receive a part of the environmental impact based on their economic value and mass. This economic allocation is only valid when the values remain the same during the considered time period. If the values of the main products and by-products (i.e., the market prices) would change, the environmental impacts would change as well. We assumed these values to be stable.

11 Appendix D: Additional impact categories and their characterisation factors

11.1 Additional impact categories

During the BioBuild project, several impact categories have been developed that can be considered as complementary to the regular set of environmental impact categories as prescribed by ISO15804 (CEN European Committee for Standardization, 2012) and the ILCD (European Commission - JRC - IES, 2010). These additional impact categories have been developed in order to provide more insight on the environmental impacts related to biobased products. The following paragraphs describe which characterization factors have been used. More background information on the developed additional categories can be found in a currently submitted but not yet published article (Keijzer, Jongeneel, Horssen, Vos, Ligthart, & Harmelen, 2015 (submitted - not published)).

11.2 Land occupation and transformation

Land occupation and transformation are quantified based on the ecosystem services theory (see (Costanza, et al., 1997) and (Groot, et al., 2012)) and adapted by TNO for the specific land use types, differentiated for occupation and transformation and split into human resource related services and biotic resource related. Table 39 and Table 40 show the characterization factors for land occupation and land transformation respectively.

Table 39 Characterisation factors for land occupation, split into the value related to Biotic Resources (BR) and Human Resources (HR). Values are expressed in euros per m^2a.

Land occupation type	BR value	HR value
Arable land use, soy bean, Argentina	-0.00123	-0.04173
Arable land use, soy bean, Brazil	-0.00123	-0.04173
Forestry	-0.03424	-0.06221
Occupation, agriculture	-0.00422	-0.02561
Occupation, arable	-0.00422	-0.0521
Occupation, arable, fallow	0.001759	0.002619
Occupation, arable, conservation tillage	-0.00721	-0.03367
Occupation, arable, conventional tillage	-0.00422	-0.02561
Occupation, arable, flooded crops	-0.00721	-0.01236
Occupation, arable, greenhouse	0.001759	-0.05959
Occupation, arable, integrated	-0.00721	-0.00487
Occupation, arable, irrigated	-0.00422	-0.02561
Occupation, arable, irrigated, extensive	-0.00721	-0.01855
Occupation, arable, irrigated, intensive	-0.00422	-0.02561
Occupation, arable, non-irrigated	-0.00422	-0.03885
Occupation, arable, non-irrigated, diverse-intensive	-0.00422	-0.03885
Occupation, arable, non-irrigated, extensive	-0.00422	-0.03885
Occupation, arable, non-irrigated, fallow	0.001759	0.002619
Occupation, arable, non-irrigated, intensive	-0.00422	-0.03885
Occupation, arable, non-irrigated, monotone-intensive	-0.00123	-0.02848
Occupation, arable, organic	-0.0102	-0.0233
Occupation, arable, reduced tillage	-0.00721	-0.02042
Occupation, artificial areas	0.002862	0.002619
Occupation, construction site	0.002862	0.002619
Occupation, dump site	0.002862	0.002619

Occupation, dump site, benthos	0.002862	0.002619
Occupation, forest	-0.03424	-0.06221
Occupation, forest, extensive	-0.08471	-0.11383
Occupation, forest, intensive	-0.03424	-0.06221
Occupation, forest, intensive, clear-cutting	-0.02855	-0.06221
Occupation, forest, intensive, normal	-0.03424	-0.06221
Occupation, forest, intensive, short-cycle	-0.03263	-0.06221
Occupation, forest, used	-0.06994	-0.0944
Occupation, grassland	-0.06826	-0.08868
Occupation, grassland, for livestock grazing	-0.0893	-0.0702
Occupation, grassland, not used	-0.0893	-0.01775
Occupation, grassland/pasture/meadow	-0.06826	-0.08289
Occupation, heterogeneous, agricultural	-0.00422	-0.02561
Occupation, industrial area	0.002862	0.002619
Occupation, industrial area, benthos	0.002862	0.002619
Occupation, industrial area, built up	0.002862	0.002619
Occupation, industrial area, vegetation	0.002862	0.002619
Occupation, mineral extraction site	0.002862	0.002619
Occupation, pasture and meadow	-0.06826	-0.08289
Occupation, pasture and meadow, extensive	-0.0893	-0.08191
Occupation, pasture and meadow, intensive	-0.06826	-0.08381
Occupation, pasture and meadow, organic	-0.11035	-0.07975
Occupation, permanent crop	-0.00123	-0.03223
Occupation, permanent crop, fruit	-0.00123	-0.03223
Occupation, permanent crop, fruit, extensive	-0.00422	-0.02517
Occupation, permanent crop, fruit, intensive	-0.00123	-0.03223
Occupation, permanent crop, vine	-0.00123	-0.03223
Occupation, permanent crop, vine, extensive	-0.00422	-0.02517
Occupation, permanent crop, vine, intensive	-0.00123	-0.03223
Occupation, permanent crops, irrigated	-0.00123	-0.02561
Occupation, permanent crops, irrigated, extensive	-0.00422	-0.01855
Occupation, permanent crops, irrigated, intensive	-0.00123	-0.02561
Occupation, permanent crops, non-irrigated	-0.00123	-0.03885
Occupation, permanent crops, non-irrigated, extensive	-0.00422	-0.02848
Occupation, permanent crops, non-irrigated, intensive	-0.00123	-0.03885
Occupation, sea and ocean	0.002862	0.002619
Occupation, shrub land, sclerophyllous	-0.08826	-0.01548
Occupation, sparsely vegetated areas, steppe, tundra, badlands	-0.1314	-0.02125
Occupation, traffic area	0.002862	0.002619
Occupation, traffic area, rail embankment	0.002862	0.002619
Occupation, traffic area, rail network	0.002862	0.002619
Occupation, traffic area, road embankment	0.002862	0.002619
Occupation, traffic area, road network	0.002862	0.002619

Occupation, tropical rain forest	-0.28404	-0.18428
Occupation, unknown	-0.10314	-0.09438
Occupation, urban	0.002862	0.002619
Occupation, urban, continuously built	0.002862	0.002619
Occupation, urban, discontinuously built	0.002862	0.002619
Occupation, urban, green areas	0.002862	0.002619
Occupation, urban/industrial fallow	0.002862	0.002619
Occupation, water bodies, artificial	0	0
Occupation, water courses, artificial	0	0
Special uses (parks and wildlife reserves)	-0.17982	-0.13326

Table 40 Characterisation factors for land transformation, split into the value related to Biotic Resources (BR) and Human Resources (HR). Values are expressed in euros per m^2. Land transformation types with 0 value (for example for transformation from dump site) are not shown in this table.

Land transformation type	BR value	HR value
Transformation, from agriculture	0.1416127	0.564509
Transformation, from arable	0.1416127	1.094343
Transformation, from arable, fallow	0.0220533	0
Transformation, from arable, irrigated	0.1416127	0.564509
Transformation, from arable, irrigated, extensive	0.2013924	0.42338176
Transformation, from arable, irrigated, intensive	0.1416127	0.02822545
Transformation, from arable, non-irrigated	0.1416127	0.564509
Transformation, from arable, non-irrigated, diverse-intensive	0.1416127	0.829426
Transformation, from arable, non-irrigated, extensive	0.1416127	0.829426
Transformation, from arable, non-irrigated, fallow	0.0220533	0.829426
Transformation, from arable, non-irrigated, intensive	0.1416127	0
Transformation, from arable, non-irrigated, monotone-intensive	0.081833	0.829426
Transformation, from arable, organic	0.2611721	0.6220695
Transformation, from artificial areas	0	0.51839126
Transformation, from forest	0.742045	1.29649826
Transformation, from forest, extensive	1.7515036	2.3289117
Transformation, from forest, intensive	0.742045	1.29649826
Transformation, from forest, intensive, clear-cutting	0.628311	1.29649826
Transformation, from forest, intensive, normal	0.742045	1.29649826
Transformation, from forest, intensive, short-cycle	0.70979726	1.29649826
Transformation, from forest, natural	0.742045	1.29649826
Transformation, from forest, primary	0.742045	1.29649826
Transformation, from forest, secondary	0.742045	1.29649826
Transformation, from forest, used	1.45600326	1.94034366
Transformation, from grassland	1.4223685	1.82605486
Transformation, from grassland, for livestock grazing	1.843323	1.45635
Transformation, from grassland, not used	1.843323	0.40743126
Transformation, from grassland/pasture/meadow	1.4223685	1.71024036

Transformation, from heterogeneous, agricultural	0.1416127	0.564509
Transformation, from pasture and meadow	1.4223685	1.71024036
Transformation, from pasture and meadow, extensive	1.843323	1.69054496
Transformation, from pasture and meadow, intensive	1.4223685	1.7286181
Transformation, from pasture and meadow, organic	2.2642775	1.64740926
Transformation, from permanent crop	0.081833	0.6969675
Transformation, from permanent crop, fruit	0.081833	0.6969675
Transformation, from permanent crop, fruit, extensive	0.1416127	0.55584026
Transformation, from permanent crop, fruit, intensive	0.081833	0.6969675
Transformation, from permanent crop, vine	0.081833	0.6969675
Transformation, from permanent crop, vine, extensive	0.1416127	0.55584026
Transformation, from permanent crop, vine, intensive	0.081833	0.6969675
Transformation, from permanent crops, irrigated	0.081833	0.564509
Transformation, from permanent crops, irrigated, extensive	0.1416127	0.42338176
Transformation, from permanent crops, irrigated, intensive	0.081833	0.564509
Transformation, from permanent crops, non-irrigated	0.081833	0.829426
Transformation, from permanent crops, non-irrigated, extensive	0.1416127	0.6220695
Transformation, from permanent crops, non-irrigated, intensive	0.081833	0.829426
Transformation, from shrub land, sclerophyllous	1.822518	0.362007
Transformation, from tropical rain forest	5.738019	3.737965
Transformation, from unknown	2.12	1.94
Transformation, from unspecified, natural	2.12	1.94
Transformation, to agriculture	-0.1416127	-0.564509
Transformation, to agriculture, mosaic	-0.2013924	-0.149796
Transformation, to arable	-0.1416127	-1.094343
Transformation, to arable, fallow	-0.0220533	0
Transformation, to arable, irrigated	-0.1416127	-0.564509
Transformation, to arable, irrigated, extensive	-0.2013924	-0.42338176
Transformation, to arable, irrigated, intensive	-0.1416127	-0.564509
Transformation, to arable, non-irrigated	-0.1416127	-0.829426
Transformation, to arable, non-irrigated, diverse-intensive	-0.1416127	-0.829426
Transformation, to arable, non-irrigated, extensive	-0.1416127	-0.829426
Transformation, to arable, non-irrigated, fallow	-0.0220533	0
Transformation, to arable, non-irrigated, intensive	-0.1416127	-0.829426
Transformation, to arable, non-irrigated, monotone-intensive	-0.081833	-0.6220695
Transformation, to arable, organic	-0.2611721	-0.51839126
Transformation, to forest	-0.742045	-1.29649826
Transformation, to forest, extensive	-1.7515036	-2.3289117
Transformation, to forest, intensive	-0.742045	-1.29649826
Transformation, to forest, intensive, clear-cutting	-0.628311	-1.29649826
Transformation, to forest, intensive, normal	-0.742045	-1.29649826
Transformation, to forest, intensive, short-cycle	-0.70979726	-1.29649826
Transformation, to heterogeneous, agricultural	-0.1416127	-0.564509

Transformation, to pasture and meadow	-1.4223685	-1.71024036
Transformation, to pasture and meadow, extensive	-1.843323	-1.69054496
Transformation, to pasture and meadow, intensive	-1.4223685	-1.7286181
Transformation, to pasture and meadow, organic	-2.2642775	-1.64740926
Transformation, to permanent crop	-0.081833	-0.6969675
Transformation, to permanent crop, fruit	-0.081833	-0.6969675
Transformation, to permanent crop, fruit, extensive	-0.1416127	-0.55584026
Transformation, to permanent crop, fruit, intensive	-0.081833	-0.6969675
Transformation, to permanent crop, vine	-0.081833	-0.6969675
Transformation, to permanent crop, vine, extensive	-0.1416127	-0.55584026
Transformation, to permanent crop, vine, intensive	-0.081833	-0.6969675
Transformation, to permanent crops, irrigated	-0.081833	-0.564509
Transformation, to permanent crops, irrigated, extensive	-0.1416127	-0.42338176
Transformation, to permanent crops, irrigated, intensive	-0.081833	-0.564509
Transformation, to permanent crops, non-irrigated	-0.081833	-0.829426
Transformation, to permanent crops, non-irrigated, extensive	-0.1416127	-0.6220695
Transformation, to permanent crops, non-irrigated, intensive	-0.081833	-0.829426
Transformation, to shrub land, sclerophyllous	-1.822518	-0.362007
Transformation, to tropical rain forest	-5.738019	-3.737965
Transformation, to unknown	-2.12	-1.94

11.3 Soil loss

The impact category “soil loss” is directly calculated from the life cycle inventory and has no additional characterization factors. The unit is kg/m^{2}a.

11.4 Soil organic matter

From the complete set of environmental indicators that we propose for valuable assessments of biobased products, we decided to include soil organic matter (SOM) as one of the impact categories. The best available characterization method for SOM is the method that the ILCD already applies for “land use” (based on Mila i Canals *et al.*, 2007). Therefore the characterization factors are not displayed in this appendix.

11.5 Water depletion

The characterization factors developed for BioBuild differ slightly from the ILCD proposed method. The characterization factors are shown in Table 41.

Table 41 Characterization factors for the BioBuild water depletion method.

Water resource	CF	Unit
Water, cooling, drinking	0	m3 water eq / kg
Water, cooling, salt, ocean	0	m3 water eq / kg
Water, cooling, surface	0	m3 water eq / kg
Water, cooling, unspecified natural origin/kg	0	m3 water eq / kg
Water, cooling, unspecified natural origin/m3	0	m3 water eq / m3
Water, cooling, well, in ground	0	m3 water eq / kg
Water, fossil	1	m3 water eq / m3
Water, fresh	0.15	m3 water eq / m3
Water, lake	0.15	m3 water eq / m3

Water, river	0.15	m3 water eq / m3
Water, unspecified natural origin, AT	0	m3 water eq / m3
Water, unspecified natural origin, AU	0	m3 water eq / m3
Water, unspecified natural origin, BE	0.3	m3 water eq / m3
Water, unspecified natural origin, CA	0	m3 water eq / m3
Water, unspecified natural origin, CH	0	m3 water eq / m3
Water, unspecified natural origin, CZ	0.15	m3 water eq / m3
Water, unspecified natural origin, DE	0.3	m3 water eq / m3
Water, unspecified natural origin, DK	0.3	m3 water eq / m3
Water, unspecified natural origin, ES	0.3	m3 water eq / m3
Water, unspecified natural origin, extreme water stress	1	m3 water eq / m3
Water, unspecified natural origin, FI	0	m3 water eq / m3
Water, unspecified natural origin, FR	0.15	m3 water eq / m3
Water, unspecified natural origin, GB	0	m3 water eq / m3
Water, unspecified natural origin, GR	0.15	m3 water eq / m3
Water, unspecified natural origin, high water stress	0.5	m3 water eq / m3
Water, unspecified natural origin, HU	0	m3 water eq / m3
Water, unspecified natural origin, IE	0	m3 water eq / m3
Water, unspecified natural origin, IS	0.00E+00	m3 water eq / m3
Water, unspecified natural origin, IT	0.3	m3 water eq / m3
Water, unspecified natural origin, JP	0.3	m3 water eq / m3
Water, unspecified natural origin, KR	0.15	m3 water eq / m3
Water, unspecified natural origin, low water stress	0	m3 water eq / m3
Water, unspecified natural origin, LU	0.3	m3 water eq / m3
Water, unspecified natural origin, medium water stress	0.3	m3 water eq / m3
Water, unspecified natural origin, moderate water stress	0.15	m3 water eq / m3
Water, unspecified natural origin, MX	0.15	m3 water eq / m3
Water, unspecified natural origin, NL	0	m3 water eq / m3
Water, unspecified natural origin, NO	0	m3 water eq / m3
Water, unspecified natural origin, NZ	0	m3 water eq / m3
Water, unspecified natural origin, OECD	0.15	m3 water eq / m3
Water, unspecified natural origin, PL	0.3	m3 water eq / m3
Water, unspecified natural origin, PT	0.15	m3 water eq / m3
Water, unspecified natural origin, SE	0	m3 water eq / m3
Water, unspecified natural origin, TR	0.15	m3 water eq / m3
Water, unspecified natural origin, US	0.15	m3 water eq / m3
Water, unspecified natural origin/kg	0.00015	m3 water eq / kg
Water, unspecified natural origin/m3	0.15	m3 water eq / m3
Water, unspecified, very high water stress	0.8	m3 water eq / m3
Water, well, in ground	0.15	m3 water eq / m3

12 Appendix E: detailed results

12.1 Case study 1: External cladding kit

Table 42 Environmental impacts per component of the ECK BioBuild Demonstrator.

Impact category	Unit	Cladding	Coating	Adhesives	Substructure	Brackets	Insulation	Fixings	End-of-life
GWP	kg CO_2 eq	5,2E+01	1,9E+00	9,0E-01	1,1E+01	2,7E+00	7,3E+00	5,2E-01	3,7E+00
ODP	kg CFC-11 eq	5,7E-06	2,7E-07	2,4E-08	6,8E-07	1,7E-07	3,6E-07	3,4E-08	-5,4E-07
HTP cancer	CTUh	1,9E-06	4,9E-08	2,1E-08	6,5E-07	1,6E-07	5,4E-08	3,1E-08	2,7E-07
HTP non-cancer	CTUh	2,4E-05	1,5E-07	9,4E-08	9,0E-07	2,2E-07	2,9E-07	4,6E-08	5,4E-07
PM	kg $PM_{2.5}$ eq	8,4E-02	9,1E-04	1,5E-03	5,6E-03	1,4E-03	6,5E-03	2,6E-04	-3,6E-03
IR-HH	kg ^{235}U eq	4,5E+00	2,0E-01	2,1E-02	1,0E+00	2,5E-01	6,4E-01	4,8E-02	-1,6E+00
IR-E	CTUe	4,0E-05	1,8E-06	1,9E-07	9,3E-06	2,3E-06	5,5E-06	4,4E-07	-1,5E-05
POCP	kg NMVOC eq	1,6E-01	2,9E-02	4,8E-03	2,3E-02	5,6E-03	2,5E-02	1,1E-03	-1,1E-02
AP	molc H^+ eq	1,8E+00	1,0E-02	5,9E-03	5,8E-02	1,4E-02	6,7E-02	2,7E-03	-3,7E-02
TEP	molc N eq	7,5E+00	1,5E-02	1,6E-02	7,9E-02	1,9E-02	1,2E-01	3,8E-03	-3,5E-02
FEP	kg P eq	1,3E-02	2,4E-04	1,7E-05	6,9E-04	1,7E-04	4,0E-04	3,4E-05	-6,2E-04
MEP	kg N eq	1,3E-01	1,4E-03	1,5E-03	6,9E-03	1,7E-03	6,5E-03	3,4E-04	-3,1E-03
FAETP	CTUe	1,2E+02	1,0E+00	7,0E-01	8,3E+00	2,0E+00	1,9E+00	4,1E-01	5,4E+01
LU	kg C deficit	8,4E+02	4,6E+00	1,7E-01	1,0E+01	2,6E+00	6,1E+00	5,1E-01	-4,4E+00
WD-ILCD	m^3 water eq	6,1E-02	2,5E-03	5,9E-04	7,4E-03	1,8E-03	1,1E-02	4,5E-04	-5,8E-03
WD-BB	m^3 water eq	7,3E-02	5,6E-02	2,3E-03	5,4E-04	6,9E-03	1,7E-03	1,0E-02	4,2E-04
ADP	kg Sb eq	2,2E-04	9,7E-06	1,7E-06	8,4E-05	2,1E-05	2,2E-05	4,1E-06	5,3E-05
Emb. energy non-renew	MJ	7,1E+02	6,0E+01	1,8E+01	1,5E+02	3,7E+01	1,3E+02	7,1E+00	-1,6E+02
Emb. energy renew	MJ	3,2E+02	1,3E+00	2,7E-01	2,9E+01	7,0E+00	9,5E+00	1,3E+00	-1,7E+01
Bio-related impacts	**Unit**	**Cladding**	**Coating**	**Adhesives**	**Substructure**	**Brackets**	**Insulation**	**Fixings**	**End of life**
LOcc-BR	euro	-2,9E-01	-2,4E-01	-1,6E-03	-1,2E-04	-8,8E-03	-2,2E-03	-3,7E-02	-2,0E-04
LOcc-HR	euro	-2,7E+00	-2,6E+00	-3,0E-03	-2,2E-04	-1,6E-02	-3,9E-03	-6,8E-02	-3,8E-04
LTrans-BR	euro	1,2E+00	1,2E+00	1,2E-03	7,3E-05	5,2E-03	1,3E-03	5,8E-03	2,3E-04
LTrans-HR	euro	-1,1E+00	-1,1E+00	1,5E-03	7,9E-05	5,4E-03	1,3E-03	8,2E-03	2,5E-04
Soil loss	$kg \cdot m^{-2} \cdot a^{-1}$	1,8E+01	1,8E+01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00

Table 43 Environmental impacts of the four ECK variants.

Impact category	Unit	BioBuild Demonstrator	BioBuild Optimized	Aluminium	GRP
GWP	kg CO_2 eq	8,0E+01	5,7E+01	7,6E+01	6,7E+01
ODP	kg CFC-11 eq	6,7E-06	4,9E-06	3,1E-06	4,2E-06
HTP cancer	CTUh	3,2E-06	3,4E-06	5,1E-06	8,5E-07
HTP non-cancer	CTUh	2,6E-05	9,7E-06	1,2E-05	7,5E-06
PM	kg $PM_{2.5}$ eq	9,7E-02	7,1E-02	3,8E-02	2,4E-02
IR-HH	kg ^{235}U eq	5,0E+00	2,7E+00	4,8E+00	3,5E+00
IR-E	CTUe	4,4E-05	2,4E-05	4,3E-05	3,1E-05
POCP	kg NMVOC eq	2,4E-01	1,5E-01	2,1E-01	1,4E-01
AP	molc H^+ eq	1,9E+00	3,6E-01	3,6E-01	2,6E-01
TEP	molc N eq	7,7E+00	9,6E-01	5,6E-01	4,6E-01
FEP	kg P eq	1,4E-02	8,9E-03	3,2E-03	1,7E-03
MEP	kg N eq	1,5E-01	6,6E-02	4,6E-02	3,7E-02
FAETP	CTUe	1,9E+02	1,6E+02	7,7E+01	7,6E+01
LU	kg C deficit	8,6E+02	1,9E+02	5,1E+01	2,4E+01
WD-ILCD	m^3 water eq	7,9E-02	5,3E-01	5,8E-02	6,9E-02
WD-BB	m^3 water eq	1,5E-01	4,9E-01	5,3E-02	6,4E-02
ADP	kg Sb eq	4,2E-04	3,0E-04	9,1E-04	3,6E-04
Emb. energy non-renew	MJ	9,5E+02	6,2E+02	1,1E+03	7,0E+02
Emb. energy renew	MJ	3,5E+02	4,9E+02	1,3E+02	3,1E+01
Bio-related impacts	**Unit**	**BioBuild Demonstrator**	**BioBuild Optimized**	**Aluminium**	**GRP**
LOcc-BR	euro	-5,7E-01	-1,2E-01	-8,7E-02	-5,8E-02
LOcc-HR	euro	-5,4E+00	-7,0E-01	-1,7E-01	-1,2E-01
LTrans-BR	euro	2,4E+00	1,2E-01	7,7E-02	6,0E-02
LTrans-HR	euro	-2,2E+00	-4,3E+00	5,6E-02	4,2E-02
Soil loss	$kg \cdot m^{-2} \cdot a^{-1}$	3,6E+01	1,1E+01	0,0E+00	0,0E+00

12.2 Case study 2: External wall panel

Table 44 Environmental impacts per component of the EWP BioBuild Demonstrator.

Impact category	Unit	Ext. skin	Int. skin	Coatings	Adhesives	Window glass	Window frame	Inter-face	Gaskets	Frame	Boards	Insu-lation	Supports	End-of-life
GWP	kg CO_2 eq	5,9E+01	3,0E+01	3,0E+00	3,6E+00	7,5E+00	8,0E+01	1,6E+01	1,8E+00	2,7E+01	9,2E+00	1,4E+01	9,8E+00	-1,0E+02
ODP	kg CFC-11 eq	3,7E-06	1,9E-06	3,2E-07	1,5E-08	6,8E-07	5,0E-06	1,0E-06	4,5E-07	2,6E-06	1,0E-06	6,9E-07	6,4E-07	-7,0E-06
HTP cancer	CTUh	9,1E-07	4,6E-07	2,4E-08	4,4E-08	2,7E-08	4,8E-06	9,7E-07	1,8E-08	6,6E-07	1,9E-07	1,1E-07	5,8E-07	-5,6E-06
HTP non-cancer	CTUh	1,5E-05	8,0E-06	2,2E-07	1,4E-07	2,0E-07	6,6E-06	1,4E-06	8,6E-08	6,3E-06	4,2E-06	5,5E-07	8,7E-07	2,0E-05
PM	kg $PM_{2.5}$ eq	5,7E-02	3,0E-02	1,0E-03	4,2E-03	5,0E-03	4,1E-02	8,3E-03	1,6E-03	4,3E-02	2,4E-02	1,3E-02	4,9E-03	-5,5E-02
IR-HH	kg ^{235}U eq	4,6E+00	2,4E+00	1,6E-01	4,4E-02	2,2E-01	7,6E+00	1,5E+00	1,5E-01	3,7E+00	1,2E+00	1,3E+00	9,1E-01	-1,1E+01
IR-E	CTUe	4,1E-05	2,1E-05	1,4E-06	4,0E-07	1,9E-06	6,8E-05	1,4E-05	1,3E-06	3,3E-05	1,1E-05	1,1E-05	8,2E-06	-1,0E-04
POCP	kg NMVOC eq	1,8E-01	9,1E-02	6,6E-03	1,1E-02	3,6E-02	1,7E-01	3,4E-02	6,5E-03	2,3E-01	6,0E-02	4,8E-02	2,1E-02	-2,0E-01
AP	molc H^+ eq	1,7E+00	8,6E-01	9,5E-03	1,8E-02	7,9E-02	4,2E-01	8,6E-02	8,8E-03	2,0E-01	6,7E-02	1,3E-01	5,1E-02	-5,1E-01
TEP	molc N eq	6,7E+00	3,5E+00	1,5E-02	3,2E-02	1,5E-01	5,8E-01	1,2E-01	1,5E-02	6,9E-01	2,3E-01	2,3E-01	7,1E-02	-6,8E-01
FEP	kg P eq	2,7E-02	1,4E-02	1,0E-04	3,4E-05	1,7E-04	5,1E-03	1,0E-03	9,5E-05	1,6E-03	5,8E-04	7,8E-04	6,3E-04	-6,1E-03
MEP	kg N eq	1,7E-01	8,6E-02	1,4E-03	4,1E-03	1,2E-02	5,1E-02	1,0E-02	1,3E-03	5,7E-02	1,7E-02	1,3E-02	6,4E-03	-6,0E-02
FAETP	CTUe	1,3E+02	6,7E+01	8,8E-01	2,2E+00	7,9E-01	6,1E+01	1,2E+01	6,4E-01	1,4E+01	6,2E+00	3,8E+00	7,6E+00	9,0E+01
LU	kg C deficit	4,7E+02	2,5E+02	1,2E+00	1,8E-01	9,2E+00	7,7E+01	1,6E+01	2,7E+00	1,4E+02	5,8E+01	1,2E+01	9,6E+00	-1,0E+02
WD-ILCD	m^3 water eq	8,9E-02	4,9E-02	2,7E-03	1,4E-02	1,1E-02	5,4E-02	1,1E-02	1,5E-03	1,1E-01	1,0E-02	2,1E-02	8,4E-03	-5,8E-02
WD-BB	m^3 water eq	8,2E-02	4,5E-02	2,5E-03	1,3E-02	1,0E-02	5,0E-02	1,0E-02	1,4E-03	9,8E-02	9,4E-03	2,0E-02	7,8E-03	-5,4E-02
ADP	kg Sb eq	1,0E-03	5,2E-04	6,3E-06	7,3E-06	7,1E-05	6,2E-04	1,3E-04	2,9E-03	4,0E-04	5,0E-05	4,4E-05	7,6E-05	2,3E-03
Emb. energy non-renew.	MJ	8,9E+02	4,6E+02	4,9E+01	7,5E+01	9,6E+01	1,1E+03	2,2E+02	6,2E+01	4,7E+02	1,9E+02	2,5E+02	1,3E+02	-1,9E+03
Emb. energy renew.	MJ	2,6E+02	1,4E+02	1,1E+00	2,5E+00	2,6E+00	2,1E+02	4,3E+01	1,4E+00	1,6E+03	4,1E+02	1,8E+01	2,5E+01	-2,8E+02
Bio-related	**Unit**	**Ext.**	**Int. skin**	**Coatings**	**Adhesives**	**Window**	**Window**	**Inter-**	**Gaskets**	**Frame**	**Boards**	**Insu-**	**Supports**	**End-of-life**

impacts		skin				glass	frame	face			lation			
LOcc-BR	euro	-3,2E-01	-1,7E-01	-1,2E-03	-3,1E-04	-8,5E-03	-6,4E-02	-1,3E-02	-3,0E-03	-1,4E+01	-5,8E+00	-7,3E-02	-3,8E-03	4,0E-02
LOcc-HR	euro	-2,6E+00	-1,3E+00	-2,1E-03	-5,7E-04	-1,6E-02	-1,2E-01	-2,4E-02	-5,4E-03	-2,5E+01	-1,1E+01	-1,3E-01	-7,0E-03	7,4E-02
LTrans-BR	euro	6,2E-02	7,0E-02	6,1E-04	1,6E-04	4,0E-03	3,8E-02	7,8E-03	1,2E-03	3,5E+00	1,2E+00	1,1E-02	4,4E-03	-3,3E-02
LTrans-HR	euro	8,5E-01	4,3E-01	6,5E-04	1,6E-04	4,4E-03	3,9E-02	8,0E-03	1,4E-03	3,4E+00	1,2E+00	1,6E-02	4,6E-03	-3,6E-02
Soil loss	$kg \cdot m^{-2} \cdot a^{-1}$	1,9E+01	9,9E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	8,5E+00	0,0E+00	0,0E+00	0,0E+00

Table 45 Environmental impacts of the four EWP variants.

Impact category	Unit	BioBuild Demonstrator	BioBuild Optimized	Aluminium	GRP
GWP	kg CO_2 eq	1,6E+02	1,3E+02	8,5E+01	1,2E+02
ODP	kg CFC-11 eq	1,1E-05	9,5E-06	8,5E-06	1,2E-05
HTP cancer	CTUh	3,2E-06	3,1E-06	2,5E-06	2,5E-06
HTP non-cancer	CTUh	6,4E-05	3,9E-05	6,8E-05	4,9E-05
PM	kg $PM_{2.5}$ eq	1,8E-01	1,3E-01	1,1E-01	1,2E-01
IR-HH	kg ^{235}U eq	1,2E+01	9,4E+00	1,1E+01	1,2E+01
IR-E	CTUe	1,1E-04	8,2E-05	9,5E-05	1,1E-04
POCP	kg NMVOC eq	6,9E-01	5,9E-01	5,6E-01	6,0E-01
AP	molc H^+ eq	3,1E+00	1,1E+00	7,5E-01	8,7E-01
TEP	molc N eq	1,2E+01	2,8E+00	1,7E+00	2,0E+00
FEP	kg P eq	4,5E-02	3,3E-02	7,9E-03	7,0E-03
MEP	kg N eq	3,7E-01	2,5E-01	1,4E-01	1,6E-01
FAETP	CTUe	4,0E+02	3,3E+02	1,0E+02	1,6E+02
LU	kg C deficit	9,4E+02	1,5E+02	2,6E+02	2,6E+02
WD-ILCD	m^3 water eq	3,2E-01	1,2E+00	2,4E-01	2,7E-01
WD-BB	m^3 water eq	3,0E-01	1,1E+00	2,3E-01	2,5E-01
ADP	kg Sb eq	8,1E-03	7,8E-03	9,6E-03	6,9E-03
Emb. energy non-renew	MJ	2,1E+03	1,8E+03	1,5E+03	1,9E+03

Emb. energy renew	MJ	2,4E+03	2,5E+03	2,1E+03	2,1E+03
Bio-related impacts	**Unit**	**BioBuild Demonstrator**	**BioBuild Optimized**	**Aluminium**	**GRP**
LOcc-BR	euro	-2,0E+01	-2,0E+01	-2,0E+01	-2,0E+01
LOcc-HR	euro	-3,9E+01	-3,7E+01	-3,6E+01	-3,6E+01
LTrans-BR	euro	4,8E+00	3,6E+00	4,8E+00	4,8E+00
LTrans-HR	euro	5,9E+00	-1,8E-01	4,7E+00	4,7E+00
Soil loss	$kg \cdot m^{-2} \cdot a^{-1}$	3,8E+01	2,3E+01	8,5E+00	8,5E+00

12.3 Case study 3: Internal partition kit

Table 46 Environmental impacts per component of the IPK BioBuild Demonstrator.

Impact category	Unit	Panel	Coatings	Adhesives	Primary structure	Secondary structure	Insulation	Fixings	End-of-life
GWP	kg CO_2 eq	7,7E+01	2,0E+00	6,2E-01	2,9E+00	6,3E+00	3,4E+00	4,2E+00	1,8E+00
ODP	kg CFC-11 eq	5,4E-06	2,5E-07	1,6E-07	2,8E-07	4,0E-07	1,7E-07	2,8E-07	-1,5E-06
HTP cancer	CTUh	1,6E-06	3,8E-08	4,4E-09	7,1E-08	3,8E-07	2,5E-08	2,5E-07	-5,6E-07
HTP non-cancer	CTUh	1,6E-05	1,7E-07	1,1E-08	6,8E-07	5,2E-07	1,3E-07	3,7E-07	1,8E-06
PM	kg $PM_{2.5}$ eq	1,2E-01	8,9E-04	3,0E-04	4,6E-03	3,2E-03	3,1E-03	2,1E-03	-9,8E-03
IR-HH	kg ^{235}U eq	1,4E+01	2,1E-01	8,8E-03	4,0E-01	6,0E-01	3,0E-01	3,9E-01	-4,0E+00
IR-E	CTUe	1,3E-04	1,9E-06	7,9E-08	3,6E-06	5,4E-06	2,6E-06	3,5E-06	-3,6E-05
POCP	kg NMVOC eq	2,4E-01	6,2E-03	2,2E-03	2,5E-02	1,3E-02	1,1E-02	8,9E-03	-3,3E-02
AP	molc H^+ eq	6,3E-01	1,1E-02	3,4E-03	2,2E-02	3,3E-02	3,1E-02	2,2E-02	-9,9E-02
TEP	molc N eq	1,6E+00	1,8E-02	5,1E-03	7,5E-02	4,6E-02	5,6E-02	3,1E-02	-1,1E-01
FEP	kg P eq	2,0E-02	2,4E-04	7,8E-06	1,7E-04	4,0E-04	1,9E-04	2,7E-04	-1,6E-03
MEP	kg N eq	1,3E-01	1,9E-03	6,2E-04	6,2E-03	4,0E-03	3,0E-03	2,8E-03	-9,7E-03
FAETP	CTUe	1,6E+02	1,1E+00	2,1E-01	1,5E+00	4,8E+00	9,1E-01	3,3E+00	1,3E+02
LU	kg C deficit	3,7E+02	2,3E+00	1,3E-01	1,5E+01	6,1E+00	2,8E+00	4,1E+00	-1,6E+01
WD-ILCD	m^3 water eq	1,0E+00	3,2E-03	2,8E-04	1,1E-02	4,3E-03	5,1E-03	3,6E-03	-1,6E-02
WD-BB	m^3 water eq	9,4E-01	2,9E-03	2,6E-04	1,1E-02	4,0E-03	4,7E-03	3,4E-03	-1,5E-02
ADP	kg Sb eq	3,2E-04	8,7E-06	2,3E-06	4,4E-05	4,9E-05	1,1E-05	3,3E-05	1,8E-04

Emb. energy non-renew	MJ	1,4E+03	4,6E+01	1,2E+01	5,1E+01	8,6E+01	6,1E+01	5,8E+01	-4,4E+02
Emb. energy renew	MJ	9,9E+02	1,3E+00	5,3E-01	1,7E+02	1,7E+01	4,5E+00	1,1E+01	-4,6E+01
Bio-related impacts	**Unit**	**Panel**	**Coatings**	**Adhesives**	**Primary structure**	**Secondary structure**	**Insulation**	**Fixings**	**End-of-life**
LOcc-BR	euro	-3,3E-01	-1,3E-03	-2,9E-04	-1,5E+00	-5,1E-03	-1,8E-02	-1,6E-03	9,8E-03
LOcc-HR	euro	-1,5E+00	-2,4E-03	-5,3E-04	-2,7E+00	-9,3E-03	-3,2E-02	-3,0E-03	1,8E-02
LTrans-BR	euro	1,8E-01	8,5E-04	1,0E-04	3,7E-01	3,0E-03	2,7E-03	1,9E-03	-6,2E-03
LTrans-HR	euro	-9,3E+00	9,5E-04	1,0E-04	3,7E-01	3,1E-03	3,8E-03	2,0E-03	-6,6E-03
Soil loss	$kg \cdot m^{-2} \cdot a^{-1}$	2,1E+01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00

Table 47 Environmental impacts of the three IPK variants.

Impact category	Unit	BioBuild Demonstrator	BioBuild Optimized	Dorma
GWP	kg CO_2 eq	9,9E+01	7,3E+01	3,7E+01
ODP	kg CFC-11 eq	5,4E-06	5,0E-06	4,4E-06
HTP cancer	CTUh	1,8E-06	1,1E-06	5,7E-07
HTP non-cancer	CTUh	2,0E-05	1,4E-05	1,9E-05
PM	kg $PM_{2.5}$ eq	1,3E-01	1,1E-01	2,3E-02
IR-HH	kg ^{235}U eq	1,2E+01	4,7E+00	3,9E+00
IR-E	CTUe	1,1E-04	4,1E-05	3,5E-05
POCP	kg NMVOC eq	2,7E-01	2,1E-01	1,0E-01
AP	molc H^+ eq	6,5E-01	4,7E-01	2,1E-01
TEP	molc N eq	1,8E+00	1,4E+00	3,8E-01
FEP	kg P eq	2,0E-02	1,6E-02	2,9E-03
MEP	kg N eq	1,4E-01	9,6E-02	2,9E-02
FAETP	CTUe	3,0E+02	2,4E+02	4,0E+01
LU	kg C deficit	3,8E+02	3,0E+02	2,8E+01
WD-ILCD	m^3 water eq	1,0E+00	8,2E-01	5,1E-02
WD-BB	m^3 water eq	9,5E-01	7,6E-01	4,7E-02
ADP	kg Sb eq	6,5E-04	5,3E-04	1,9E-03

Emb. energy non-renew	MJ	1,3E+03	7,4E+02	6,2E+02
Emb. energy renew	MJ	1,1E+03	1,0E+03	2,3E+02
Bio-related impacts	**Unit**	**BioBuild Demonstrator**	**BioBuild Optimized**	**Dorma**
LOcc-BR	euro	-1,8E+00	-1,6E+00	-2,3E-01
LOcc-HR	euro	-4,2E+00	-3,7E+00	-4,1E-01
LTrans-BR	euro	5,6E-01	5,0E-01	6,1E-02
LTrans-HR	euro	-8,9E+00	-6,7E+00	6,2E-02
Soil loss	$kg \cdot m^{-2} \cdot a^{-1}$	2,1E+01	2,0E+01	0,0E+00

12.4 Case study 4: Suspended ceiling kit

Table 48 Environmental impacts per component of the SCK BioBuild Demonstrator.

Impact category	Unit	Lamellae	Coatings	Substructure	Brackets	Hangers	End-of-life
GWP	kg CO_2 eq	2,9E+01	2,1E+00	1,7E+01	3,0E+00	2,5E-01	-1,1E+01
ODP	kg CFC-11 eq	1,7E-06	2,6E-07	1,1E-06	2,0E-07	1,6E-08	-1,1E-06
HTP cancer	CTUh	6,1E-07	3,9E-08	1,0E-06	1,8E-07	4,5E-08	-1,1E-06
HTP non-cancer	CTUh	1,4E-06	1,7E-07	1,4E-06	2,7E-07	1,1E-07	3,9E-06
PM	kg $PM_{2.5}$ eq	1,6E-02	9,2E-04	8,8E-03	1,5E-03	1,4E-04	-9,7E-03
IR-HH	kg ^{235}U eq	3,2E+00	2,1E-01	1,6E+00	2,8E-01	2,4E-02	-2,4E+00
IR-E	CTUe	2,9E-05	1,9E-06	1,5E-05	2,5E-06	2,1E-07	-2,2E-05
POCP	kg NMVOC eq	7,6E-02	6,4E-03	3,6E-02	6,4E-03	6,2E-04	-3,5E-02
AP	molc H^+ eq	2,4E-01	1,1E-02	9,1E-02	1,6E-02	1,1E-03	-9,7E-02
TEP	molc N eq	6,2E-01	1,9E-02	1,2E-01	2,2E-02	2,2E-03	-1,2E-01
FEP	kg P eq	1,3E-02	2,4E-04	1,1E-03	2,0E-04	2,0E-05	-1,0E-03
MEP	kg N eq	6,8E-02	2,0E-03	1,1E-02	2,0E-03	2,0E-04	-1,0E-02
FAETP	CTUe	8,3E+01	1,1E+00	1,3E+01	2,4E+00	5,2E-01	3,3E+01
LU	kg C deficit	-1,6E+01	2,4E+00	1,7E+01	3,0E+00	2,4E-01	-1,8E+01
WD-ILCD	m^3 water eq	4,5E-01	3,2E-03	1,2E-02	2,6E-03	5,1E-04	-9,4E-03
WD-BB	m^3 water eq	4,1E-01	3,0E-03	1,1E-02	2,4E-03	4,8E-04	-8,7E-03

ADP	kg Sb eq	5,2E-04	8,9E-06	1,3E-04	2,4E-05	2,9E-06	4,3E-04
Emb. energy non-renew	MJ	5,2E+02	4,8E+01	2,4E+02	4,2E+01	4,0E+00	-2,8E+02
Emb. energy renew	MJ	2,1E+02	1,3E+00	4,5E+01	7,7E+00	2,1E-01	-5,1E+01
Bio-related impacts	**Unit**	**Lamellae**	**Coatings**	**Substructure**	**Brackets**	**Hangers**	**End-of-life**
LOcc-BR	euro	-1,2E-01	-1,3E-03	-1,4E-02	-1,2E-03	-1,9E-04	5,5E-03
LOcc-HR	euro	-6,6E-01	-2,4E-03	-2,5E-02	-2,2E-03	-3,5E-04	1,0E-02
LTrans-BR	euro	-4,8E-01	8,8E-04	8,2E-03	1,4E-03	1,9E-04	-5,4E-03
LTrans-HR	euro	-2,8E+00	9,8E-04	8,5E-03	1,4E-03	1,8E-04	-6,1E-03
Soil loss	$kg \cdot m^{-2} \cdot a^{-1}$	6,2E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00

Table 49 Environmental impacts of the three SCK variants.

Impact category	Unit	BioBuild Demonstrator	BioBuild Optimized	Timber
GWP	kg CO_2 eq	4,1E+01	2,7E+01	1,0E+01
ODP	kg CFC-11 eq	2,2E-06	1,9E-06	1,4E-06
HTP cancer	CTUh	8,2E-07	5,0E-07	4,0E-07
HTP non-cancer	CTUh	7,3E-06	8,5E-06	1,1E-05
PM	kg $PM_{2.5}$ eq	1,7E-02	3,4E-02	3,0E-02
IR-HH	kg ^{235}U eq	3,0E+00	1,8E+00	1,9E+00
IR-E	CTUe	2,7E-05	1,6E-05	1,7E-05
POCP	kg NMVOC eq	9,1E-02	6,8E-02	8,1E-02
AP	molc H^+ eq	2,6E-01	1,7E-01	1,0E-01
TEP	molc N eq	6,7E-01	5,1E-01	3,1E-01
FEP	kg P eq	1,3E-02	5,6E-03	1,1E-03
MEP	kg N eq	7,3E-02	3,5E-02	2,3E-02
FAETP	CTUe	1,3E+02	9,0E+01	1,5E+01
LU	kg C deficit	-1,2E+01	1,1E+02	7,1E+01
WD-ILCD	m^3 water eq	4,6E-01	3,7E-01	2,0E-02
WD-BB	m^3 water eq	4,2E-01	3,4E-01	1,8E-02

ADP	kg Sb eq	1,1E-03	6,6E-04	6,6E-04
Emb. energy non-renew	MJ	5,6E+02	3,0E+02	2,2E+02
Emb. energy renew	MJ	2,2E+02	2,8E+02	5,0E+02
Bio-related impacts	**Unit**	**BioBuild Demonstrator**	**BioBuild Optimized**	**Timber**
LOcc-BR	euro	-1,3E-01	-5,5E-02	-7,0E+00
LOcc-HR	euro	-6,8E-01	-4,2E-01	-1,3E+01
LTrans-BR	euro	-4,8E-01	4,4E-02	1,4E+00
LTrans-HR	euro	-2,8E+00	-3,0E+00	1,4E+00
Soil loss	$kg \cdot m^{-2} \cdot a^{-1}$	6,2E+00	6,4E+00	1,0E+01

13 Appendix F: LCI results and list of non-characterized flows

Table F 1 Life Cycle Inventory (LCI) Data – ECK.

			ECK							
			BioBuild Demonstrator		BioBuild Optimized		Aluminium		GRP	
Substance	Compartment	Unit	Long term emissions excluded	Long term emissions included	Long term emissions excluded	Long term emissions included	Long term emissions excluded	Long term emissions included	Long term emissions excluded	Long term emissions included
Air	Raw	kg	x	x	2,61E+01	2,61E+01	x	x	x	x
Aluminium	Raw	kg	1,08E+00	1,08E+00	1,08E+00	1,08E+00	3,05E+00	3,05E+00	2,22E-01	2,22E-01
Anhydrite	Raw	kg	6,41E-06	6,41E-06	7,31E-06	7,31E-06	3,96E-05	3,96E-05	3,73E-05	3,73E-05
Baryte	Raw	kg	2,88E-02	2,88E-02	1,93E-02	1,93E-02	2,25E-02	2,25E-02	1,61E-02	1,61E-02
Basalt	Raw	kg	4,54E+00	4,54E+00	4,54E+00	4,54E+00	4,54E+00	4,54E+00	4,54E+00	4,54E+00
Biomass, feedstock	Raw	MJ	x	x	3,78E-11	3,78E-11	x	x	x	x
Borax	Raw	kg	1,53E-04	1,53E-04	1,53E-04	1,53E-04	1,53E-04	1,53E-04	1,88E-04	1,88E-04
Bromine	Raw	kg	2,08E-03	2,08E-03	2,20E-04	2,20E-04	3,58E-06	3,58E-06	2,76E-06	2,76E-06
Cadmium	Raw	kg	1,09E-05	1,09E-05	4,01E-06	4,01E-06	3,15E-06	3,15E-06	2,43E-06	2,43E-06
Calcite	Raw	kg	3,01E+00	3,01E+00	3,09E+00	3,09E+00	3,13E+00	3,13E+00	4,20E+00	4,20E+00
Calcium chloride	Raw	kg	x	x	5,70E-14	5,70E-14	x	x	x	x
Carbon dioxide, in air	Raw	kg	9,14E+01	9,14E+01	7,95E+01	7,95E+01	1,49E+00	1,49E+00	9,68E-01	9,68E-01
Carbon, in organic matter, in soil	Raw	kg	1,26E-02	1,26E-02	1,26E-02	1,26E-02	1,22E-02	1,22E-02	1,22E-02	1,22E-02
Chromium	Raw	kg	1,45E-01	1,45E-01	1,60E-01	1,60E-01	2,12E-01	2,12E-01	9,47E-03	9,47E-03
Chrysotile	Raw	kg	5,45E-06	5,45E-06	1,11E-05	1,11E-05	9,75E-06	9,75E-06	6,66E-05	6,66E-05
Cinnabar	Raw	kg	5,08E-07	5,08E-07	1,07E-06	1,07E-06	9,12E-07	9,12E-07	6,15E-06	6,15E-06
Clay	Raw	kg	1,01E+00	1,01E+00	9,84E-01	9,84E-01	9,50E-01	9,50E-01	3,46E+00	3,46E+00
Clay, bentonite	Raw	kg	9,62E-03	9,62E-03	5,85E-03	5,85E-03	9,04E-03	9,04E-03	4,40E-03	4,40E-03
Coal, brown	Raw	kg	5,37E+00	5,37E+00	2,34E+00	2,34E+00	5,10E+00	5,10E+00	3,75E+00	3,75E+00

Coal, hard	Raw	kg	7,28E+00	7,28E+00	5,58E+00	5,58E+00	8,90E+00	8,90E+00	3,57E+00	3,57E+00
Cobalt	Raw	kg	1,11E-07	1,11E-07	2,05E-05	2,05E-05	4,43E-08	4,43E-08	1,63E-05	1,63E-05
Colemanite	Raw	kg	1,32E-04	1,32E-04	7,42E-05	7,42E-05	8,90E-05	8,90E-05	2,40E+00	2,40E+00
Copper	Raw	kg	x	x	9,21E-08	9,21E-08	x	x	x	x
Copper, 0.99% in sulfide, Cu 0.36% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,59E-03	1,59E-03	1,40E-03	1,40E-03	2,22E-03	2,22E-03	1,15E-03	1,15E-03
Copper, 1.18% in sulfide, Cu 0.39% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	8,78E-03	8,78E-03	7,75E-03	7,75E-03	1,23E-02	1,23E-02	6,30E-03	6,30E-03
Copper, 1.42% in sulfide, Cu 0.81% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	2,33E-03	2,33E-03	2,06E-03	2,06E-03	3,26E-03	3,26E-03	1,67E-03	1,67E-03
Copper, 2.19% in sulfide, Cu 1.83% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,17E-02	1,17E-02	1,04E-02	1,04E-02	1,62E-02	1,62E-02	8,35E-03	8,35E-03
Diatomite	Raw	kg	4,75E-09	4,75E-09	1,49E-09	1,49E-09	1,22E-09	1,22E-09	8,72E-10	8,72E-10
Dolomite	Raw	kg	5,31E-01	5,31E-01	5,31E-01	5,31E-01	5,31E-01	5,31E-01	5,31E-01	5,31E-01
Energy, from coal	Raw	MJ	x	x	2,66E-01	2,66E-01	x	x	x	x
Energy, from coal, brown	Raw	MJ	x	x	1,06E-01	1,06E-01	x	x	x	x
Energy, from gas, natural	Raw	MJ	x	x	1,11E+00	1,11E+00	x	x	x	x
Energy, from oil	Raw	MJ	x	x	2,99E-01	2,99E-01	x	x	x	x
Energy, from peat	Raw	MJ	x	x	2,65E-04	2,65E-04	x	x	x	x
Energy, from uranium	Raw	MJ	x	x	1,40E-01	1,40E-01	x	x	x	x
Energy, from wood	Raw	MJ	x	x	5,02E-06	5,02E-06	x	x	x	x
Energy, geothermal, converted	Raw	MJ	x	x	2,35E-04	2,35E-04	x	x	x	x
Energy, gross calorific value, in biomass	Raw	MJ	3,00E+02	3,00E+02	4,48E+02	4,48E+02	2,15E+01	2,15E+01	1,38E+01	1,38E+01
Energy, gross calorific value, in biomass, primary forest	Raw	MJ	8,72E-01	8,72E-01	8,71E-01	8,71E-01	8,46E-01	8,46E-01	8,43E-01	8,43E-01
Energy, kinetic (in wind), converted	Raw	MJ	1,82E+00	1,82E+00	5,50E-01	5,50E-01	1,01E-01	1,01E-01	2,17E-01	2,17E-01
Energy, potential (in hydropower reservoir), converted	Raw	MJ	4,87E+01	4,87E+01	4,12E+01	4,12E+01	1,08E+02	1,08E+02	1,68E+01	1,68E+01
Energy, solar, converted	Raw	MJ	3,01E-02	3,01E-02	1,34E-02	1,34E-02	1,35E-02	1,35E-02	1,86E-02	1,86E-02
Feldspar	Raw	kg	6,42E-08	6,42E-08	4,45E-07	4,45E-07	7,27E-08	7,27E-08	5,93E-08	5,93E-08
Fluorine, 4.5% in apatite, 1% in crude ore, in ground	Raw	kg	1,69E-02	1,69E-02	2,30E-02	2,30E-02	5,55E-05	5,55E-05	6,07E-05	6,07E-05

Fluorine, 4.5% in apatite, 3% in crude ore, in ground	Raw	kg	7,89E-02	7,89E-02	5,04E-02	5,04E-02	9,99E-05	9,99E-05	1,01E-04	1,01E-04
Fluorspar	Raw	kg	4,60E-03	4,60E-03	5,75E-03	5,75E-03	7,56E-03	7,56E-03	2,57E-02	2,57E-02
Gallium	Raw	kg	8,48E-11	8,48E-11	3,31E-11	3,31E-11	3,61E-11	3,61E-11	5,01E-11	5,01E-11
Gas, mine, off-gas, process, coal mining/m3	Raw	m3	7,09E-02	7,09E-02	5,39E-02	5,39E-02	8,61E-02	8,61E-02	4,01E-02	4,01E-02
Gas, natural/m3	Raw	m3	9,65E+00	9,65E+00	6,35E+00	6,35E+00	7,03E+00	7,03E+00	6,10E+00	6,10E+00
Gold	Raw	kg	6,96E-08	6,96E-08	6,06E-08	6,06E-08	2,82E-08	2,82E-08	9,82E-08	9,82E-08
Gold, Au 1.1E-4%, Ag 4.2E-3%, in ore, in ground	Raw	kg	3,17E-08	3,17E-08	2,76E-08	2,76E-08	1,29E-08	1,29E-08	4,47E-08	4,47E-08
Gold, Au 1.3E-4%, Ag 4.6E-5%, in ore, in ground	Raw	kg	5,82E-08	5,82E-08	5,06E-08	5,06E-08	2,36E-08	2,36E-08	8,21E-08	8,21E-08
Gold, Au 2.1E-4%, Ag 2.1E-4%, in ore, in ground	Raw	kg	1,06E-07	1,06E-07	9,26E-08	9,26E-08	4,31E-08	4,31E-08	1,50E-07	1,50E-07
Gold, Au 4.3E-4%, in ore, in ground	Raw	kg	2,64E-08	2,64E-08	2,29E-08	2,29E-08	1,07E-08	1,07E-08	3,72E-08	3,72E-08
Gold, Au 4.9E-5%, in ore, in ground	Raw	kg	6,31E-08	6,31E-08	5,49E-08	5,49E-08	2,56E-08	2,56E-08	8,91E-08	8,91E-08
Gold, Au 6.7E-4%, in ore, in ground	Raw	kg	9,77E-08	9,77E-08	8,51E-08	8,51E-08	3,96E-08	3,96E-08	1,38E-07	1,38E-07
Gold, Au 7.1E-4%, in ore, in ground	Raw	kg	1,10E-07	1,10E-07	9,59E-08	9,59E-08	4,47E-08	4,47E-08	1,56E-07	1,56E-07
Gold, Au 9.7E-4%, Ag 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	6,60E-09	6,60E-09	5,75E-09	5,75E-09	2,68E-09	2,68E-09	9,32E-09	9,32E-09
Granite	Raw	kg	5,01E-08	5,01E-08	5,00E-08	5,00E-08	5,01E-08	5,01E-08	5,01E-08	5,01E-08
Gravel	Raw	kg	7,41E+00	7,41E+00	6,77E+00	6,77E+00	8,05E+00	8,05E+00	7,48E+00	7,48E+00
Gypsum	Raw	kg	4,05E-05	4,05E-05	4,32E-05	4,32E-05	2,04E-04	2,04E-04	3,38E-05	3,38E-05
Indium	Raw	kg	1,86E-07	1,86E-07	6,85E-08	6,85E-08	5,38E-08	5,38E-08	4,29E-08	4,29E-08
Iodine	Raw	kg	5,11E-04	5,11E-04	4,26E-05	4,26E-05	1,31E-06	1,31E-06	1,13E-06	1,13E-06
Iron	Raw	kg	5,61E-01	5,61E-01	3,37E-01	3,37E-01	5,21E-01	5,21E-01	2,24E-01	2,24E-01
Kaolinite	Raw	kg	2,12E-04	2,12E-04	1,98E-04	1,98E-04	1,50E-03	1,50E-03	7,75E-05	7,75E-05
Kieserite	Raw	kg	2,35E-06	2,35E-06	2,02E-06	2,02E-06	7,27E-05	7,27E-05	7,74E-07	7,74E-07
Lead	Raw	kg	1,17E-03	1,17E-03	6,06E-04	6,06E-04	9,42E-04	9,42E-04	2,16E-04	2,16E-04
Lithium	Raw	kg	8,02E-06	8,02E-06	4,96E-07	4,96E-07	4,37E-09	4,37E-09	5,29E-10	5,29E-10
Magnesite	Raw	kg	1,97E-02	1,97E-02	2,10E-02	2,10E-02	2,86E-02	2,86E-02	3,54E-03	3,54E-03
Magnesium	Raw	kg	3,80E-07	3,80E-07	2,53E-07	2,53E-07	2,48E-07	2,48E-07	3,22E-07	3,22E-07

Magnesium chloride	Raw	kg	x	x	1,17E-02	1,17E-02	x	x	x	x
Manganese	Raw	kg	1,92E-03	1,92E-03	1,39E-03	1,39E-03	3,60E-03	3,60E-03	1,45E-03	1,45E-03
Metamorphous rock, graphite containing	Raw	kg	1,06E-02	1,06E-02	1,87E-01	1,87E-01	6,93E-03	6,93E-03	5,71E-04	5,71E-04
Molybdenum	Raw	kg	4,35E-05	4,35E-05	4,09E-05	4,09E-05	8,63E-05	8,63E-05	4,15E-05	4,15E-05
Molybdenum, 0.010% in sulfide, Mo 8.2E-3% and Cu 1.83% in crude ore, in ground	Raw	kg	2,17E-04	2,17E-04	1,93E-04	1,93E-04	3,01E-04	3,01E-04	1,55E-04	1,55E-04
Molybdenum, 0.014% in sulfide, Mo 8.2E-3% and Cu 0.81% in crude ore, in ground	Raw	kg	3,06E-05	3,06E-05	2,70E-05	2,70E-05	4,29E-05	4,29E-05	2,20E-05	2,20E-05
Molybdenum, 0.022% in sulfide, Mo 8.2E-3% and Cu 0.36% in crude ore, in ground	Raw	kg	2,16E-05	2,16E-05	2,03E-05	2,03E-05	4,28E-05	4,28E-05	2,07E-05	2,07E-05
Molybdenum, 0.025% in sulfide, Mo 8.2E-3% and Cu 0.39% in crude ore, in ground	Raw	kg	1,12E-04	1,12E-04	9,90E-05	9,90E-05	1,57E-04	1,57E-04	8,05E-05	8,05E-05
Natural aggregate	Raw	kg	x	x	2,25E-04	2,25E-04	x	x	x	x
Nickel	Raw	kg	x	x	2,33E-08	2,33E-08	x	x	x	x
Nickel, 1.13% in sulfide, Ni 0.76% and Cu 0.76% in crude ore, in ground	Raw	kg	5,95E-04	5,95E-04	6,65E-04	6,65E-04	8,11E-05	8,11E-05	1,20E-04	1,20E-04
Nickel, 1.98% in silicates, 1.04% in crude ore, in ground	Raw	kg	3,35E-01	3,35E-01	3,66E-01	3,66E-01	4,86E-01	4,86E-01	2,28E-02	2,28E-02
Nitrogen, in air	Raw	kg	x	x	-3,43E-11	-3,43E-11	x	x	x	x
Occupation, arable	Raw	m2a	4,39E+01	4,39E+01	5,05E+00	5,05E+00	x	x	x	x
Occupation, arable, non-irrigated	Raw	m2a	6,28E+00	6,28E+00	7,91E+00	7,91E+00	1,19E-02	1,19E-02	4,89E-03	4,89E-03
Occupation, construction site	Raw	m2a	8,10E-02	8,10E-02	1,03E-01	1,03E-01	6,17E-03	6,17E-03	4,13E-03	4,13E-03
Occupation, dump site	Raw	m2a	6,89E-02	6,89E-02	5,82E-02	5,82E-02	8,51E-02	8,51E-02	3,37E-02	3,37E-02
Occupation, dump site, benthos	Raw	m2a	3,31E-03	3,31E-03	2,06E-03	2,06E-03	1,10E-03	1,10E-03	2,39E-04	2,39E-04
Occupation, forest, intensive	Raw	m2a	2,26E-01	2,26E-01	2,64E-01	2,64E-01	4,96E-01	4,96E-01	2,11E-01	2,11E-01
Occupation, forest, intensive, normal	Raw	m2a	1,74E+00	1,74E+00	1,46E+00	1,46E+00	1,86E+00	1,86E+00	1,29E+00	1,29E+00
Occupation, forest, intensive, short-cycle	Raw	m2a	2,19E-01	2,19E-01	2,19E-01	2,19E-01	2,12E-01	2,12E-01	2,11E-01	2,11E-01
Occupation, industrial area	Raw	m2a	4,66E-02	4,66E-02	4,10E-02	4,10E-02	4,08E-02	4,08E-02	1,47E-02	1,47E-02
Occupation, industrial area, benthos	Raw	m2a	3,09E-05	3,09E-05	1,90E-05	1,90E-05	1,74E-05	1,74E-05	1,32E-05	1,32E-05
Occupation, industrial area, built up	Raw	m2a	9,05E-02	9,05E-02	5,00E-02	5,00E-02	8,80E-02	8,80E-02	4,51E-02	4,51E-02
Occupation, industrial area, vegetation	Raw	m2a	1,23E-02	1,23E-02	1,15E-02	1,15E-02	2,75E-02	2,75E-02	1,48E-02	1,48E-02

Occupation, mineral extraction site	Raw	m2a	7,67E-02	7,67E-02	6,74E-02	6,74E-02	6,66E-02	6,66E-02	6,36E-02	6,36E-02
Occupation, permanent crop, fruit, intensive	Raw	m2a	3,13E-01	3,13E-01	3,14E-01	3,14E-01	3,09E-01	3,09E-01	3,09E-01	3,09E-01
Occupation, shrub land, sclerophyllous	Raw	m2a	4,57E-03	4,57E-03	4,26E-03	4,26E-03	5,94E-03	5,94E-03	3,66E-03	3,66E-03
Occupation, traffic area, rail embankment	Raw	m2a	5,88E-03	5,88E-03	5,90E-03	5,90E-03	4,66E-03	4,66E-03	7,53E-03	7,53E-03
Occupation, traffic area, rail network	Raw	m2a	6,50E-03	6,50E-03	6,53E-03	6,53E-03	5,16E-03	5,16E-03	8,33E-03	8,33E-03
Occupation, traffic area, road embankment	Raw	m2a	2,28E-02	2,28E-02	2,04E-02	2,04E-02	2,82E-02	2,82E-02	1,96E-02	1,96E-02
Occupation, traffic area, road network	Raw	m2a	4,08E-02	4,08E-02	3,47E-02	3,47E-02	5,24E-02	5,24E-02	1,95E-02	1,95E-02
Occupation, urban, discontinuously built	Raw	m2a	4,29E-02	4,29E-02	4,17E-03	4,17E-03	2,76E-04	2,76E-04	2,60E-04	2,60E-04
Occupation, water bodies, artificial	Raw	m2a	3,40E-02	3,40E-02	2,06E-02	2,06E-02	3,63E-02	3,63E-02	2,30E-02	2,30E-02
Occupation, water courses, artificial	Raw	m2a	5,01E-02	5,01E-02	4,19E-02	4,19E-02	1,04E-01	1,04E-01	1,31E-02	1,31E-02
Oil, crude	Raw	kg	5,08E+00	5,08E+00	3,51E+00	3,51E+00	9,68E+00	9,68E+00	5,44E+00	5,44E+00
Olivine	Raw	kg	3,88E-06	3,88E-06	4,38E-06	4,38E-06	1,66E-05	1,66E-05	1,60E-05	1,60E-05
Oxygen, in air	Raw	kg	x	x	-9,00E-05	-9,00E-05	x	x	x	x
Palladium	Raw	kg	x	x	1,17E-13	1,17E-13	x	x	x	x
Pd, Pd 2.0E-4%, Pt 4.8E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	1,83E-08	1,83E-08	8,65E-09	8,65E-09	1,56E-08	1,56E-08	1,08E-08	1,08E-08
Pd, Pd 7.3E-4%, Pt 2.5E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	4,41E-08	4,41E-08	2,08E-08	2,08E-08	3,75E-08	3,75E-08	2,58E-08	2,58E-08
Peat	Raw	kg	-1,60E-03	-1,60E-03	-1,05E-02	-1,05E-02	1,58E-02	1,58E-02	1,52E-03	1,52E-03
Phosphorus	Raw	kg	3,14E-01	3,14E-01	2,01E-01	2,01E-01	4,22E-04	4,22E-04	4,57E-04	4,57E-04
Phosphorus, 18% in apatite, 4% in crude ore, in ground	Raw	kg	6,74E-02	6,74E-02	9,18E-02	9,18E-02	2,22E-04	2,22E-04	2,43E-04	2,43E-04
Platinum	Raw	kg	x	x	1,40E-12	1,40E-12	x	x	x	x
Potassium chloride	Raw	kg	7,75E-01	7,75E-01	1,14E-01	1,14E-01	1,15E-02	1,15E-02	1,14E-02	1,14E-02
Pt, Pt 2.5E-4%, Pd 7.3E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	5,37E-10	5,37E-10	2,06E-10	2,06E-10	3,12E-10	3,12E-10	7,44E-11	7,44E-11
Pt, Pt 4.8E-4%, Pd 2.0E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	1,92E-09	1,92E-09	7,40E-10	7,40E-10	1,12E-09	1,12E-09	2,67E-10	2,67E-10
Pumice	Raw	kg	x	x	2,99E-09	2,99E-09	x	x	x	x
Rh, Rh 2.0E-5%, Pt 2.5E-4%, Pd 7.3E-4%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	3,06E-10	3,06E-10	8,33E-11	8,33E-11	3,02E-10	3,02E-10	4,70E-11	4,70E-11

Rh, Rh 2.4E-5%, Pt 4.8E-4%, Pd 2.0E-4%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	9,57E-10	9,57E-10	2,61E-10	2,61E-10	9,46E-10	9,46E-10	1,47E-10	1,47E-10
Rhenium	Raw	kg	1,78E-10	1,78E-10	1,17E-10	1,17E-10	1,49E-10	1,49E-10	7,11E-11	7,11E-11
Sand	Raw	kg	7,11E-04	7,11E-04	8,19E-04	8,19E-04	8,44E-04	8,44E-04	6,59E-04	6,59E-04
Shale	Raw	kg	1,82E-05	1,82E-05	2,07E-05	2,07E-05	1,12E-04	1,12E-04	1,06E-04	1,06E-04
Silver	Raw	kg	x	x	6,71E-12	6,71E-12	x	x	x	x
Silver, 0.007% in sulfide, Ag 0.004%, Pb, Zn, Cd, In, in ground	Raw	kg	7,09E-07	7,09E-07	6,12E-07	6,12E-07	2,88E-07	2,88E-07	9,93E-07	9,93E-07
Silver, 3.2ppm in sulfide, Ag 1.2ppm, Cu and Te, in crude ore, in ground	Raw	kg	5,06E-07	5,06E-07	4,37E-07	4,37E-07	2,05E-07	2,05E-07	7,08E-07	7,08E-07
Silver, Ag 2.1E-4%, Au 2.1E-4%, in ore, in ground	Raw	kg	4,67E-08	4,67E-08	4,03E-08	4,03E-08	1,89E-08	1,89E-08	6,54E-08	6,54E-08
Silver, Ag 4.2E-3%, Au 1.1E-4%, in ore, in ground	Raw	kg	1,07E-07	1,07E-07	9,21E-08	9,21E-08	4,32E-08	4,32E-08	1,49E-07	1,49E-07
Silver, Ag 4.6E-5%, Au 1.3E-4%, in ore, in ground	Raw	kg	1,05E-07	1,05E-07	9,03E-08	9,03E-08	4,24E-08	4,24E-08	1,46E-07	1,46E-07
Silver, Ag 9.7E-4%, Au 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	6,90E-08	6,90E-08	5,96E-08	5,96E-08	2,80E-08	2,80E-08	9,66E-08	9,66E-08
Slate	Raw	kg	x	x	5,02E-17	5,02E-17	x	x	x	x
Sodium chloride	Raw	kg	4,32E-01	4,32E-01	7,12E-01	7,12E-01	5,99E-01	5,99E-01	2,52E+00	2,52E+00
Sodium nitrate	Raw	kg	4,76E-10	4,76E-10	6,40E-10	6,40E-10	5,45E-08	5,45E-08	5,45E-10	5,45E-10
Sodium sulphate	Raw	kg	4,63E-04	4,63E-04	9,84E-04	9,84E-04	2,57E-04	2,57E-04	2,86E-04	2,86E-04
Soil	Raw	kg	1,80E+01	1,80E+01	1,06E+01	1,06E+01	x	x	x	x
Stibnite	Raw	kg	4,94E-10	4,94E-10	1,55E-10	1,55E-10	1,26E-10	1,26E-10	9,06E-11	9,06E-11
Sulfur	Raw	kg	1,04E-03	1,04E-03	1,26E-03	1,26E-03	1,63E-03	1,63E-03	5,05E-02	5,05E-02
Talc	Raw	kg	9,07E-05	9,07E-05	9,15E-05	9,15E-05	1,42E-04	1,42E-04	8,56E-05	8,56E-05
Tantalum	Raw	kg	5,58E-07	5,58E-07	4,83E-07	4,83E-07	2,26E-07	2,26E-07	7,83E-07	7,83E-07
Tellurium	Raw	kg	7,59E-08	7,59E-08	6,55E-08	6,55E-08	3,08E-08	3,08E-08	1,06E-07	1,06E-07
Tin	Raw	kg	3,80E-05	3,80E-05	4,01E-05	4,01E-05	2,66E-05	2,66E-05	5,32E-04	5,32E-04
TiO2, 54% in ilmenite, 2.6% in crude ore, in ground	Raw	kg	1,29E-02	1,29E-02	2,48E-01	2,48E-01	1,22E-02	1,22E-02	3,00E-01	3,00E-01
TiO2, 95% in rutile, 0.40% in crude ore, in ground	Raw	kg	6,59E-08	6,59E-08	5,59E-08	5,59E-08	5,30E-08	5,30E-08	5,69E-08	5,69E-08
Titanium	Raw	kg	x	x	2,06E-07	2,06E-07	x	x	x	x
Transformation, from arable	Raw	m2	4,25E-04	4,25E-04	1,28E+01	1,28E+01	1,19E-03	1,19E-03	8,93E-05	8,93E-05

Transformation, from arable, non-irrigated	Raw	m2	7,16E+00	7,16E+00	1,62E+01	1,62E+01	2,19E-02	2,19E-02	9,02E-03	9,02E-03
Transformation, from arable, non-irrigated, fallow	Raw	m2	1,31E-04	1,31E-04	1,31E-04	1,31E-04	3,71E-04	3,71E-04	2,70E-05	2,70E-05
Transformation, from dump site, inert material landfill	Raw	m2	4,16E-04	4,16E-04	4,07E-04	4,07E-04	4,09E-04	4,09E-04	4,09E-04	4,09E-04
Transformation, from dump site, residual material landfill	Raw	m2	3,98E-04	3,98E-04	3,37E-04	3,37E-04	5,13E-04	5,13E-04	7,84E-05	7,84E-05
Transformation, from dump site, sanitary landfill	Raw	m2	7,23E-06	7,23E-06	9,26E-06	9,26E-06	4,34E-06	4,34E-06	5,41E-06	5,41E-06
Transformation, from dump site, slag compartment	Raw	m2	9,10E-05	9,10E-05	9,70E-05	9,70E-05	2,62E-04	2,62E-04	2,38E-04	2,38E-04
Transformation, from forest	Raw	m2	1,07E-02	1,07E-02	8,22E-03	8,22E-03	9,31E-03	9,31E-03	6,61E-03	6,61E-03
Transformation, from forest, extensive	Raw	m2	2,01E-02	2,01E-02	1,81E-02	1,81E-02	2,29E-02	2,29E-02	1,63E-02	1,63E-02
Transformation, from forest, intensive, clear-cutting	Raw	m2	7,81E-03	7,81E-03	7,80E-03	7,80E-03	7,58E-03	7,58E-03	7,55E-03	7,55E-03
Transformation, from industrial area	Raw	m2	7,27E-05	7,27E-05	4,27E-05	4,27E-05	4,21E-05	4,21E-05	3,82E-05	3,82E-05
Transformation, from industrial area, benthos	Raw	m2	2,71E-07	2,71E-07	1,65E-07	1,65E-07	4,87E-08	4,87E-08	7,71E-08	7,71E-08
Transformation, from industrial area, built up	Raw	m2	2,40E-05	2,40E-05	3,28E-05	3,28E-05	7,62E-08	7,62E-08	8,35E-08	8,35E-08
Transformation, from industrial area, vegetation	Raw	m2	4,09E-05	4,09E-05	5,59E-05	5,59E-05	1,30E-07	1,30E-07	1,43E-07	1,43E-07
Transformation, from mineral extraction site	Raw	m2	5,35E-03	5,35E-03	5,13E-03	5,13E-03	5,81E-03	5,81E-03	4,28E-03	4,28E-03
Transformation, from pasture and meadow	Raw	m2	3,32E-03	3,32E-03	2,27E-03	2,27E-03	2,42E-03	2,42E-03	1,17E-03	1,17E-03
Transformation, from pasture and meadow, intensive	Raw	m2	8,27E-01	8,27E-01	1,07E-05	1,07E-05	1,78E-05	1,78E-05	7,36E-06	7,36E-06
Transformation, from sea and ocean	Raw	m2	3,32E-03	3,32E-03	2,06E-03	2,06E-03	1,10E-03	1,10E-03	2,66E-04	2,66E-04
Transformation, from shrub land, sclerophyllous	Raw	m2	2,58E-02	2,58E-02	3,46E-02	3,46E-02	1,80E-03	1,80E-03	8,07E-04	8,07E-04
Transformation, from tropical rain forest	Raw	m2	7,81E-03	7,81E-03	7,80E-03	7,80E-03	7,58E-03	7,58E-03	7,55E-03	7,55E-03
Transformation, from unknown	Raw	m2	3,72E-03	3,72E-03	3,32E-03	3,32E-03	4,61E-03	4,61E-03	2,44E-03	2,44E-03
Transformation, to arable	Raw	m2	1,06E-03	1,06E-03	1,28E+01	1,28E+01	1,34E-03	1,34E-03	3,95E-04	3,95E-04
Transformation, to arable, non-irrigated	Raw	m2	8,01E+00	8,01E+00	1,63E+01	1,63E+01	2,19E-02	2,19E-02	9,03E-03	9,03E-03
Transformation, to arable, non-irrigated, fallow	Raw	m2	1,45E-04	1,45E-04	1,45E-04	1,45E-04	4,03E-04	4,03E-04	4,18E-05	4,18E-05
Transformation, to dump site	Raw	m2	4,07E-04	4,07E-04	3,32E-04	3,32E-04	4,69E-04	4,69E-04	1,64E-04	1,64E-04
Transformation, to dump site, benthos	Raw	m2	3,31E-03	3,31E-03	2,06E-03	2,06E-03	1,10E-03	1,10E-03	2,39E-04	2,39E-04
Transformation, to dump site, inert material	Raw	m2	4,16E-04	4,16E-04	4,07E-04	4,07E-04	4,09E-04	4,09E-04	4,09E-04	4,09E-04

landfill										
Transformation, to dump site, residual material landfill	Raw	m2	3,98E-04	3,98E-04	3,37E-04	3,37E-04	5,13E-04	5,13E-04	7,85E-05	7,85E-05
Transformation, to dump site, sanitary landfill	Raw	m2	7,23E-06	7,23E-06	9,26E-06	9,26E-06	4,34E-06	4,34E-06	5,41E-06	5,41E-06
Transformation, to dump site, slag compartment	Raw	m2	9,10E-05	9,10E-05	9,70E-05	9,70E-05	2,62E-04	2,62E-04	2,38E-04	2,38E-04
Transformation, to forest	Raw	m2	1,16E-03	1,16E-03	1,11E-03	1,11E-03	1,67E-03	1,67E-03	8,52E-04	8,52E-04
Transformation, to forest, intensive	Raw	m2	1,50E-03	1,50E-03	1,76E-03	1,76E-03	3,30E-03	3,30E-03	1,41E-03	1,41E-03
Transformation, to forest, intensive, clear-cutting	Raw	m2	7,81E-03	7,81E-03	7,80E-03	7,80E-03	7,58E-03	7,58E-03	7,55E-03	7,55E-03
Transformation, to forest, intensive, normal	Raw	m2	1,39E-02	1,39E-02	1,17E-02	1,17E-02	1,48E-02	1,48E-02	1,04E-02	1,04E-02
Transformation, to forest, intensive, short-cycle	Raw	m2	7,81E-03	7,81E-03	7,80E-03	7,80E-03	7,58E-03	7,58E-03	7,55E-03	7,55E-03
Transformation, to heterogeneous, agricultural	Raw	m2	3,27E-04	3,27E-04	2,08E-04	2,08E-04	2,53E-04	2,53E-04	1,34E-04	1,34E-04
Transformation, to industrial area	Raw	m2	9,92E-04	9,92E-04	1,01E-03	1,01E-03	6,83E-04	6,83E-04	2,71E-04	2,71E-04
Transformation, to industrial area, benthos	Raw	m2	2,93E-06	2,93E-06	2,65E-06	2,65E-06	1,97E-06	1,97E-06	2,73E-05	2,73E-05
Transformation, to industrial area, built up	Raw	m2	9,18E-04	9,18E-04	9,13E-04	9,13E-04	1,62E-03	1,62E-03	7,42E-04	7,42E-04
Transformation, to industrial area, vegetation	Raw	m2	3,87E-04	3,87E-04	3,75E-04	3,75E-04	6,70E-04	6,70E-04	4,12E-04	4,12E-04
Transformation, to mineral extraction site	Raw	m2	1,19E-02	1,19E-02	9,38E-03	9,38E-03	1,15E-02	1,15E-02	7,03E-03	7,03E-03
Transformation, to pasture and meadow	Raw	m2	7,28E-04	7,28E-04	6,13E-04	6,13E-04	1,38E-05	1,38E-05	1,98E-05	1,98E-05
Transformation, to permanent crop, fruit, intensive	Raw	m2	4,41E-03	4,41E-03	4,42E-03	4,42E-03	4,36E-03	4,36E-03	4,35E-03	4,35E-03
Transformation, to sea and ocean	Raw	m2	2,71E-07	2,71E-07	1,65E-07	1,65E-07	4,87E-08	4,87E-08	7,71E-08	7,71E-08
Transformation, to shrub land, sclerophyllous	Raw	m2	9,12E-04	9,12E-04	8,51E-04	8,51E-04	1,19E-03	1,19E-03	7,32E-04	7,32E-04
Transformation, to traffic area, rail embankment	Raw	m2	1,37E-05	1,37E-05	1,37E-05	1,37E-05	1,09E-05	1,09E-05	1,75E-05	1,75E-05
Transformation, to traffic area, rail network	Raw	m2	1,50E-05	1,50E-05	1,51E-05	1,51E-05	1,19E-05	1,19E-05	1,93E-05	1,93E-05
Transformation, to traffic area, road embankment	Raw	m2	1,67E-04	1,67E-04	1,49E-04	1,49E-04	2,05E-04	2,05E-04	1,74E-04	1,74E-04
Transformation, to traffic area, road network	Raw	m2	6,84E-04	6,84E-04	6,07E-04	6,07E-04	8,10E-04	8,10E-04	4,35E-04	4,35E-04
Transformation, to unknown	Raw	m2	3,75E-03	3,75E-03	3,75E-03	3,75E-03	3,68E-03	3,68E-03	3,92E-03	3,92E-03
Transformation, to urban, discontinuously built	Raw	m2	8,54E-04	8,54E-04	8,32E-05	8,32E-05	5,49E-06	5,49E-06	5,17E-06	5,17E-06
Transformation, to water bodies, artificial	Raw	m2	2,79E-04	2,79E-04	1,92E-04	1,92E-04	2,98E-04	2,98E-04	1,95E-04	1,95E-04

Transformation, to water courses, artificial	Raw	m2	5,96E-04	5,96E-04	5,05E-04	5,05E-04	1,26E-03	1,26E-03	1,58E-04	1,58E-04
Ulexite	Raw	kg	3,60E-06	3,60E-06	1,24E-06	1,24E-06	3,19E-07	3,19E-07	8,22E-07	8,22E-07
Uranium	Raw	kg	2,68E-04	2,68E-04	1,49E-04	1,49E-04	3,33E-04	3,33E-04	1,90E-04	1,90E-04
Vermiculite	Raw	kg	5,88E-06	5,88E-06	1,17E-05	1,17E-05	4,19E-06	4,19E-06	1,08E-05	1,08E-05
Volume occupied, final repository for low-active radioactive waste	Raw	m3	5,40E-07	5,40E-07	2,89E-07	2,89E-07	5,10E-07	5,10E-07	3,53E-07	3,53E-07
Volume occupied, final repository for radioactive waste	Raw	m3	1,34E-07	1,34E-07	7,02E-08	7,02E-08	1,29E-07	1,29E-07	8,90E-08	8,90E-08
Volume occupied, reservoir	Raw	m3y	5,18E-01	5,18E-01	3,66E-01	3,66E-01	8,58E-01	8,58E-01	2,92E-01	2,92E-01
Volume occupied, underground deposit	Raw	m3	2,26E-05	2,26E-05	2,24E-05	2,24E-05	1,15E-04	1,15E-04	1,60E-05	1,60E-05
Water, cooling, unspecified natural origin/m3	Raw	m3	8,56E-01	8,56E-01	7,95E-01	7,95E-01	1,29E+00	1,29E+00	1,14E+00	1,14E+00
Water, lake	Raw	m3	6,21E-03	6,21E-03	1,23E-02	1,23E-02	4,43E-03	4,43E-03	1,14E-02	1,14E-02
Water, rain	Raw	m3	2,57E-01	2,57E-01	x	x	x	x	x	x
Water, river	Raw	m3	2,46E-01	2,46E-01	3,01E+00	3,01E+00	1,82E-01	1,82E-01	1,39E-01	1,39E-01
Water, salt, ocean	Raw	m3	2,30E-02	2,30E-02	1,24E-02	1,24E-02	2,06E-02	2,06E-02	1,73E-02	1,73E-02
Water, salt, sole	Raw	m3	8,37E-01	8,37E-01	9,32E-02	9,32E-02	4,74E-03	4,74E-03	2,33E-03	2,33E-03
Water, turbine use, unspecified natural origin	Raw	m3	4,45E+02	4,45E+02	3,88E+02	3,88E+02	9,81E+02	9,81E+02	1,25E+02	1,25E+02
Water, unspecified natural origin/kg	Raw	kg	x	x	1,41E+00	1,41E+00	x	x	x	x
Water, unspecified natural origin/m3	Raw	m3	1,53E-01	1,53E-01	1,47E-01	1,47E-01	9,58E-02	9,58E-02	2,00E-01	2,00E-01
Water, well, in ground	Raw	m3	8,17E-02	8,17E-02	8,59E-02	8,59E-02	7,30E-02	7,30E-02	7,54E-02	7,54E-02
Wood, hard, standing	Raw	m3	1,97E-04	1,97E-04	1,29E-04	1,29E-04	2,01E-04	2,01E-04	-2,21E-07	-2,21E-07
Wood, primary forest, standing	Raw	m3	8,09E-05	8,09E-05	8,08E-05	8,08E-05	7,85E-05	7,85E-05	7,82E-05	7,82E-05
Wood, soft, standing	Raw	m3	1,02E-03	1,02E-03	7,98E-04	7,98E-04	8,50E-04	8,50E-04	5,00E-04	5,00E-04
Wood, unspecified, standing/m3	Raw	m3	3,13E-07	3,13E-07	3,32E-07	3,32E-07	3,52E-07	3,52E-07	2,57E-06	2,57E-06
Zinc	Raw	kg	3,88E-02	3,88E-02	3,74E-02	3,74E-02	1,83E-01	1,83E-01	2,94E-02	2,94E-02
Zirconium	Raw	kg	7,60E-07	7,60E-07	6,61E-07	6,61E-07	3,08E-07	3,08E-07	1,07E-06	1,07E-06
1-Butanol	Air	kg	1,22E-07	1,22E-07	2,11E-08	2,11E-08	2,15E-10	2,15E-10	2,14E-10	2,14E-10
1-Pentanol	Air	kg	1,52E-07	1,52E-07	9,38E-09	9,38E-09	8,25E-11	8,25E-11	1,00E-11	1,00E-11

1-Pentene	Air	kg	1,15E-07	1,15E-07	7,09E-09	7,09E-09	6,24E-11	6,24E-11	7,56E-12	7,56E-12
1-Propanol	Air	kg	4,13E-07	4,13E-07	1,92E-07	1,92E-07	8,09E-10	8,09E-10	3,57E-10	3,57E-10
1,4-Butanediol	Air	kg	5,42E-07	5,42E-07	7,54E-08	7,54E-08	1,52E-09	1,52E-09	1,70E-09	1,70E-09
2-Aminopropanol	Air	kg	1,11E-07	1,11E-07	9,88E-09	9,88E-09	2,22E-12	2,22E-12	1,58E-12	1,58E-12
2-Butene, 2-methyl-	Air	kg	2,54E-11	2,54E-11	1,57E-12	1,57E-12	1,38E-14	1,38E-14	1,68E-15	1,68E-15
2-Methyl-1-propanol	Air	kg	2,60E-07	2,60E-07	3,05E-08	3,05E-08	3,28E-10	3,28E-10	2,02E-10	2,02E-10
2-Nitrobenzoic acid	Air	kg	2,70E-07	2,70E-07	2,39E-08	2,39E-08	3,30E-12	3,30E-12	3,04E-12	3,04E-12
2-Propanol	Air	kg	3,70E-06	3,70E-06	3,07E-06	3,07E-06	1,40E-06	1,40E-06	4,86E-06	4,86E-06
Acenaphthene	Air	kg	3,66E-11	3,66E-11	1,51E-11	1,51E-11	-1,61E-11	-1,61E-11	-4,73E-11	-4,73E-11
Acetaldehyde	Air	kg	5,70E-05	5,70E-05	2,68E-04	2,68E-04	4,01E-05	4,01E-05	2,05E-04	2,05E-04
Acetic acid	Air	kg	1,64E-03	1,64E-03	3,45E-03	3,45E-03	1,24E-03	1,24E-03	3,03E-03	3,03E-03
Acetone	Air	kg	4,46E-05	4,46E-05	4,13E-05	4,13E-05	3,95E-05	3,95E-05	4,15E-05	4,15E-05
Acetonitrile	Air	kg	8,49E-06	8,49E-06	8,48E-06	8,48E-06	8,24E-06	8,24E-06	8,21E-06	8,21E-06
Acidity, unspecified	Air	kg	x	x	7,81E-10	7,81E-10	x	x	x	x
Acrolein	Air	kg	2,96E-08	2,96E-08	2,83E-08	2,83E-08	1,11E-08	1,11E-08	5,32E-09	5,32E-09
Acrylic acid	Air	kg	8,92E-09	8,92E-09	7,76E-09	7,76E-09	3,61E-09	3,61E-09	1,26E-08	1,26E-08
Actinides, radioactive, unspecified	Air	Bq	6,38E-03	6,38E-03	4,23E-03	4,23E-03	1,11E-02	1,11E-02	3,56E-03	3,56E-03
Aerosols, radioactive, unspecified	Air	Bq	1,09E-01	1,09E-01	5,60E-02	5,60E-02	1,17E-01	1,17E-01	7,43E-02	7,43E-02
Aldehydes, unspecified	Air	kg	5,59E-06	5,59E-06	5,61E-06	5,61E-06	5,14E-06	5,14E-06	9,67E-06	9,67E-06
Aluminium	Air	kg	1,74E-03	1,96E-03	1,53E-03	1,65E-03	2,65E-03	2,85E-03	8,15E-04	9,57E-04
Ammonia	Air	kg	5,16E-01	5,16E-01	3,43E-02	3,43E-02	5,81E-03	5,81E-03	5,60E-03	5,60E-03
Ammonium carbonate	Air	kg	9,20E-08	9,20E-08	1,08E-07	1,08E-07	1,20E-07	1,20E-07	8,15E-08	8,15E-08
Ammonium, ion	Air	kg	x	x	6,99E-13	6,99E-13	x	x	x	x
Aniline	Air	kg	9,02E-07	9,02E-07	6,70E-08	6,70E-08	5,36E-09	5,36E-09	5,09E-09	5,09E-09
Anthracene	Air	kg	x	x	1,71E-12	1,71E-12	x	x	x	x
Anthranilic acid	Air	kg	1,31E-07	1,31E-07	1,87E-08	1,87E-08	2,46E-12	2,46E-12	2,27E-12	2,27E-12

Antimony	Air	kg	9,58E-07	9,77E-07	8,29E-07	8,39E-07	1,28E-06	1,30E-06	1,82E-04	1,82E-04
Antimony-124	Air	Bq	1,78E-06	1,78E-06	1,56E-06	1,56E-06	1,17E-06	1,17E-06	1,32E-06	1,32E-06
Antimony-125	Air	Bq	1,86E-05	1,86E-05	1,57E-05	1,57E-05	1,22E-05	1,22E-05	1,38E-05	1,38E-05
Argon-41	Air	Bq	4,28E+01	4,28E+01	1,45E+01	1,45E+01	1,50E+01	1,50E+01	2,19E+01	2,19E+01
Arsenic	Air	kg	1,07E-05	1,19E-05	1,02E-05	1,08E-05	1,58E-05	1,69E-05	1,15E-04	1,15E-04
Arsenic trioxide	Air	kg	x	x	8,37E-15	8,37E-15	x	x	x	x
Arsine	Air	kg	1,04E-13	1,04E-13	7,85E-13	7,85E-13	4,21E-14	4,21E-14	1,47E-13	1,47E-13
Barium	Air	kg	4,38E-06	5,65E-06	3,79E-06	4,47E-06	6,92E-06	8,12E-06	5,24E-06	6,06E-06
Barium-140	Air	Bq	1,21E-03	1,21E-03	1,02E-03	1,02E-03	7,94E-04	7,94E-04	8,97E-04	8,97E-04
Benzal chloride	Air	kg	6,48E-15	6,48E-15	6,17E-15	6,17E-15	2,93E-14	2,93E-14	4,88E-15	4,88E-15
Benzaldehyde	Air	kg	1,42E-08	1,42E-08	1,41E-08	1,41E-08	4,50E-09	4,50E-09	2,00E-09	2,00E-09
Benzene	Air	kg	7,61E-04	7,61E-04	7,36E-04	7,36E-04	4,26E-04	4,26E-04	2,49E-03	2,49E-03
Benzene, 1-methyl-2-nitro-	Air	kg	2,33E-07	2,33E-07	2,07E-08	2,07E-08	2,85E-12	2,85E-12	2,63E-12	2,63E-12
Benzene, 1,2-dichloro-	Air	kg	1,07E-06	1,07E-06	1,15E-07	1,15E-07	1,88E-10	1,88E-10	6,18E-11	6,18E-11
Benzene, 1,3,5-trimethyl-	Air	kg	x	x	4,16E-15	4,16E-15	x	x	x	x
Benzene, ethyl-	Air	kg	1,19E-05	1,19E-05	1,17E-05	1,17E-05	5,92E-06	5,92E-06	4,61E-06	4,61E-06
Benzene, hexachloro-	Air	kg	2,53E-08	2,53E-08	2,81E-08	2,81E-08	2,99E-08	2,99E-08	1,71E-08	1,71E-08
Benzene, pentachloro-	Air	kg	3,03E-08	3,03E-08	3,52E-08	3,52E-08	2,68E-08	2,68E-08	3,77E-08	3,77E-08
Benzo(a)anthracene	Air	kg	x	x	8,61E-13	8,61E-13	x	x	x	x
Benzo(a)pyrene	Air	kg	2,69E-06	2,69E-06	2,55E-06	2,55E-06	7,06E-06	7,06E-06	3,22E-07	3,22E-07
Benzo(b)fluoranthene	Air	kg	x	x	1,54E-12	1,54E-12	x	x	x	x
Benzo(g,h,i)perylene	Air	kg	x	x	7,68E-13	7,68E-13	x	x	x	x
Beryllium	Air	kg	3,39E-08	6,14E-08	3,63E-08	5,11E-08	4,38E-08	7,01E-08	3,32E-08	5,11E-08
Boron	Air	kg	1,54E-04	1,54E-04	7,87E-05	7,89E-05	1,69E-04	1,69E-04	1,02E-04	1,02E-04
Boron trifluoride	Air	kg	1,42E-15	1,42E-15	1,24E-15	1,24E-15	5,77E-16	5,77E-16	2,01E-15	2,01E-15
Bromine	Air	kg	2,96E-05	2,96E-05	2,67E-05	2,67E-05	1,99E-05	1,99E-05	1,13E-05	1,13E-05

Butadiene	Air	kg	1,34E-08	1,34E-08	6,13E-09	6,13E-09	9,71E-11	9,71E-11	1,50E-10	1,50E-10
Butane	Air	kg	5,34E-04	5,34E-04	3,26E-04	3,26E-04	3,12E-04	3,12E-04	1,56E-04	1,56E-04
Butene	Air	kg	1,85E-05	1,85E-05	1,63E-05	1,63E-05	5,89E-06	5,89E-06	2,06E-06	2,06E-06
Butyrolactone	Air	kg	5,35E-11	5,35E-11	4,65E-11	4,65E-11	2,17E-11	2,17E-11	7,53E-11	7,53E-11
Cadmium	Air	kg	3,13E-06	3,16E-06	3,05E-06	3,06E-06	3,67E-06	3,70E-06	3,83E-05	3,84E-05
Calcium	Air	kg	1,21E-03	1,28E-03	1,63E-03	1,67E-03	9,97E-05	1,67E-04	8,88E-05	1,35E-04
Carbon-14	Air	Bq	4,72E+02	4,72E+02	2,55E+02	2,55E+02	4,51E+02	4,51E+02	3,28E+02	3,28E+02
Carbon dioxide, biogenic	Air	kg	2,52E+01	2,52E+01	3,13E+01	3,13E+01	6,80E-01	6,80E-01	2,37E-01	2,37E-01
Carbon dioxide, fossil	Air	kg	6,15E+01	6,15E+01	5,04E+01	5,04E+01	6,52E+01	6,52E+01	5,22E+01	5,22E+01
Carbon dioxide, land transformation	Air	kg	1,22E-01	1,22E-01	7,40E-01	7,40E-01	1,18E-01	1,18E-01	1,17E-01	1,17E-01
Carbon disulfide	Air	kg	1,79E-04	1,79E-04	1,60E-04	1,60E-04	3,44E-04	3,44E-04	1,27E-04	1,27E-04
Carbon monoxide, biogenic	Air	kg	5,15E-01	5,15E-01	7,01E-01	7,01E-01	2,91E-03	2,91E-03	1,02E-03	1,02E-03
Carbon monoxide, fossil	Air	kg	1,31E-01	1,31E-01	1,17E-01	1,17E-01	2,90E-01	2,90E-01	5,80E-02	5,80E-02
Cerium-141	Air	Bq	2,93E-04	2,93E-04	2,48E-04	2,48E-04	1,92E-04	1,92E-04	2,18E-04	2,18E-04
Cesium-134	Air	Bq	1,40E-05	1,40E-05	5,31E-05	5,31E-05	9,21E-06	9,21E-06	1,04E-05	1,04E-05
Cesium-137	Air	Bq	2,49E-04	2,49E-04	2,95E-04	2,95E-04	1,63E-04	1,63E-04	1,85E-04	1,85E-04
Chloramine	Air	kg	7,51E-07	7,51E-07	5,81E-08	5,81E-08	2,94E-10	2,94E-10	3,85E-11	3,85E-11
Chloride	Air	kg	x	x	7,05E-09	7,05E-09	x	x	x	x
Chlorine	Air	kg	1,36E-04	1,39E-04	8,21E-05	8,36E-05	1,31E-05	1,57E-05	2,47E-03	2,47E-03
Chloroacetic acid	Air	kg	1,32E-06	1,32E-06	2,82E-07	2,82E-07	5,59E-09	5,59E-09	5,64E-09	5,64E-09
Chloroform	Air	kg	3,44E-06	3,44E-06	2,70E-07	2,70E-07	9,98E-09	9,98E-09	1,62E-08	1,62E-08
Chlorosilane, trimethyl-	Air	kg	2,24E-06	2,24E-06	2,24E-06	2,24E-06	2,24E-06	2,24E-06	2,24E-06	2,24E-06
Chlorosulfonic acid	Air	kg	1,80E-07	1,80E-07	2,86E-08	2,86E-08	1,59E-11	1,59E-11	1,36E-11	1,36E-11
Chromium	Air	kg	5,02E-04	5,02E-04	5,53E-04	5,53E-04	7,30E-04	7,30E-04	4,85E-05	4,85E-05
Chromium-51	Air	Bq	1,88E-05	1,88E-05	1,59E-05	1,59E-05	1,23E-05	1,23E-05	1,39E-05	1,39E-05
Chromium VI	Air	kg	1,25E-05	1,27E-05	1,38E-05	1,39E-05	1,82E-05	1,84E-05	8,62E-07	9,53E-07

Chromium, ion	Air	kg	x	x	2,46E-12	2,46E-12	x	x	x	x
Chrysene	Air	kg	x	x	2,12E-12	2,12E-12	x	x	x	x
Cobalt	Air	kg	7,84E-06	8,01E-06	8,23E-06	8,33E-06	9,91E-06	1,01E-05	1,52E-06	1,63E-06
Cobalt-58	Air	Bq	2,61E-05	2,61E-05	2,24E-05	2,24E-05	1,72E-05	1,72E-05	1,94E-05	1,94E-05
Cobalt-60	Air	Bq	2,31E-04	2,31E-04	2,02E-04	2,02E-04	1,52E-04	1,52E-04	1,72E-04	1,72E-04
Copper	Air	kg	6,14E-05	6,33E-05	6,04E-05	6,14E-05	9,10E-05	9,27E-05	2,73E-05	2,85E-05
Cumene	Air	kg	3,99E-04	3,99E-04	4,01E-04	4,01E-04	3,93E-04	3,93E-04	9,69E-04	9,69E-04
Cyanide	Air	kg	5,42E-05	5,42E-05	7,86E-05	7,86E-05	3,04E-05	3,04E-05	4,27E-05	4,27E-05
Cyanoacetic acid	Air	kg	1,47E-07	1,47E-07	2,35E-08	2,35E-08	1,30E-11	1,30E-11	1,11E-11	1,11E-11
Cyclohexane	Air	kg	x	x	3,64E-11	3,64E-11	x	x	x	x
Dibenz(a,h)anthracene	Air	kg	x	x	4,79E-13	4,79E-13	x	x	x	x
Diethanolamine	Air	kg	x	x	1,14E-17	1,14E-17	x	x	x	x
Diethylamine	Air	kg	5,78E-07	5,78E-07	3,18E-08	3,18E-08	2,38E-09	2,38E-09	2,26E-09	2,26E-09
Dimethyl malonate	Air	kg	1,85E-07	1,85E-07	2,94E-08	2,94E-08	1,63E-11	1,63E-11	1,40E-11	1,40E-11
Dinitrogen monoxide	Air	kg	4,34E-02	4,34E-02	7,08E-03	7,08E-03	8,75E-04	8,75E-04	3,77E-02	3,77E-02
Dioxin, 2,3,7,8 Tetrachlorodibenzo-p-	Air	kg	1,14E-10	1,14E-10	1,33E-10	1,33E-10	1,05E-10	1,05E-10	1,23E-10	1,23E-10
Dipropylamine	Air	kg	2,82E-07	2,82E-07	1,47E-08	1,47E-08	1,52E-09	1,52E-09	1,44E-09	1,44E-09
Ethane	Air	kg	1,73E-03	1,73E-03	1,12E-03	1,12E-03	8,22E-04	8,22E-04	8,88E-04	8,88E-04
Ethane, 1,1-difluoro-, HFC-152a	Air	kg	1,10E-08	1,10E-08	4,30E-09	4,30E-09	4,69E-09	4,69E-09	6,51E-09	6,51E-09
Ethane, 1,1,1-trichloro-, HCFC-140	Air	kg	6,16E-11	6,16E-11	4,09E-11	4,09E-11	1,07E-10	1,07E-10	3,44E-11	3,44E-11
Ethane, 1,1,1,2-tetrafluoro-, HFC-134a	Air	kg	2,32E-06	2,32E-06	1,99E-06	1,99E-06	2,01E-06	2,01E-06	1,48E-06	1,48E-06
Ethane, 1,1,2-trichloro-1,2,2-trifluoro-, CFC-113	Air	kg	4,23E-10	4,23E-10	3,68E-10	3,68E-10	1,72E-10	1,72E-10	5,97E-10	5,97E-10
Ethane, 1,2-dichloro-	Air	kg	4,28E-05	4,28E-05	4,59E-05	4,59E-05	2,20E-06	2,20E-06	2,81E-06	2,81E-06
Ethane, 1,2-dichloro-1,1,2,2-tetrafluoro-, CFC-114	Air	kg	2,07E-07	2,07E-07	1,19E-07	1,19E-07	1,80E-07	1,80E-07	9,77E-08	9,77E-08
Ethane, hexafluoro-, HFC-116	Air	kg	2,30E-05	2,30E-05	2,30E-05	2,30E-05	7,03E-05	7,03E-05	1,02E-06	1,02E-06
Ethanol	Air	kg	1,45E-05	1,45E-05	3,39E-05	3,39E-05	1,19E-05	1,19E-05	7,99E-06	7,99E-06

Ethene	Air	kg	4,02E-04	4,02E-04	3,54E-04	3,54E-04	4,16E-04	4,16E-04	3,82E-04	3,82E-04
Ethene, chloro-	Air	kg	1,93E-05	1,93E-05	2,20E-05	2,20E-05	1,43E-06	1,43E-06	8,81E-07	8,81E-07
Ethene, tetrachloro-	Air	kg	3,30E-06	3,30E-06	3,30E-06	3,30E-06	6,19E-05	6,19E-05	3,30E-06	3,30E-06
Ethyl acetate	Air	kg	1,63E-05	1,63E-05	1,58E-05	1,58E-05	6,50E-06	6,50E-06	2,41E-05	2,41E-05
Ethyl cellulose	Air	kg	3,24E-08	3,24E-08	2,82E-08	2,82E-08	1,31E-08	1,31E-08	4,57E-08	4,57E-08
Ethylamine	Air	kg	4,21E-07	4,21E-07	1,68E-07	1,68E-07	3,81E-10	3,81E-10	1,40E-10	1,40E-10
Ethylene diamine	Air	kg	4,19E-07	4,19E-07	8,70E-09	8,70E-09	2,49E-09	2,49E-09	2,86E-10	2,86E-10
Ethylene oxide	Air	kg	1,23E-06	1,23E-06	1,04E-06	1,04E-06	9,19E-07	9,19E-07	1,14E-05	1,14E-05
Ethyne	Air	kg	1,79E-04	1,79E-04	1,21E-04	1,21E-04	1,63E-04	1,63E-04	3,15E-05	3,15E-05
Fluoranthene	Air	kg	x	x	5,57E-12	5,57E-12	x	x	x	x
Fluorene	Air	kg	x	x	1,77E-11	1,77E-11	x	x	x	x
Fluoride	Air	kg	x	x	9,91E-09	9,91E-09	x	x	x	x
Fluorine	Air	kg	1,25E-05	2,58E-05	1,59E-05	2,31E-05	3,84E-06	1,65E-05	8,04E-07	9,45E-06
Fluosilicic acid	Air	kg	2,69E-05	2,69E-05	2,68E-05	2,68E-05	8,22E-05	8,22E-05	1,14E-06	1,14E-06
Formaldehyde	Air	kg	8,49E-04	8,49E-04	8,40E-04	8,40E-04	8,24E-04	8,24E-04	7,87E-04	7,87E-04
Formamide	Air	kg	2,77E-07	2,77E-07	1,72E-08	1,72E-08	1,51E-10	1,51E-10	1,83E-11	1,83E-11
Formic acid	Air	kg	5,69E-05	5,69E-05	5,68E-05	5,68E-05	5,51E-05	5,51E-05	5,50E-05	5,50E-05
Furan	Air	kg	1,61E-05	1,61E-05	1,61E-05	1,61E-05	1,56E-05	1,56E-05	1,56E-05	1,56E-05
Heat, waste	Air	MJ	1,31E+03	1,31E+03	1,03E+03	1,03E+03	9,62E+02	9,62E+02	7,28E+02	7,28E+02
Helium	Air	kg	1,74E-05	1,74E-05	9,61E-06	9,61E-06	1,47E-05	1,47E-05	5,11E-06	5,11E-06
Heptane	Air	kg	5,97E-05	5,97E-05	3,72E-05	3,72E-05	5,79E-05	5,79E-05	2,08E-05	2,08E-05
Hexamethylene diamine	Air	kg	x	x	2,41E-14	2,41E-14	x	x	x	x
Hexane	Air	kg	5,45E-04	5,45E-04	4,24E-04	4,24E-04	4,27E-04	4,27E-04	3,16E-04	3,16E-04
Hydrocarbons, aliphatic, alkanes, cyclic	Air	kg	4,60E-06	4,60E-06	4,71E-06	4,71E-06	4,23E-06	4,23E-06	3,15E-05	3,15E-05
Hydrocarbons, aliphatic, alkanes, unspecified	Air	kg	6,85E-04	6,85E-04	1,72E-03	1,72E-03	7,94E-04	7,94E-04	9,58E-04	9,58E-04
Hydrocarbons, aliphatic, unsaturated	Air	kg	6,32E-04	6,32E-04	8,25E-04	8,25E-04	3,98E-05	3,98E-05	1,58E-05	1,58E-05
Hydrocarbons, aromatic	Air	kg	1,47E-04	1,47E-04	1,46E-04	1,46E-04	3,15E-04	3,15E-04	6,71E-04	6,71E-04

Hydrocarbons, chlorinated	Air	kg	6,47E-05	6,47E-05	7,78E-05	7,78E-05	1,22E-04	1,22E-04	1,92E-05	1,92E-05
Hydrogen	Air	kg	5,87E-04	5,87E-04	8,59E-04	8,59E-04	8,31E-04	8,31E-04	1,78E-03	1,78E-03
Hydrogen-3, Tritium	Air	Bq	2,58E+03	2,58E+03	1,32E+03	1,32E+03	2,58E+03	2,58E+03	1,75E+03	1,75E+03
Hydrogen bromide	Air	kg	x	x	7,06E-11	7,06E-11	x	x	x	x
Hydrogen chloride	Air	kg	1,82E-03	1,82E-03	1,45E-03	1,45E-03	2,67E-03	2,67E-03	2,02E-03	2,02E-03
Hydrogen cyanide	Air	kg	x	x	1,10E-09	1,10E-09	x	x	x	x
Hydrogen fluoride	Air	kg	8,48E-04	8,48E-04	6,97E-04	6,97E-04	1,85E-03	1,85E-03	3,49E-04	3,49E-04
Hydrogen iodide	Air	kg	x	x	7,60E-14	7,60E-14	x	x	x	x
Hydrogen peroxide	Air	kg	2,40E-08	2,40E-08	2,09E-08	2,09E-08	9,73E-09	9,73E-09	3,38E-08	3,38E-08
Hydrogen sulfide	Air	kg	3,03E-04	3,03E-04	2,14E-04	2,14E-04	2,06E-04	2,06E-04	1,96E-04	1,96E-04
Indeno(1,2,3-cd)pyrene	Air	kg	x	x	5,72E-13	5,72E-13	x	x	x	x
Iodine	Air	kg	8,87E-06	8,87E-06	4,65E-06	4,65E-06	9,94E-06	9,94E-06	5,63E-06	5,63E-06
Iodine-129	Air	Bq	4,52E-01	4,52E-01	2,33E-01	2,33E-01	4,43E-01	4,43E-01	3,12E-01	3,12E-01
Iodine-131	Air	Bq	1,68E+01	1,68E+01	5,41E+00	5,41E+00	5,79E+00	5,79E+00	8,52E+00	8,52E+00
Iodine-133	Air	Bq	2,06E-03	2,06E-03	1,58E-03	1,58E-03	1,49E-03	1,49E-03	1,38E-03	1,38E-03
Iodine-135	Air	Bq	1,33E-03	1,33E-03	7,64E-04	7,64E-04	1,17E-03	1,17E-03	6,68E-04	6,68E-04
Iron	Air	kg	7,91E-05	3,16E-04	8,67E-05	2,14E-04	1,06E-04	3,32E-04	8,14E-05	2,36E-04
Isocyanic acid	Air	kg	1,94E-03	1,94E-03	2,59E-03	2,59E-03	2,00E-07	2,00E-07	1,70E-07	1,70E-07
Isoprene	Air	kg	7,49E-07	7,49E-07	7,48E-07	7,48E-07	7,26E-07	7,26E-07	7,24E-07	7,24E-07
Isopropylamine	Air	kg	2,22E-07	2,22E-07	5,84E-08	5,84E-08	9,78E-11	9,78E-11	4,23E-11	4,23E-11
Krypton-85	Air	Bq	1,35E+02	1,35E+02	4,49E+01	4,49E+01	4,73E+01	4,73E+01	6,91E+01	6,91E+01
Krypton-85m	Air	Bq	1,95E+01	1,95E+01	5,56E+03	5,56E+03	1,21E+01	1,21E+01	1,40E+01	1,40E+01
Krypton-87	Air	Bq	5,47E+00	5,47E+00	3,79E+00	3,79E+00	3,09E+00	3,09E+00	3,68E+00	3,68E+00
Krypton-88	Air	Bq	6,36E+00	6,36E+00	4,73E+00	4,73E+00	3,79E+00	3,79E+00	4,43E+00	4,43E+00
Krypton-89	Air	Bq	2,28E+00	2,28E+00	1,88E+00	1,88E+00	1,47E+00	1,47E+00	1,67E+00	1,67E+00
Lactic acid	Air	kg	2,21E-07	2,21E-07	1,15E-08	1,15E-08	1,19E-09	1,19E-09	1,13E-09	1,13E-09

Lanthanum-140	Air	Bq	1,03E-04	1,03E-04	8,75E-05	8,75E-05	6,78E-05	6,78E-05	7,67E-05	7,67E-05
Lead	Air	kg	5,01E-05	5,20E-05	4,99E-05	5,09E-05	7,73E-05	7,92E-05	2,18E-05	2,31E-05
Lead-210	Air	Bq	5,47E+00	5,47E+00	3,87E+00	3,87E+00	4,16E+00	4,16E+00	2,40E+00	2,40E+00
Lead compounds	Air	kg	x	x	4,91E-15	4,91E-15	x	x	x	x
m-Xylene	Air	kg	2,32E-05	2,32E-05	3,11E-05	3,11E-05	9,33E-08	9,33E-08	-3,83E-08	-3,83E-08
Magnesium	Air	kg	1,29E-04	1,51E-04	1,62E-04	1,74E-04	7,97E-05	1,00E-04	6,69E-05	8,11E-05
Manganese	Air	kg	3,96E-05	4,45E-05	5,02E-05	5,29E-05	8,59E-06	1,33E-05	3,28E-06	6,47E-06
Manganese-54	Air	Bq	9,61E-06	9,61E-06	8,14E-06	8,14E-06	6,31E-06	6,31E-06	7,14E-06	7,14E-06
Mercury	Air	kg	2,68E-06	2,70E-06	2,67E-06	2,68E-06	3,97E-06	3,99E-06	2,49E-06	2,50E-06
Methane	Air	kg	x	x	5,46E-04	5,46E-04	x	x	x	x
Methane, biogenic	Air	kg	2,62E-02	2,62E-02	2,98E-02	2,98E-02	1,71E-03	1,71E-03	5,96E-04	5,96E-04
Methane, bromo-, Halon 1001	Air	kg	1,48E-15	1,48E-15	1,41E-15	1,41E-15	6,71E-15	6,71E-15	1,12E-15	1,12E-15
Methane, bromochlorodifluoro-, Halon 1211	Air	kg	4,40E-07	4,40E-07	2,66E-07	2,66E-07	1,52E-07	1,52E-07	2,19E-07	2,19E-07
Methane, bromotrifluoro-, Halon 1301	Air	kg	1,71E-07	1,71E-07	1,03E-07	1,03E-07	1,60E-07	1,60E-07	5,61E-08	5,61E-08
Methane, chlorodifluoro-, HCFC-22	Air	kg	1,61E-06	1,61E-06	9,56E-07	9,56E-07	4,46E-07	4,46E-07	6,72E-07	6,72E-07
Methane, chlorotrifluoro-, CFC-13	Air	kg	x	x	2,44E-10	2,44E-10	x	x	x	x
Methane, dichloro-, HCC-30	Air	kg	7,79E-07	7,79E-07	7,45E-08	7,45E-08	2,84E-09	2,84E-09	1,72E-09	1,72E-09
Methane, dichlorodifluoro-, CFC-12	Air	kg	1,47E-06	1,47E-06	1,77E-06	1,77E-06	2,28E-08	2,28E-08	2,08E-08	2,08E-08
Methane, dichlorofluoro-, HCFC-21	Air	kg	2,92E-12	2,92E-12	2,67E-12	2,67E-12	1,19E-12	1,19E-12	4,03E-12	4,03E-12
Methane, fossil	Air	kg	1,12E-01	1,12E-01	8,49E-02	8,49E-02	1,81E-01	1,81E-01	1,21E-01	1,21E-01
Methane, monochloro-, R-40	Air	kg	2,95E-08	2,95E-08	1,51E-06	1,51E-06	3,07E-08	3,07E-08	2,00E-07	2,00E-07
Methane, tetrachloro-, CFC-10	Air	kg	3,98E-07	3,98E-07	2,17E-07	2,17E-07	3,41E-08	3,41E-08	2,86E-06	2,86E-06
Methane, tetrafluoro-, CFC-14	Air	kg	2,07E-04	2,07E-04	2,06E-04	2,06E-04	6,33E-04	6,33E-04	8,78E-06	8,78E-06
Methane, trichlorofluoro-, CFC-11	Air	kg	4,75E-12	4,75E-12	1,82E-09	1,82E-09	1,94E-12	1,94E-12	6,54E-12	6,54E-12
Methane, trifluoro-, HFC-23	Air	kg	9,30E-10	9,30E-10	8,50E-10	8,50E-10	3,80E-10	3,80E-10	1,28E-09	1,28E-09
Methanesulfonic acid	Air	kg	1,49E-07	1,49E-07	2,37E-08	2,37E-08	1,31E-11	1,31E-11	1,13E-11	1,13E-11

Methanol	Air	kg	9,63E-04	9,63E-04	1,58E-03	1,58E-03	7,63E-04	7,63E-04	1,51E-03	1,51E-03
Methyl acetate	Air	kg	6,25E-08	6,25E-08	5,55E-09	5,55E-09	7,64E-13	7,64E-13	7,04E-13	7,04E-13
Methyl acrylate	Air	kg	1,01E-08	1,01E-08	8,81E-09	8,81E-09	4,10E-09	4,10E-09	1,43E-08	1,43E-08
Methyl amine	Air	kg	5,01E-08	5,01E-08	1,26E-08	1,26E-08	8,33E-10	8,33E-10	8,49E-10	8,49E-10
Methyl borate	Air	kg	6,70E-08	6,70E-08	4,43E-09	4,43E-09	3,07E-11	3,07E-11	3,84E-12	3,84E-12
Methyl ethyl ketone	Air	kg	1,60E-05	1,60E-05	1,39E-05	1,39E-05	6,50E-06	6,50E-06	2,26E-05	2,26E-05
Methyl formate	Air	kg	7,34E-08	7,34E-08	4,57E-09	4,57E-09	5,58E-11	5,58E-11	6,02E-11	6,02E-11
Methyl lactate	Air	kg	2,42E-07	2,42E-07	1,26E-08	1,26E-08	1,31E-09	1,31E-09	1,24E-09	1,24E-09
Molybdenum	Air	kg	7,49E-07	1,13E-06	6,95E-07	8,99E-07	6,55E-07	1,02E-06	5,13E-07	7,60E-07
Monoethanolamine	Air	kg	7,00E-05	7,00E-05	6,54E-05	6,54E-05	6,49E-05	6,49E-05	6,49E-05	6,49E-05
Naphthalene	Air	kg	x	x	1,80E-10	1,80E-10	x	x	x	x
Nickel	Air	kg	4,39E-05	4,43E-05	4,39E-05	4,41E-05	4,59E-05	4,63E-05	4,94E-05	4,97E-05
Niobium-95	Air	Bq	1,14E-06	1,14E-06	9,66E-07	9,66E-07	7,49E-07	7,49E-07	8,48E-07	8,48E-07
Nitrate	Air	kg	7,16E-07	2,59E-06	4,07E-07	1,41E-06	7,24E-07	2,51E-06	4,47E-07	1,67E-06
Nitric oxide	Air	kg	x	x	5,28E-13	5,28E-13	x	x	x	x
Nitrobenzene	Air	kg	2,10E-06	2,10E-06	1,05E-07	1,05E-07	7,17E-09	7,17E-09	6,81E-09	6,81E-09
Nitrogen	Air	kg	x	x	2,49E-04	2,49E-04	x	x	x	x
Nitrogen oxides	Air	kg	1,74E-01	1,74E-01	1,16E-01	1,16E-01	1,12E-01	1,12E-01	8,97E-02	8,97E-02
NMVOC, non-methane volatile organic compounds, unspecified origin	Air	kg	2,78E-02	2,78E-02	1,71E-02	1,71E-02	4,93E-02	4,93E-02	3,35E-02	3,35E-02
Noble gases, radioactive, unspecified	Air	Bq	4,34E+06	4,34E+06	2,23E+06	2,23E+06	4,26E+06	4,26E+06	3,00E+06	3,00E+06
Octane	Air	kg	x	x	9,49E-09	9,49E-09	x	x	x	x
Oxygen	Air	kg	x	x	1,57E-05	1,57E-05	x	x	x	x
Ozone	Air	kg	1,19E-04	1,19E-04	1,08E-04	1,08E-04	2,09E-04	2,09E-04	4,07E-05	4,07E-05
PAH, polycyclic aromatic hydrocarbons	Air	kg	8,29E-05	8,29E-05	7,85E-05	7,85E-05	2,24E-04	2,24E-04	4,40E-06	4,40E-06
Palladium	Air	kg	x	x	1,58E-18	1,58E-18	x	x	x	x
Particulates, < 10 um	Air	kg	x	x	4,38E-07	4,38E-07	x	x	x	x

Particulates, < 2.5 um	Air	kg	4,04E-02	4,06E-02	3,65E-02	3,66E-02	3,36E-02	3,38E-02	1,59E-02	1,60E-02
Particulates, > 10 um	Air	kg	1,19E-01	1,19E-01	1,31E-01	1,31E-01	8,03E-02	8,07E-02	5,21E-02	5,24E-02
Particulates, > 2.5 um, and < 10um	Air	kg	4,45E-02	4,48E-02	4,39E-02	4,40E-02	5,77E-02	5,80E-02	3,84E-02	3,86E-02
Particulates, unspecified	Air	kg	x	x	x	x	x	x	x	x
Pentane	Air	kg	6,73E-04	6,73E-04	4,12E-04	4,12E-04	4,07E-04	4,07E-04	2,10E-04	2,10E-04
Phenanthrene	Air	kg	x	x	5,65E-11	5,65E-11	x	x	x	x
Phenol	Air	kg	6,97E-04	6,97E-04	6,98E-04	6,98E-04	6,92E-04	6,92E-04	1,10E-03	1,10E-03
Phenol, 2,4-dichloro-	Air	kg	1,89E-07	1,89E-07	4,13E-08	4,13E-08	7,95E-10	7,95E-10	7,92E-10	7,92E-10
Phenol, pentachloro-	Air	kg	9,93E-08	9,93E-08	4,04E-08	4,04E-08	4,76E-08	4,76E-08	6,74E-08	6,74E-08
Phosphine	Air	kg	7,71E-12	7,71E-12	6,71E-12	6,71E-12	3,12E-12	3,12E-12	1,09E-11	1,09E-11
Phosphorus	Air	kg	6,06E-05	6,10E-05	8,24E-05	8,26E-05	3,08E-06	3,43E-06	1,32E-06	1,56E-06
Platinum	Air	kg	5,49E-12	5,49E-12	2,34E-12	2,34E-12	9,58E-13	9,58E-13	1,39E-12	1,39E-12
Plutonium-238	Air	Bq	6,17E-08	6,17E-08	3,17E-08	3,17E-08	6,05E-08	6,05E-08	4,26E-08	4,26E-08
Plutonium-alpha	Air	Bq	1,41E-07	1,41E-07	8,81E-08	8,81E-08	1,39E-07	1,39E-07	9,76E-08	9,76E-08
Polonium-210	Air	Bq	8,05E+00	8,05E+00	5,68E+00	5,68E+00	7,45E+00	7,45E+00	4,27E+00	4,27E+00
Polychlorinated biphenyls	Air	kg	1,82E-08	1,82E-08	1,81E-08	1,81E-08	2,51E-08	2,51E-08	3,61E-09	3,61E-09
Potassium	Air	kg	4,59E-03	4,63E-03	6,16E-03	6,18E-03	5,08E-05	8,64E-05	1,65E-05	4,08E-05
Potassium-40	Air	Bq	7,62E-01	7,62E-01	5,47E-01	5,47E-01	1,03E+00	1,03E+00	5,39E-01	5,39E-01
Propanal	Air	kg	6,69E-07	6,69E-07	1,35E-07	1,35E-07	6,84E-09	6,84E-09	3,93E-09	3,93E-09
Propane	Air	kg	8,40E-04	8,40E-04	5,49E-04	5,49E-04	5,01E-04	5,01E-04	3,87E-04	3,87E-04
Propene	Air	kg	3,17E-04	3,17E-04	2,95E-04	2,95E-04	2,84E-04	2,84E-04	1,89E-03	1,89E-03
Propionic acid	Air	kg	5,81E-06	5,81E-06	3,07E-06	3,07E-06	8,05E-07	8,05E-07	1,41E-06	1,41E-06
Propylamine	Air	kg	1,19E-08	1,19E-08	5,43E-09	5,43E-09	4,78E-11	4,78E-11	5,79E-12	5,79E-12
Propylene oxide	Air	kg	4,69E-06	4,69E-06	2,09E-07	2,09E-07	1,69E-07	1,69E-07	1,88E-03	1,88E-03
Protactinium-234	Air	Bq	6,48E-02	6,48E-02	3,49E-02	3,49E-02	6,21E-02	6,21E-02	4,21E-02	4,21E-02
Radioactive species, other beta emitters	Air	Bq	7,62E+00	7,62E+00	2,39E+00	2,39E+00	1,95E+00	1,95E+00	1,40E+00	1,40E+00

Radium-226	Air	Bq	7,13E+00	7,13E+00	4,89E+00	4,89E+00	3,05E+00	3,05E+00	1,97E+00	1,97E+00
Radium-228	Air	Bq	1,01E+00	1,01E+00	1,03E+00	1,03E+00	1,44E+00	1,44E+00	1,12E+00	1,12E+00
Radon-220	Air	Bq	2,56E+01	2,56E+01	1,41E+01	1,41E+01	2,79E+01	2,79E+01	5,34E+00	5,34E+00
Radon-222	Air	Bq	2,02E+05	8,55E+06	1,09E+05	4,59E+06	1,90E+05	8,15E+06	1,30E+05	5,56E+06
Rhodium	Air	kg	x	x	1,52E-18	1,52E-18	x	x	x	x
Ruthenium-103	Air	Bq	2,51E-07	2,51E-07	2,12E-07	2,12E-07	1,65E-07	1,65E-07	1,86E-07	1,86E-07
Scandium	Air	kg	2,34E-08	8,05E-07	2,45E-08	4,44E-07	3,04E-08	7,75E-07	2,57E-08	5,34E-07
Selenium	Air	kg	2,35E-06	2,46E-06	1,74E-06	1,80E-06	2,61E-06	2,72E-06	1,45E-06	1,52E-06
Silicon	Air	kg	4,50E-04	4,99E-04	6,90E-04	7,16E-04	9,07E-04	9,53E-04	3,95E-04	4,26E-04
Silicon tetrafluoride	Air	kg	5,08E-07	5,08E-07	6,94E-07	6,94E-07	1,61E-09	1,61E-09	1,77E-09	1,77E-09
Silver	Air	kg	1,84E-09	3,45E-08	7,72E-10	1,83E-08	7,70E-10	3,19E-08	1,09E-09	2,23E-08
Silver-110	Air	Bq	2,48E-06	2,48E-06	2,10E-06	2,10E-06	1,63E-06	1,63E-06	1,85E-06	1,85E-06
Sodium	Air	kg	3,50E-04	3,63E-04	4,75E-04	4,81E-04	1,06E-04	1,19E-04	1,45E-04	1,54E-04
Sodium chlorate	Air	kg	2,57E-08	2,57E-08	4,57E-08	4,57E-08	2,75E-08	2,75E-08	1,60E-08	1,60E-08
Sodium dichromate	Air	kg	8,81E-07	8,81E-07	6,48E-07	6,48E-07	8,41E-07	8,41E-07	5,21E-07	5,21E-07
Sodium formate	Air	kg	4,79E-08	4,79E-08	5,14E-08	5,14E-08	4,92E-08	4,92E-08	4,71E-08	4,71E-08
Sodium hydroxide	Air	kg	8,95E-08	8,95E-08	7,79E-08	7,79E-08	3,63E-08	3,63E-08	1,26E-07	1,26E-07
Strontium	Air	kg	4,96E-06	5,75E-06	4,31E-06	4,74E-06	6,84E-06	7,59E-06	4,82E-06	5,33E-06
Styrene	Air	kg	1,17E-07	1,17E-07	1,28E-07	1,28E-07	1,21E-07	1,21E-07	2,53E-07	2,53E-07
Sulfate	Air	kg	7,38E-03	7,58E-03	6,44E-03	6,55E-03	2,60E-04	4,51E-04	8,03E-03	8,16E-03
Sulfur dioxide	Air	kg	1,58E-01	1,58E-01	1,33E-01	1,33E-01	1,99E-01	1,99E-01	1,38E-01	1,38E-01
Sulfur hexafluoride	Air	kg	1,72E-06	1,72E-06	1,72E-06	1,72E-06	1,44E-06	1,44E-06	1,76E-06	1,76E-06
Sulfur trioxide	Air	kg	1,20E-05	1,20E-05	6,54E-07	6,54E-07	5,76E-08	5,76E-08	5,47E-08	5,47E-08
Sulfuric acid	Air	kg	1,87E-08	1,87E-08	1,63E-08	1,63E-08	7,60E-09	7,60E-09	2,64E-08	2,64E-08
t-Butyl methyl ether	Air	kg	4,01E-08	4,01E-08	3,90E-08	3,90E-08	2,87E-08	2,87E-08	2,29E-08	2,29E-08
t-Butylamine	Air	kg	2,49E-07	2,49E-07	7,43E-08	7,43E-08	1,21E-10	1,21E-10	5,56E-11	5,56E-11

Tellurium	Air	kg	x	x	3,29E-13	3,29E-13	x	x	x	x
Terpenes	Air	kg	7,08E-06	7,08E-06	7,07E-06	7,07E-06	6,87E-06	6,87E-06	6,84E-06	6,84E-06
Thallium	Air	kg	3,93E-08	3,93E-08	9,42E-08	9,42E-08	4,79E-08	4,79E-08	4,34E-08	4,34E-08
Thorium	Air	kg	2,99E-08	2,99E-08	3,27E-08	3,27E-08	4,04E-08	4,04E-08	3,44E-08	3,44E-08
Thorium-228	Air	Bq	1,88E-01	1,88E-01	1,47E-01	1,47E-01	2,55E-01	2,55E-01	1,59E-01	1,59E-01
Thorium-230	Air	Bq	4,02E+00	4,02E+00	3,00E+00	3,00E+00	2,34E-01	2,34E-01	1,62E-01	1,62E-01
Thorium-232	Air	Bq	2,66E-01	2,66E-01	1,88E-01	1,88E-01	3,08E-01	3,08E-01	1,72E-01	1,72E-01
Thorium-234	Air	Bq	6,48E-02	6,48E-02	3,49E-02	3,49E-02	6,21E-02	6,21E-02	4,21E-02	4,21E-02
Tin	Air	kg	4,43E-06	4,48E-06	4,59E-06	4,61E-06	6,11E-06	6,15E-06	1,18E-06	1,20E-06
Tin oxide	Air	kg	x	x	4,27E-16	4,27E-16	x	x	x	x
Titanium	Air	kg	3,75E-05	5,18E-05	3,97E-05	4,74E-05	4,04E-05	5,40E-05	4,36E-05	5,28E-05
Toluene	Air	kg	1,98E-04	1,98E-04	1,74E-04	1,74E-04	9,63E-05	9,63E-05	7,90E-05	7,90E-05
Toluene, 2-chloro-	Air	kg	7,55E-07	7,55E-07	5,44E-08	5,44E-08	2,11E-09	2,11E-09	2,01E-09	2,01E-09
Trimethylamine	Air	kg	9,39E-09	9,39E-09	1,17E-08	1,17E-08	1,44E-12	1,44E-12	1,34E-12	1,34E-12
Tungsten	Air	kg	1,93E-10	8,85E-08	1,04E-10	4,75E-08	1,84E-10	8,43E-08	1,26E-10	5,75E-08
Uranium	Air	kg	3,45E-08	3,45E-08	3,85E-08	3,85E-08	4,84E-08	4,84E-08	4,09E-08	4,09E-08
Uranium-234	Air	Bq	4,53E+00	4,53E+00	3,28E+00	3,28E+00	7,24E-01	7,24E-01	4,95E-01	4,95E-01
Uranium-235	Air	Bq	3,65E-02	3,65E-02	2,10E-02	2,10E-02	3,48E-02	3,48E-02	2,37E-02	2,37E-02
Uranium-238	Air	Bq	5,12E+00	5,12E+00	3,70E+00	3,70E+00	1,52E+00	1,52E+00	9,46E-01	9,46E-01
Uranium alpha	Air	Bq	3,51E+00	3,51E+00	1,89E+00	1,89E+00	3,35E+00	3,35E+00	2,29E+00	2,29E+00
Used air	Air	kg	x	x	3,82E+00	3,82E+00	x	x	x	x
Vanadium	Air	kg	6,27E-05	6,40E-05	5,69E-05	5,76E-05	4,56E-05	4,69E-05	4,21E-05	4,29E-05
VOC, volatile organic compounds	Air	kg	8,63E-02	8,63E-02	2,78E-07	2,78E-07	9,97E-02	9,97E-02	x	x
Water	Air	kg	5,16E-02	5,16E-02	7,77E-01	7,77E-01	9,27E-01	9,27E-01	5,02E-02	5,02E-02
Xenon-131m	Air	Bq	2,70E+01	2,70E+01	1,93E+01	1,93E+01	1,56E+01	1,56E+01	1,85E+01	1,85E+01
Xenon-133	Air	Bq	9,35E+02	9,35E+02	6,92E+02	6,92E+02	5,55E+02	5,55E+02	6,50E+02	6,50E+02

Xenon-133m	Air	Bq	2,12E+00	2,12E+00	1,05E+00	1,05E+00	9,49E-01	9,49E-01	1,24E+00	1,24E+00
Xenon-135	Air	Bq	3,78E+02	3,78E+02	2,78E+02	2,78E+02	2,23E+02	2,23E+02	2,62E+02	2,62E+02
Xenon-135m	Air	Bq	2,32E+02	2,32E+02	1,73E+02	1,73E+02	1,39E+02	1,39E+02	1,62E+02	1,62E+02
Xenon-137	Air	Bq	6,24E+00	6,24E+00	5,14E+00	5,14E+00	4,01E+00	4,01E+00	4,57E+00	4,57E+00
Xenon-138	Air	Bq	4,89E+01	4,89E+01	3,90E+01	3,90E+01	3,07E+01	3,07E+01	3,53E+01	3,53E+01
Xylene	Air	kg	1,37E-04	1,37E-04	8,07E-05	8,07E-05	1,41E-04	1,41E-04	4,68E-05	4,68E-05
Zinc	Air	kg	2,22E-04	2,23E-04	2,42E-04	2,42E-04	4,73E-04	4,74E-04	8,01E-05	8,10E-05
Zinc-65	Air	Bq	4,80E-05	4,80E-05	4,06E-05	4,06E-05	3,15E-05	3,15E-05	3,57E-05	3,57E-05
Zinc oxide	Air	kg	x	x	8,55E-16	8,55E-16	x	x	x	x
Zirconium	Air	kg	7,95E-08	7,95E-08	7,59E-08	7,59E-08	8,19E-08	8,19E-08	7,27E-08	7,27E-08
Zirconium-95	Air	Bq	4,69E-05	4,69E-05	3,97E-05	3,97E-05	3,08E-05	3,08E-05	3,48E-05	3,48E-05
1-Butanol	Water	kg	5,45E-07	5,45E-07	1,03E-07	1,03E-07	2,41E-08	2,41E-08	8,24E-08	8,24E-08
1-Pentanol	Water	kg	3,64E-07	3,64E-07	2,25E-08	2,25E-08	1,98E-10	1,98E-10	2,40E-11	2,40E-11
1-Pentene	Water	kg	2,75E-07	2,75E-07	1,70E-08	1,70E-08	1,50E-10	1,50E-10	1,81E-11	1,81E-11
1-Propanol	Water	kg	1,27E-07	1,27E-07	5,86E-08	5,86E-08	2,80E-10	2,80E-10	4,55E-11	4,55E-11
1,4-Butanediol	Water	kg	2,17E-07	2,17E-07	3,02E-08	3,02E-08	6,09E-10	6,09E-10	6,81E-10	6,81E-10
2-Aminopropanol	Water	kg	3,69E-07	3,69E-07	2,37E-08	2,37E-08	5,46E-12	5,46E-12	3,91E-12	3,91E-12
2-Methyl-1-propanol	Water	kg	6,25E-07	6,25E-07	7,33E-08	7,33E-08	7,86E-10	7,86E-10	4,85E-10	4,85E-10
2-Methyl-2-butene	Water	kg	6,10E-11	6,10E-11	3,77E-12	3,77E-12	3,32E-14	3,32E-14	4,02E-15	4,02E-15
2-Propanol	Water	kg	1,23E-06	1,23E-06	3,24E-07	3,24E-07	5,41E-10	5,41E-10	2,34E-10	2,34E-10
4-Methyl-2-pentanone	Water	kg	3,85E-11	3,85E-11	3,66E-11	3,66E-11	1,74E-10	1,74E-10	2,89E-11	2,89E-11
Acenaphthene	Water	kg	1,63E-09	1,63E-09	1,10E-09	1,10E-09	1,62E-09	1,62E-09	5,73E-10	5,73E-10
Acenaphthylene	Water	kg	1,02E-10	1,02E-10	9,11E-11	9,11E-11	1,01E-10	1,01E-10	3,59E-11	3,59E-11
Acetaldehyde	Water	kg	9,55E-06	9,55E-06	1,07E-03	1,07E-03	1,13E-07	1,13E-07	8,52E-04	8,52E-04
Acetic acid	Water	kg	1,92E-04	1,92E-04	1,53E-02	1,53E-02	1,26E-04	1,26E-04	1,21E-02	1,21E-02
Acetone	Water	kg	1,14E-06	1,14E-06	5,59E-08	5,59E-08	1,66E-09	1,66E-09	9,78E-10	9,78E-10

Acetonitrile	Water	kg	1,23E-07	1,23E-07	1,96E-08	1,96E-08	1,09E-11	1,09E-11	9,33E-12	9,33E-12
Acetyl chloride	Water	kg	2,86E-07	2,86E-07	1,77E-08	1,77E-08	1,56E-10	1,56E-10	1,89E-11	1,89E-11
Acidity, unspecified	Water	kg	1,41E-04	1,41E-04	1,43E-04	1,43E-04	1,67E-04	1,67E-04	1,46E-04	1,46E-04
Acids, unspecified	Water	kg	4,27E-02	4,27E-02	5,82E-02	5,82E-02	x	x	x	x
Acrylate, ion	Water	kg	2,11E-08	2,11E-08	1,84E-08	1,84E-08	8,56E-09	8,56E-09	2,98E-08	2,98E-08
Acrylonitrile	Water	kg	x	x	1,41E-12	1,41E-12	x	x	x	x
Actinides, radioactive, unspecified	Water	Bq	7,34E-01	7,34E-01	3,77E-01	3,77E-01	7,20E-01	7,20E-01	5,07E-01	5,07E-01
Aluminium	Water	kg	2,94E-04	9,95E-01	2,58E-04	9,90E-01	4,09E-04	3,02E+00	1,88E-04	3,20E-02
Americium-241	Water	Bq	x	x	1,48E-04	1,48E-04	x	x	x	x
Ammonia	Water	kg	x	x	2,21E-05	2,21E-05	x	x	x	x
Ammonium, ion	Water	kg	9,13E-04	9,22E-04	1,07E-03	1,08E-03	3,36E-04	3,50E-04	1,19E-03	1,20E-03
Aniline	Water	kg	2,80E-06	2,80E-06	1,61E-07	1,61E-07	1,29E-08	1,29E-08	1,22E-08	1,22E-08
Anthracene	Water	kg	x	x	1,92E-11	1,92E-11	x	x	x	x
Antimony	Water	kg	2,77E-04	8,07E-04	3,72E-04	1,07E-03	5,86E-05	1,95E-04	2,31E-04	6,68E-04
Antimony-122	Water	Bq	7,17E-04	7,17E-04	6,08E-04	6,08E-04	4,71E-04	4,71E-04	5,33E-04	5,33E-04
Antimony-124	Water	Bq	1,44E-01	1,44E-01	8,63E-02	8,63E-02	1,44E-01	1,44E-01	9,46E-02	9,46E-02
Antimony-125	Water	Bq	1,46E-01	1,46E-01	9,23E-02	9,23E-02	1,64E-01	1,64E-01	8,36E-02	8,36E-02
AOX, Adsorbable Organic Halogen as Cl	Water	kg	1,36E-06	1,36E-06	4,74E-06	4,74E-06	3,92E-06	3,92E-06	1,13E-06	1,13E-06
Arsenic, ion	Water	kg	1,03E-04	2,22E-04	8,71E-05	1,76E-04	1,32E-04	2,76E-04	3,16E-05	1,15E-04
Barite	Water	kg	2,06E-03	2,06E-03	1,28E-03	1,28E-03	6,85E-04	6,85E-04	1,49E-04	1,49E-04
Barium	Water	kg	2,32E-04	1,11E-03	1,48E-04	7,95E-04	2,40E-04	2,16E-03	8,61E-05	1,90E-03
Barium-140	Water	Bq	3,14E-03	3,14E-03	2,66E-03	2,66E-03	2,06E-03	2,06E-03	2,33E-03	2,33E-03
Benzene	Water	kg	7,92E-04	7,92E-04	7,21E-04	7,21E-04	6,63E-04	6,63E-04	1,62E-03	1,62E-03
Benzene, 1,2-dichloro-	Water	kg	5,20E-06	5,20E-06	5,57E-07	5,57E-07	1,13E-08	1,13E-08	3,53E-08	3,53E-08
Benzene, chloro-	Water	kg	7,39E-05	7,54E-05	7,39E-06	7,46E-06	2,24E-07	2,24E-07	7,27E-07	7,27E-07
Benzene, ethyl-	Water	kg	6,28E-06	6,28E-06	3,98E-06	3,98E-06	6,24E-06	6,24E-06	2,21E-06	2,21E-06

Benzo(a)anthracene	Water	kg	x	x	1,56E-11	1,56E-11	x	x	x	x
Benzo(b)fluoranthene	Water	kg	x	x	1,73E-11	1,73E-11	x	x	x	x
Benzyl alcohol	Water	kg	2,50E-05	2,50E-05	x	x	x	x	x	x
Beryllium	Water	kg	8,23E-08	3,14E-05	5,70E-08	2,09E-05	9,66E-08	3,56E-05	4,97E-08	2,14E-05
BOD5, Biological Oxygen Demand	Water	kg	1,28E+00	1,34E+00	6,11E-01	6,97E-01	6,29E-02	1,42E-01	2,35E-01	3,04E-01
Borate	Water	kg	4,28E-05	4,28E-05	3,05E-06	3,05E-06	1,52E-08	1,52E-08	1,99E-09	1,99E-09
Boron	Water	kg	1,35E-04	1,69E-03	1,16E-04	1,38E-03	1,97E-04	2,45E-03	1,88E-04	1,34E-03
Bromate	Water	kg	2,89E-05	2,89E-05	5,89E-05	5,89E-05	5,15E-05	5,15E-05	3,51E-04	3,51E-04
Bromide	Water	kg	1,75E-03	1,75E-03	1,93E-04	1,93E-04	3,77E-06	3,77E-06	3,08E-06	3,08E-06
Bromine	Water	kg	7,42E-04	8,07E-04	3,91E-03	4,00E-03	3,29E-04	3,61E-04	3,53E-04	4,15E-04
Butene	Water	kg	2,71E-05	2,71E-05	2,99E-05	2,99E-05	3,85E-07	3,85E-07	1,14E-07	1,14E-07
Butyl acetate	Water	kg	1,11E-07	1,11E-07	6,86E-08	6,86E-08	3,06E-08	3,06E-08	1,07E-07	1,07E-07
Butyrolactone	Water	kg	1,28E-10	1,28E-10	1,12E-10	1,12E-10	5,21E-11	5,21E-11	1,81E-10	1,81E-10
Cadmium	Water	kg	x	x	2,05E-08	2,05E-08	x	x	x	x
Cadmium, ion	Water	kg	1,73E-05	6,37E-05	1,19E-05	5,08E-05	1,39E-06	7,32E-05	8,64E-07	3,33E-05
Calcium, ion	Water	kg	6,72E-01	1,11E+00	4,75E-01	7,86E-01	2,93E-02	4,83E-01	1,88E-02	6,75E-01
Carbon-14	Water	Bq	x	x	7,51E-03	7,51E-03	x	x	x	x
Carbon disulfide	Water	kg	2,55E-06	2,55E-06	5,28E-08	5,28E-08	1,09E-08	1,09E-08	1,69E-09	1,69E-09
Carbonate	Water	kg	2,50E-03	2,50E-03	1,63E-03	1,63E-03	1,79E-03	1,79E-03	1,93E-03	1,93E-03
Carboxylic acids, unspecified	Water	kg	1,13E-03	1,13E-03	7,23E-04	7,23E-04	1,12E-03	1,12E-03	3,99E-04	3,99E-04
Cerium-141	Water	Bq	1,26E-03	1,26E-03	1,06E-03	1,06E-03	8,25E-04	8,25E-04	9,34E-04	9,34E-04
Cerium-144	Water	Bq	3,82E-04	3,82E-04	3,24E-04	3,24E-04	2,51E-04	2,51E-04	2,84E-04	2,84E-04
Cesium	Water	kg	2,62E-07	2,62E-07	1,66E-07	1,66E-07	2,60E-07	2,60E-07	9,22E-08	9,22E-08
Cesium-134	Water	Bq	1,19E-01	1,19E-01	7,74E-02	7,74E-02	1,47E-01	1,47E-01	6,36E-02	6,36E-02
Cesium-136	Water	Bq	2,23E-04	2,23E-04	1,89E-04	1,89E-04	1,47E-04	1,47E-04	1,66E-04	1,66E-04
Cesium-137	Water	Bq	8,47E+01	8,47E+01	4,37E+01	4,37E+01	8,31E+01	8,31E+01	5,85E+01	5,85E+01

Chloramine	Water	kg	7,66E-06	7,66E-06	5,19E-07	5,19E-07	2,62E-09	2,62E-09	3,45E-10	3,45E-10
Chlorate	Water	kg	2,22E-04	2,22E-04	4,55E-04	4,55E-04	3,97E-04	3,97E-04	2,69E-03	2,69E-03
Chloride	Water	kg	6,90E-01	1,40E+00	3,86E-01	5,04E-01	3,95E-01	4,43E-01	2,67E+00	2,70E+00
Chlorinated solvents, unspecified	Water	kg	8,05E-06	8,05E-06	8,72E-06	8,72E-06	7,44E-06	7,44E-06	8,24E-06	8,24E-06
Chlorine	Water	kg	5,71E-06	5,71E-06	8,96E-06	8,96E-06	4,60E-06	4,60E-06	8,00E-06	8,00E-06
Chloroacetic acid	Water	kg	1,06E-04	1,06E-04	3,71E-06	3,71E-06	2,35E-07	2,35E-07	1,94E-07	1,94E-07
Chloroacetyl chloride	Water	kg	4,92E-07	4,92E-07	3,16E-08	3,16E-08	7,28E-12	7,28E-12	5,22E-12	5,22E-12
Chloroform	Water	kg	3,27E-07	3,27E-07	2,88E-08	2,88E-08	5,63E-10	5,63E-10	1,68E-09	1,68E-09
Chlorosulfonic acid	Water	kg	4,49E-07	4,49E-07	7,14E-08	7,14E-08	3,95E-11	3,95E-11	3,39E-11	3,39E-11
Chromium	Water	kg	x	x	6,48E-09	6,48E-09	x	x	x	x
Chromium-51	Water	Bq	2,98E-01	2,98E-01	2,36E-01	2,36E-01	2,47E-01	2,47E-01	1,99E-01	1,99E-01
Chromium VI	Water	kg	1,72E-04	8,22E-04	1,68E-04	7,66E-04	3,01E-04	1,36E-03	5,81E-05	2,97E-04
Chromium, ion	Water	kg	3,65E-05	3,65E-05	2,09E-05	2,09E-05	9,75E-06	9,75E-06	8,58E-06	8,58E-06
Chrysene	Water	kg	x	x	8,80E-11	8,80E-11	x	x	x	x
Cobalt	Water	kg	1,28E-05	1,44E-03	2,99E-05	1,35E-03	1,45E-05	1,51E-03	1,49E-05	6,43E-04
Cobalt-57	Water	Bq	7,08E-03	7,08E-03	6,00E-03	6,00E-03	4,65E-03	4,65E-03	5,26E-03	5,26E-03
Cobalt-58	Water	Bq	1,67E+00	1,67E+00	1,21E+00	1,21E+00	1,51E+00	1,51E+00	1,11E+00	1,11E+00
Cobalt-60	Water	Bq	1,39E+00	1,39E+00	1,06E+00	1,06E+00	1,22E+00	1,22E+00	9,20E-01	9,20E-01
COD, Chemical Oxygen Demand	Water	kg	1,59E+00	1,78E+00	7,01E-01	9,44E-01	7,23E-02	3,12E-01	2,52E-01	4,65E-01
Copper	Water	kg	x	x	9,39E-08	9,39E-08	x	x	x	x
Copper, ion	Water	kg	2,49E-05	8,23E-04	3,67E-05	7,46E-04	8,84E-06	1,31E-03	2,36E-05	7,49E-04
Cresol	Water	kg	x	x	4,52E-13	4,52E-13	x	x	x	x
Cumene	Water	kg	9,60E-04	9,60E-04	9,65E-04	9,65E-04	9,43E-04	9,43E-04	2,33E-03	2,33E-03
Curium alpha	Water	Bq	x	x	1,97E-04	1,97E-04	x	x	x	x
Cyanide	Water	kg	1,25E-05	1,25E-05	1,07E-05	1,07E-05	1,75E-05	1,75E-05	8,68E-06	8,68E-06
Decane	Water	kg	x	x	1,57E-07	1,57E-07	x	x	x	x

Dichromate	Water	kg	1,50E-06	1,50E-06	6,35E-07	6,35E-07	1,36E-06	1,36E-06	1,64E-07	1,64E-07
Diethylamine	Water	kg	1,39E-06	1,39E-06	7,62E-08	7,62E-08	5,71E-09	5,71E-09	5,42E-09	5,42E-09
Dimethylamine	Water	kg	3,98E-06	3,98E-06	4,19E-07	4,19E-07	2,44E-09	2,44E-09	2,31E-09	2,31E-09
Dioxin, 2,3,7,8 Tetrachlorodibenzo-p-	Water	kg	x	x	5,28E-23	5,28E-23	x	x	x	x
Dipropylamine	Water	kg	6,76E-07	6,76E-07	3,52E-08	3,52E-08	3,64E-09	3,64E-09	3,46E-09	3,46E-09
DOC, Dissolved Organic Carbon	Water	kg	1,96E-02	9,29E-02	2,03E-02	1,18E-01	1,90E-02	1,15E-01	6,81E-02	1,53E-01
Ethane, 1,2-dichloro-	Water	kg	1,25E-05	1,25E-05	7,41E-06	7,41E-06	1,14E-07	1,14E-07	1,00E-07	1,00E-07
Ethanol	Water	kg	3,60E-05	3,60E-05	1,02E-04	1,02E-04	9,51E-08	9,51E-08	3,90E-06	3,90E-06
Ethene	Water	kg	4,58E-04	4,58E-04	2,86E-04	2,86E-04	4,00E-04	4,00E-04	4,74E-05	4,74E-05
Ethene, chloro-	Water	kg	6,23E-08	6,23E-08	6,66E-08	6,66E-08	6,51E-08	6,51E-08	5,68E-08	5,68E-08
Ethyl acetate	Water	kg	5,77E-07	5,77E-07	8,02E-07	8,02E-07	6,08E-09	6,08E-09	5,99E-07	5,99E-07
Ethylamine	Water	kg	1,01E-06	1,01E-06	4,02E-07	4,02E-07	9,14E-10	9,14E-10	3,36E-10	3,36E-10
Ethylene diamine	Water	kg	1,00E-06	1,00E-06	2,09E-08	2,09E-08	6,00E-09	6,00E-09	6,85E-10	6,85E-10
Ethylene oxide	Water	kg	1,56E-06	1,56E-06	1,30E-07	1,30E-07	1,01E-07	1,01E-07	1,10E-07	1,10E-07
Fluoranthene	Water	kg	x	x	1,84E-11	1,84E-11	x	x	x	x
Fluoride	Water	kg	7,79E-03	2,20E-02	6,00E-03	2,10E-02	1,24E-03	2,18E-02	7,77E-04	6,17E-03
Fluorine	Water	kg	x	x	4,65E-10	4,65E-10	x	x	x	x
Fluosilicic acid	Water	kg	4,84E-05	4,84E-05	4,82E-05	4,82E-05	1,48E-04	1,48E-04	2,05E-06	2,05E-06
Formaldehyde	Water	kg	5,90E-05	5,90E-05	7,43E-05	7,43E-05	5,34E-05	5,34E-05	6,96E-05	6,96E-05
Formamide	Water	kg	6,66E-07	6,66E-07	4,12E-08	4,12E-08	3,62E-10	3,62E-10	4,39E-11	4,39E-11
Formate	Water	kg	7,67E-05	7,67E-05	2,29E-05	2,29E-05	3,74E-08	3,74E-08	1,71E-08	1,71E-08
Formic acid	Water	kg	1,93E-07	1,93E-07	1,20E-08	1,20E-08	1,05E-10	1,05E-10	1,27E-11	1,27E-11
Glutaraldehyde	Water	kg	2,55E-07	2,55E-07	1,58E-07	1,58E-07	8,45E-08	8,45E-08	1,84E-08	1,84E-08
Heat, waste	Water	MJ	5,41E+01	5,42E+01	5,28E+01	5,29E+01	6,01E+01	6,04E+01	5,34E+01	5,35E+01
Hexane	Water	kg	x	x	4,96E-14	4,96E-14	x	x	x	x
Hydrocarbons, aliphatic, alkanes, unspecified	Water	kg	3,40E-05	3,40E-05	2,15E-05	2,15E-05	3,38E-05	3,38E-05	1,20E-05	1,20E-05

Hydrocarbons, aliphatic, unsaturated	Water	kg	3,65E-06	3,65E-06	2,06E-06	2,06E-06	3,12E-06	3,12E-06	1,11E-06	1,11E-06
Hydrocarbons, aromatic	Water	kg	1,41E-04	1,41E-04	8,97E-05	8,97E-05	1,38E-04	1,38E-04	4,92E-05	4,92E-05
Hydrocarbons, unspecified	Water	kg	6,32E-04	6,32E-04	6,43E-04	6,43E-04	7,04E-04	7,04E-04	6,99E-04	6,99E-04
Hydrogen-3, Tritium	Water	Bq	1,94E+05	1,94E+05	1,00E+05	1,00E+05	1,91E+05	1,91E+05	1,33E+05	1,33E+05
Hydrogen chloride	Water	kg	x	x	2,92E-10	2,92E-10	x	x	x	x
Hydrogen fluoride	Water	kg	x	x	1,00E-11	1,00E-11	x	x	x	x
Hydrogen peroxide	Water	kg	1,20E-04	1,20E-04	1,20E-04	1,20E-04	1,20E-04	1,20E-04	1,20E-04	1,20E-04
Hydrogen sulfide	Water	kg	4,06E-06	7,29E-05	3,82E-06	9,08E-05	4,13E-06	4,18E-05	3,69E-06	4,08E-05
Hydroxide	Water	kg	1,55E-06	1,55E-06	6,46E-07	6,46E-07	2,73E-07	2,73E-07	9,41E-07	9,41E-07
Hypochlorite	Water	kg	1,05E-05	1,05E-05	5,43E-06	5,43E-06	1,21E-05	1,21E-05	4,85E-06	4,85E-06
Iodide	Water	kg	3,17E-04	3,17E-04	1,74E-04	1,74E-04	2,73E-05	2,73E-05	1,02E-05	1,02E-05
Iodine-129	Water	Bq	x	x	2,15E-02	2,15E-02	x	x	x	x
Iodine-131	Water	Bq	2,90E-02	2,90E-02	1,84E-02	1,84E-02	2,82E-02	2,82E-02	1,79E-02	1,79E-02
Iodine-133	Water	Bq	1,97E-03	1,97E-03	1,67E-03	1,67E-03	1,30E-03	1,30E-03	1,47E-03	1,47E-03
Iron	Water	kg	x	x	1,80E-05	1,80E-05	x	x	x	x
Iron-59	Water	Bq	5,42E-04	5,42E-04	4,59E-04	4,59E-04	3,56E-04	3,56E-04	4,03E-04	4,03E-04
Iron, ion	Water	kg	8,91E-03	6,33E-02	4,08E-03	4,17E-02	8,52E-03	7,94E-02	6,47E-03	4,13E-02
Isopropylamine	Water	kg	5,32E-07	5,32E-07	1,40E-07	1,40E-07	2,35E-10	2,35E-10	1,01E-10	1,01E-10
Lactic acid	Water	kg	5,29E-07	5,29E-07	2,76E-08	2,76E-08	2,85E-09	2,85E-09	2,71E-09	2,71E-09
Lanthanum-140	Water	Bq	3,35E-03	3,35E-03	2,84E-03	2,84E-03	2,20E-03	2,20E-03	2,49E-03	2,49E-03
Lead	Water	kg	2,23E-05	1,52E-03	1,43E-05	1,35E-03	1,35E-05	1,41E-03	6,46E-06	1,07E-03
Lead-210	Water	Bq	1,69E+03	1,69E+03	1,17E+03	1,17E+03	3,70E+00	3,70E+00	2,29E+00	2,29E+00
Lithium, ion	Water	kg	2,26E-05	2,26E-05	1,02E-05	1,02E-05	4,46E-05	4,46E-05	7,42E-06	7,42E-06
m-Xylene	Water	kg	8,90E-08	8,90E-08	3,36E-08	3,36E-08	1,65E-09	1,65E-09	2,56E-10	2,56E-10
Magnesium	Water	kg	8,65E-03	2,11E-01	2,99E-03	1,22E-01	3,82E-03	2,08E-01	1,68E-03	1,16E-01
Manganese	Water	kg	1,83E-04	1,76E-02	1,27E-04	1,20E-02	1,26E-04	1,78E-02	6,54E-05	9,90E-03
Manganese-54	Water	Bq	1,04E-01	1,04E-01	8,01E-02	8,01E-02	9,65E-02	9,65E-02	6,67E-02	6,67E-02

Mercury	Water	kg	2,70E-06	7,51E-06	1,62E-06	4,37E-06	2,27E-07	5,30E-06	3,36E-07	3,18E-06
Methane, dibromo-	Water	kg	x	x	8,54E-15	8,54E-15	x	x	x	x
Methane, dichloro-, HCC-30	Water	kg	5,06E-06	5,06E-06	2,63E-06	2,63E-06	3,30E-06	3,30E-06	1,59E-06	1,59E-06
Methane, monochloro-, R-40	Water	kg	x	x	9,17E-10	9,17E-10	x	x	x	x
Methanol	Water	kg	3,29E-05	3,29E-05	1,31E-04	1,31E-04	1,30E-05	1,30E-05	1,79E-05	1,79E-05
Methyl acetate	Water	kg	1,50E-07	1,50E-07	1,33E-08	1,33E-08	1,83E-12	1,83E-12	1,69E-12	1,69E-12
Methyl acrylate	Water	kg	1,98E-07	1,98E-07	1,72E-07	1,72E-07	8,01E-08	8,01E-08	2,79E-07	2,79E-07
Methyl amine	Water	kg	1,20E-07	1,20E-07	3,01E-08	3,01E-08	2,00E-09	2,00E-09	2,04E-09	2,04E-09
Methyl formate	Water	kg	2,93E-08	2,93E-08	1,82E-09	1,82E-09	2,23E-11	2,23E-11	2,40E-11	2,40E-11
Molybdenum	Water	kg	2,76E-05	1,68E-04	1,80E-05	1,21E-04	2,77E-05	1,74E-04	1,94E-05	1,03E-04
Molybdenum-99	Water	Bq	1,15E-03	1,15E-03	9,78E-04	9,78E-04	7,58E-04	7,58E-04	8,57E-04	8,57E-04
Naphthalene	Water	kg	x	x	2,20E-09	2,20E-09	x	x	x	x
Nickel	Water	kg	x	x	6,28E-08	6,28E-08	x	x	x	x
Nickel, ion	Water	kg	4,61E-05	3,35E-03	3,29E-05	2,84E-03	1,32E-05	4,12E-03	9,74E-06	1,03E-03
Niobium-95	Water	Bq	1,57E-02	1,57E-02	1,11E-02	1,11E-02	2,12E-02	2,12E-02	6,12E-03	6,12E-03
Nitrate	Water	kg	1,50E-01	1,68E-01	7,43E-02	8,52E-02	4,67E-03	2,09E-02	4,91E-03	1,52E-02
Nitrite	Water	kg	6,91E-06	7,40E-06	6,29E-06	6,77E-06	1,24E-05	1,32E-05	1,07E-05	1,10E-05
Nitrobenzene	Water	kg	8,43E-06	8,43E-06	4,21E-07	4,21E-07	2,87E-08	2,87E-08	2,73E-08	2,73E-08
Nitrogen	Water	kg	5,05E-04	5,05E-04	5,09E-04	5,09E-04	3,37E-04	3,37E-04	5,25E-04	5,25E-04
Nitrogen, organic bound	Water	kg	1,11E-04	1,25E-04	1,01E-04	1,16E-04	1,88E-04	2,11E-04	4,65E-05	5,55E-05
o-Xylene	Water	kg	2,02E-10	2,02E-10	1,93E-10	1,93E-10	9,16E-10	9,16E-10	1,52E-10	1,52E-10
Oils, unspecified	Water	kg	1,61E-02	1,61E-02	1,07E-02	1,07E-02	1,66E-02	1,66E-02	6,11E-03	6,11E-03
PAH, polycyclic aromatic hydrocarbons	Water	kg	1,61E-06	1,61E-06	1,06E-06	1,06E-06	1,70E-06	1,70E-06	6,26E-07	6,26E-07
Particulates, < 10 um	Water	kg	x	x	1,76E-11	1,76E-11	x	x	x	x
Particulates, > 10 um	Water	kg	x	x	1,71E-04	1,71E-04	x	x	x	x
Phenol	Water	kg	5,01E-05	5,01E-05	4,16E-05	4,16E-05	5,15E-05	5,15E-05	3,95E-04	3,95E-04

Phosphate	Water	kg	4,11E-02	9,48E-02	2,71E-02	5,93E-02	9,78E-03	6,64E-02	5,26E-03	3,55E-02
Phosphorus	Water	kg	1,37E-03	1,37E-03	1,44E-03	1,44E-03	1,69E-05	1,69E-05	3,29E-05	3,29E-05
Plutonium-alpha	Water	Bq	x	x	5,91E-04	5,91E-04	x	x	x	x
Polonium-210	Water	Bq	2,57E+03	2,57E+03	1,79E+03	1,79E+03	5,01E+00	5,01E+00	3,64E+00	3,64E+00
Potassium	Water	kg	x	x	1,85E-08	1,85E-08	x	x	x	x
Potassium-40	Water	Bq	2,05E+02	2,05E+02	1,43E+02	1,43E+02	1,77E+00	1,77E+00	-3,26E-02	-3,26E-02
Potassium, ion	Water	kg	7,30E-03	1,32E-01	3,41E-03	8,01E-02	4,28E-03	1,28E-01	2,09E-03	6,87E-02
Propanal	Water	kg	2,93E-07	2,93E-07	3,26E-08	3,26E-08	2,87E-10	2,87E-10	3,48E-11	3,48E-11
Propane, 1,2-dichloro-	Water	kg	x	x	1,93E-17	1,93E-17	x	x	x	x
Propene	Water	kg	8,33E-04	8,33E-04	7,01E-04	7,01E-04	6,67E-04	6,67E-04	4,36E-03	4,36E-03
Propionic acid	Water	kg	1,53E-06	1,53E-06	1,51E-07	1,51E-07	1,91E-09	1,91E-09	1,90E-09	1,90E-09
Propylamine	Water	kg	2,87E-08	2,87E-08	1,30E-08	1,30E-08	1,15E-10	1,15E-10	1,39E-11	1,39E-11
Propylene oxide	Water	kg	1,12E-05	1,12E-05	5,02E-07	5,02E-07	4,06E-07	4,06E-07	4,53E-03	4,53E-03
Protactinium-234	Water	Bq	1,19E+00	1,19E+00	6,41E-01	6,41E-01	1,14E+00	1,14E+00	7,76E-01	7,76E-01
Radioactive species, alpha emitters	Water	Bq	1,57E+00	1,57E+00	1,34E+00	1,34E+00	3,00E-03	3,00E-03	3,16E-03	3,16E-03
Radioactive species, Nuclides, unspecified	Water	Bq	4,40E+02	4,40E+02	2,26E+02	2,26E+02	4,32E+02	4,32E+02	3,04E+02	3,04E+02
Radium-224	Water	Bq	1,31E+01	1,31E+01	8,28E+00	8,28E+00	1,30E+01	1,30E+01	4,61E+00	4,61E+00
Radium-226	Water	Bq	2,66E+03	2,66E+03	1,74E+03	1,74E+03	7,32E+02	7,32E+02	4,93E+02	4,93E+02
Radium-228	Water	Bq	2,62E+01	2,62E+01	1,66E+01	1,66E+01	2,61E+01	2,61E+01	9,23E+00	9,23E+00
Rubidium	Water	kg	2,62E-06	2,62E-06	1,66E-06	1,66E-06	2,60E-06	2,60E-06	9,22E-07	9,22E-07
Ruthenium-103	Water	Bq	2,43E-04	2,43E-04	2,06E-04	2,06E-04	1,60E-04	1,60E-04	1,81E-04	1,81E-04
Ruthenium-106	Water	Bq	x	x	1,48E-04	1,48E-04	x	x	x	x
Scandium	Water	kg	1,19E-06	4,91E-05	6,49E-07	3,06E-05	1,28E-06	5,51E-05	8,83E-07	3,11E-05
Selenium	Water	kg	7,60E-06	8,96E-05	7,83E-06	6,76E-05	1,28E-05	1,16E-04	8,23E-06	6,68E-05
Silicon	Water	kg	2,28E-03	8,17E-01	2,01E-03	7,90E-01	3,21E-03	1,25E+00	9,47E-04	2,71E-01
Silver-110	Water	Bq	1,28E+00	1,28E+00	9,42E-01	9,42E-01	1,05E+00	1,05E+00	9,00E-01	9,00E-01

Silver, ion	Water	kg	2,94E-07	2,62E-06	1,88E-07	2,07E-06	3,52E-07	3,71E-06	1,20E-07	1,85E-06
Sodium-24	Water	Bq	8,73E-03	8,73E-03	7,40E-03	7,40E-03	5,74E-03	5,74E-03	6,49E-03	6,49E-03
Sodium formate	Water	kg	1,15E-07	1,15E-07	1,24E-07	1,24E-07	1,18E-07	1,18E-07	1,13E-07	1,13E-07
Sodium, ion	Water	kg	4,04E-01	9,57E-01	1,68E-01	3,60E-01	2,23E-01	5,35E-01	8,72E-01	1,28E+00
Soil loss by erosion into water	Water	kg	1,80E+01	1,80E+01	1,06E+01	1,06E+01	x	x	x	x
Solids, inorganic	Water	kg	2,20E-02	2,20E-02	1,41E-02	1,41E-02	2,15E-02	2,15E-02	1,74E-02	1,74E-02
Solved solids	Water	kg	7,47E-03	7,47E-03	6,96E-03	6,96E-03	8,07E-03	8,07E-03	6,17E-03	6,17E-03
Strontium	Water	kg	5,49E-04	6,88E-03	3,48E-04	4,20E-03	5,51E-04	7,10E-03	2,06E-04	4,45E-03
Strontium-89	Water	Bq	2,86E-02	2,86E-02	2,25E-02	2,25E-02	2,74E-02	2,74E-02	1,69E-02	1,69E-02
Strontium-90	Water	Bq	4,65E+02	4,65E+02	1,51E+02	1,51E+02	1,66E+02	1,66E+02	2,38E+02	2,38E+02
Sulfate	Water	kg	1,43E+00	3,13E+00	1,01E+00	1,91E+00	1,40E-01	1,63E+00	1,26E-01	9,75E-01
Sulfide	Water	kg	1,91E-05	1,91E-05	1,65E-05	1,65E-05	3,97E-06	3,97E-06	3,23E-06	3,23E-06
Sulfite	Water	kg	2,89E-05	2,89E-05	1,52E-05	1,52E-05	3,32E-05	3,32E-05	1,13E-05	1,13E-05
Sulfur	Water	kg	5,16E-03	5,16E-03	7,63E-04	7,63E-04	1,01E-04	1,01E-04	7,32E-05	7,32E-05
Suspended solids, unspecified	Water	kg	1,91E-02	1,91E-02	1,65E-02	1,65E-02	1,41E-02	1,41E-02	1,19E-02	1,19E-02
Suspended substances, unspecified	Water	kg	x	x	x	x	x	x	x	x
t-Butyl methyl ether	Water	kg	5,41E-07	5,41E-07	3,71E-07	3,71E-07	5,17E-07	5,17E-07	2,23E-07	2,23E-07
t-Butylamine	Water	kg	5,97E-07	5,97E-07	1,78E-07	1,78E-07	2,91E-10	2,91E-10	1,33E-10	1,33E-10
Technetium-99m	Water	Bq	2,66E-02	2,66E-02	2,25E-02	2,25E-02	1,74E-02	1,74E-02	1,97E-02	1,97E-02
Tellurium-123m	Water	Bq	1,49E-02	1,49E-02	8,57E-03	8,57E-03	1,72E-02	1,72E-02	8,84E-03	8,84E-03
Tellurium-132	Water	Bq	6,68E-05	6,68E-05	5,66E-05	5,66E-05	4,39E-05	4,39E-05	4,96E-05	4,96E-05
Thallium	Water	kg	6,28E-08	5,57E-06	3,58E-08	4,99E-06	7,46E-08	7,38E-06	3,19E-08	5,27E-06
Thorium-228	Water	Bq	7,30E+01	7,30E+01	4,75E+01	4,75E+01	5,20E+01	5,20E+01	1,85E+01	1,85E+01
Thorium-230	Water	Bq	1,63E+02	1,63E+02	8,74E+01	8,74E+01	1,55E+02	1,55E+02	1,06E+02	1,06E+02
Thorium-232	Water	Bq	2,79E-01	2,79E-01	1,53E-01	1,53E-01	2,72E-01	2,72E-01	-6,39E-02	-6,39E-02
Thorium-234	Water	Bq	1,19E+00	1,19E+00	6,41E-01	6,41E-01	1,14E+00	1,14E+00	7,76E-01	7,76E-01

Tin	Water	kg	x	x	7,88E-13	7,88E-13	x	x	x	x
Tin, ion	Water	kg	1,98E-07	2,06E-04	1,59E-07	1,87E-04	2,62E-07	2,19E-04	3,31E-06	1,43E-04
Titanium	Water	kg	x	x	1,16E-09	1,16E-09	x	x	x	x
Titanium, ion	Water	kg	2,48E-05	2,44E-02	3,20E-05	2,92E-02	7,17E-05	5,27E-02	1,34E-05	1,87E-02
TOC, Total Organic Carbon	Water	kg	1,99E-02	9,32E-02	2,05E-02	1,18E-01	1,93E-02	1,15E-01	6,83E-02	1,53E-01
Toluene	Water	kg	4,82E-05	4,82E-05	2,14E-05	2,14E-05	3,24E-05	3,24E-05	1,16E-05	1,16E-05
Toluene, 2-chloro-	Water	kg	1,42E-06	1,42E-06	8,33E-08	8,33E-08	4,42E-09	4,42E-09	4,20E-09	4,20E-09
Tributyltin compounds	Water	kg	1,09E-06	1,09E-06	1,34E-06	1,34E-06	1,13E-06	1,13E-06	1,94E-07	1,94E-07
Triethylene glycol	Water	kg	4,76E-06	4,76E-06	2,87E-06	2,87E-06	-1,87E-06	-1,87E-06	-2,15E-06	-2,15E-06
Trimethylamine	Water	kg	2,25E-08	2,25E-08	2,80E-08	2,80E-08	3,46E-12	3,46E-12	3,21E-12	3,21E-12
Tungsten	Water	kg	2,07E-06	4,89E-05	1,29E-06	4,11E-05	2,53E-06	7,20E-05	1,45E-06	3,69E-05
Uranium-234	Water	Bq	1,43E+00	1,43E+00	7,69E-01	7,69E-01	1,36E+00	1,36E+00	9,31E-01	9,31E-01
Uranium-235	Water	Bq	2,36E+00	2,36E+00	1,27E+00	1,27E+00	2,25E+00	2,25E+00	1,54E+00	1,54E+00
Uranium-238	Water	Bq	8,68E+02	8,68E+02	6,04E+02	6,04E+02	5,30E+00	5,30E+00	3,52E+00	3,52E+00
Uranium alpha	Water	Bq	6,87E+01	6,87E+01	3,69E+01	3,69E+01	6,55E+01	6,55E+01	4,47E+01	4,47E+01
Urea	Water	kg	9,43E-08	9,43E-08	5,23E-08	5,23E-08	3,31E-10	3,31E-10	4,16E-11	4,16E-11
Vanadium	Water	kg	x	x	2,50E-09	2,50E-09	x	x	x	x
Vanadium, ion	Water	kg	8,80E-06	1,80E-03	9,19E-06	2,17E-03	1,63E-05	3,90E-03	1,35E-05	3,14E-03
VOC, volatile organic compounds, unspecified origin	Water	kg	9,45E-05	9,45E-05	5,96E-05	5,96E-05	9,38E-05	9,38E-05	3,42E-05	3,42E-05
Water	Water	kg	4,28E+01	4,28E+01	5,83E+01	5,83E+01	x	x	x	x
Xylene	Water	kg	2,66E-05	2,66E-05	1,69E-05	1,69E-05	2,65E-05	2,65E-05	9,42E-06	9,42E-06
Zinc	Water	kg	x	x	2,67E-08	2,67E-08	x	x	x	x
Zinc-65	Water	Bq	1,18E-01	1,18E-01	1,00E-01	1,00E-01	7,78E-02	7,78E-02	8,80E-02	8,80E-02
Zinc, ion	Water	kg	2,24E-04	3,73E-03	1,34E-04	2,79E-03	8,76E-05	4,58E-03	4,00E-05	2,34E-03
Zirconium-95	Water	Bq	1,37E-03	1,37E-03	1,16E-03	1,16E-03	9,01E-04	9,01E-04	1,02E-03	1,02E-03
Calcium fluoride waste	Afval	kg	x	x	2,63E-08	2,63E-08	x	x	x	x

Construction waste	Afval	kg	x	x	1,93E-04	1,93E-04	x	x	x	x
Mineral waste, from mining	Afval	kg	x	x	1,54E-01	1,54E-01	x	x	x	x
Radioactive tailings	Afval	kg	x	x	4,61E-05	4,61E-05	x	x	x	x
Rejects	Afval	kg	x	x	1,26E-04	1,26E-04	x	x	x	x
Slag (uranium conversion)	Afval	kg	x	x	1,74E-07	1,74E-07	x	x	x	x
Slags	Afval	kg	x	x	8,18E-06	8,18E-06	x	x	x	x
Waste returned to mine	Afval	kg	x	x	1,37E-05	1,37E-05	x	x	x	x
Waste, nuclear, unspecified/kg	Afval	kg	x	x	4,65E-07	4,65E-07	x	x	x	x
2,4-D	Soil	kg	4,17E-05	4,17E-05	5,59E-05	5,59E-05	2,76E-06	2,76E-06	2,75E-06	2,75E-06
Acetamide	Soil	kg	x	x	x	x	x	x	x	x
Acetochlor	Soil	kg	x	x	x	x	x	x	x	x
Aclonifen	Soil	kg	1,02E-06	1,02E-06	1,77E-08	1,77E-08	1,84E-08	1,84E-08	1,63E-08	1,63E-08
Alachlor	Soil	kg	x	x	x	x	x	x	x	x
Aldrin	Soil	kg	6,00E-04	6,00E-04	8,17E-04	8,17E-04	9,30E-11	9,30E-11	3,24E-10	3,24E-10
Aluminium	Soil	kg	6,59E-04	6,59E-04	7,75E-04	7,75E-04	1,40E-04	1,40E-04	7,38E-05	7,38E-05
Ammonia	Soil	kg	x	x	2,25E-06	2,25E-06	x	x	x	x
Antimony	Soil	kg	3,37E-11	3,37E-11	2,95E-11	2,95E-11	2,06E-11	2,06E-11	8,88E-07	8,88E-07
Arsenic	Soil	kg	4,29E-05	4,29E-05	5,84E-05	5,84E-05	5,40E-08	5,40E-08	4,17E-07	4,17E-07
Atrazine	Soil	kg	1,57E-04	1,57E-04	2,14E-04	2,14E-04	2,44E-11	2,44E-11	8,49E-11	8,49E-11
Barium	Soil	kg	7,68E-05	7,68E-05	4,95E-05	4,95E-05	6,51E-05	6,51E-05	4,83E-05	4,83E-05
Benomyl	Soil	kg	1,82E-08	1,82E-08	1,81E-08	1,81E-08	1,76E-08	1,76E-08	1,76E-08	1,76E-08
Bentazone	Soil	kg	7,61E-03	7,61E-03	9,05E-09	9,05E-09	9,37E-09	9,37E-09	8,30E-09	8,30E-09
Bifenthrin	Soil	kg	x	x	x	x	x	x	x	x
Boron	Soil	kg	6,06E-06	6,06E-06	5,20E-06	5,20E-06	1,05E-05	1,05E-05	3,24E-06	3,24E-06
Bromide	Soil	kg	x	x	6,62E-10	6,62E-10	x	x	x	x
Bromoxynil	Soil	kg	x	x	x	x	x	x	x	x

Cadmium	Soil	kg	6,98E-07	6,98E-07	1,31E-06	1,31E-06	6,24E-09	6,24E-09	1,55E-07	1,55E-07
Calcium	Soil	kg	7,46E-03	7,46E-03	9,57E-03	9,57E-03	5,58E-04	5,58E-04	2,66E-04	2,66E-04
Carbetamide	Soil	kg	1,68E-04	1,68E-04	4,01E-09	4,01E-09	5,53E-09	5,53E-09	3,18E-09	3,18E-09
Carbofuran	Soil	kg	6,42E-04	6,42E-04	9,95E-06	9,95E-06	9,66E-06	9,66E-06	9,63E-06	9,63E-06
Carbon	Soil	kg	1,32E-03	1,32E-03	7,57E-04	7,57E-04	5,07E-04	5,07E-04	4,22E-04	4,22E-04
Chloride	Soil	kg	2,70E-03	2,70E-03	2,35E-03	2,35E-03	3,34E-03	3,34E-03	1,57E-03	1,57E-03
Chlorimuron-ethyl	Soil	kg	x	x	x	x	x	x	x	x
Chlorothalonil	Soil	kg	3,52E-04	3,52E-04	7,95E-07	7,95E-07	2,18E-06	2,18E-06	2,40E-07	2,40E-07
Chlorotoluron	Soil	kg	x	x	x	x	x	x	x	x
Chlorpyrifos	Soil	kg	x	x	x	x	x	x	x	x
Chromium	Soil	kg	9,45E-06	9,45E-06	5,48E-05	5,48E-05	7,38E-07	7,38E-07	1,87E-06	1,87E-06
Chromium VI	Soil	kg	2,56E-05	2,56E-05	2,38E-05	2,38E-05	5,20E-05	5,20E-05	5,96E-06	5,96E-06
Chromium, ion	Soil	kg	x	x	2,29E-14	2,29E-14	x	x	x	x
Clethodim	Soil	kg	x	x	x	x	x	x	x	x
Cloransulam-methyl	Soil	kg	x	x	x	x	x	x	x	x
Cobalt	Soil	kg	4,35E-07	4,35E-07	5,84E-07	5,84E-07	5,45E-09	5,45E-09	5,26E-09	5,26E-09
Copper	Soil	kg	4,11E-05	4,11E-05	9,47E-06	9,47E-06	3,10E-05	3,10E-05	4,83E-06	4,83E-06
Cyfluthrin	Soil	kg	x	x	x	x	x	x	x	x
Cypermethrin	Soil	kg	7,58E-05	7,58E-05	1,40E-06	1,40E-06	1,36E-06	1,36E-06	1,36E-06	1,36E-06
Cyproconazole	Soil	kg	x	x	x	x	x	x	x	x
Cyprodinil	Soil	kg	x	x	x	x	x	x	x	x
Decane	Soil	kg	x	x	8,23E-09	8,23E-09	x	x	x	x
Dicamba	Soil	kg	x	x	x	x	x	x	x	x
Diflufenzopyr-sodium	Soil	kg	x	x	x	x	x	x	x	x
Dimethenamid	Soil	kg	x	x	x	x	x	x	x	x
Ethephon	Soil	kg	x	x	x	x	x	x	x	x

Fenoxaprop	Soil	kg	x	x	x	x	x	x	x	x
Fenpiclonil	Soil	kg	1,39E-05	1,39E-05	3,19E-08	3,19E-08	8,66E-08	8,66E-08	9,99E-09	9,99E-09
Fenpropimorph	Soil	kg	x	x	x	x	x	x	x	x
Fipronil	Soil	kg	x	x	x	x	x	x	x	x
Fluazifop-P-butyl	Soil	kg	x	x	x	x	x	x	x	x
Flumetsulam	Soil	kg	x	x	x	x	x	x	x	x
Flumioxazin	Soil	kg	x	x	x	x	x	x	x	x
Fluoride	Soil	kg	2,50E-05	2,50E-05	2,11E-05	2,11E-05	4,16E-05	4,16E-05	7,17E-06	7,17E-06
Fomesafen	Soil	kg	x	x	x	x	x	x	x	x
Foramsulfuron	Soil	kg	x	x	x	x	x	x	x	x
Glufosinate	Soil	kg	x	x	x	x	x	x	x	x
Glyphosate	Soil	kg	7,60E-05	7,60E-05	9,62E-05	9,62E-05	1,95E-05	1,95E-05	1,96E-05	1,96E-05
Heat, waste	Soil	MJ	2,18E+00	2,18E+00	1,75E+00	1,75E+00	1,50E+00	1,50E+00	6,24E-01	6,24E-01
Imazamox	Soil	kg	x	x	x	x	x	x	x	x
Imazapyr	Soil	kg	x	x	x	x	x	x	x	x
Imazethapyr	Soil	kg	x	x	x	x	x	x	x	x
Iron	Soil	kg	1,65E-03	1,65E-03	1,75E-03	1,75E-03	9,52E-04	9,52E-04	1,21E-03	1,21E-03
Isoproturon	Soil	kg	x	x	x	x	x	x	x	x
Isoxaflutole	Soil	kg	x	x	x	x	x	x	x	x
Lambda-cyhalothrin	Soil	kg	x	x	x	x	x	x	x	x
Lead	Soil	kg	3,75E-06	3,75E-06	-5,14E-06	-5,14E-06	1,59E-07	1,59E-07	2,83E-06	2,83E-06
Linuron	Soil	kg	5,34E-04	5,34E-04	1,79E-04	1,79E-04	1,41E-07	1,41E-07	1,25E-07	1,25E-07
Magnesium	Soil	kg	8,96E-04	8,96E-04	1,12E-03	1,12E-03	1,08E-04	1,08E-04	5,19E-05	5,19E-05
Mancozeb	Soil	kg	4,57E-04	4,57E-04	1,03E-06	1,03E-06	2,84E-06	2,84E-06	3,11E-07	3,11E-07
Manganese	Soil	kg	4,87E-04	4,87E-04	6,49E-04	6,49E-04	5,72E-06	5,72E-06	6,63E-07	6,63E-07
Mercury	Soil	kg	2,15E-07	2,15E-07	-6,74E-08	-6,74E-08	1,54E-09	1,54E-09	1,39E-09	1,39E-09

Mesotrione	Soil	kg	x	x	x	x	x	x	x	x
Metaldehyde	Soil	kg	7,42E-05	7,42E-05	9,59E-10	9,59E-10	1,60E-09	1,60E-09	6,60E-10	6,60E-10
Metolachlor	Soil	kg	5,71E-05	5,71E-05	9,89E-07	9,89E-07	1,02E-06	1,02E-06	9,07E-07	9,07E-07
Metribuzin	Soil	kg	1,61E-05	1,61E-05	3,63E-08	3,63E-08	9,98E-08	9,98E-08	1,10E-08	1,10E-08
Molybdenum	Soil	kg	9,05E-08	9,05E-08	1,21E-07	1,21E-07	3,11E-09	3,11E-09	3,84E-09	3,84E-09
Napropamide	Soil	kg	1,31E-04	1,31E-04	1,70E-09	1,70E-09	2,83E-09	2,83E-09	1,17E-09	1,17E-09
Nickel	Soil	kg	4,37E-06	4,37E-06	2,37E-06	2,37E-06	9,15E-08	9,15E-08	1,29E-06	1,29E-06
Nicosulfuron	Soil	kg	x	x	x	x	x	x	x	x
Oils, biogenic	Soil	kg	2,72E-05	2,72E-05	2,39E-05	2,39E-05	2,81E-05	2,81E-05	2,34E-05	2,34E-05
Oils, unspecified	Soil	kg	1,80E-02	1,80E-02	1,69E-02	1,69E-02	1,70E-02	1,70E-02	6,05E-03	6,05E-03
Orbencarb	Soil	kg	8,69E-05	8,69E-05	1,96E-07	1,96E-07	5,39E-07	5,39E-07	5,92E-08	5,92E-08
Paraquat	Soil	kg	x	x	x	x	x	x	x	x
Parathion	Soil	kg	x	x	5,11E-04	5,11E-04	x	x	x	x
Pendimethalin	Soil	kg	x	x	x	x	x	x	x	x
Permethrin	Soil	kg	x	x	x	x	x	x	x	x
Phosphate	Soil	kg	x	x	1,29E-06	1,29E-06	x	x	x	x
Phosphorus	Soil	kg	2,43E-04	2,43E-04	3,21E-04	3,21E-04	6,68E-06	6,68E-06	2,12E-06	2,12E-06
Pirimicarb	Soil	kg	4,94E-08	4,94E-08	8,56E-10	8,56E-10	8,86E-10	8,86E-10	7,85E-10	7,85E-10
Potassium	Soil	kg	1,36E-03	1,36E-03	1,79E-03	1,79E-03	4,65E-05	4,65E-05	1,63E-05	1,63E-05
Primisulfuron	Soil	kg	x	x	x	x	x	x	x	x
Prochloraz	Soil	kg	1,48E-03	1,48E-03	x	x	x	x	x	x
Prosulfuron	Soil	kg	x	x	x	x	x	x	x	x
Rimsulfuron	Soil	kg	x	x	x	x	x	x	x	x
Silicon	Soil	kg	2,01E-03	2,01E-03	2,68E-03	2,68E-03	3,35E-05	3,35E-05	2,41E-05	2,41E-05
Simazine	Soil	kg	x	x	x	x	x	x	x	x
Sodium	Soil	kg	3,55E-04	3,55E-04	2,45E-04	2,45E-04	9,82E-04	9,82E-04	1,74E-04	1,74E-04

Strontium	Soil	kg	1,55E-06	1,55E-06	2,42E-06	2,42E-06	1,31E-06	1,31E-06	6,30E-07	6,30E-07
Sulfate	Soil	kg	x	x	7,10E-08	7,10E-08	x	x	x	x
Sulfentrazone	Soil	kg	x	x	x	x	x	x	x	x
Sulfide	Soil	kg	x	x	4,26E-07	4,26E-07	x	x	x	x
Sulfosate	Soil	kg	x	x	x	x	x	x	x	x
Sulfur	Soil	kg	3,19E-04	3,19E-04	3,62E-04	3,62E-04	8,82E-05	8,82E-05	5,05E-05	5,05E-05
Sulfuric acid	Soil	kg	1,16E-11	1,16E-11	1,01E-11	1,01E-11	4,69E-12	4,69E-12	1,63E-11	1,63E-11
Tebupirimphos	Soil	kg	x	x	x	x	x	x	x	x
Tebutam	Soil	kg	3,11E-04	3,11E-04	4,02E-09	4,02E-09	6,71E-09	6,71E-09	2,77E-09	2,77E-09
Teflubenzuron	Soil	kg	1,07E-06	1,07E-06	2,42E-09	2,42E-09	6,66E-09	6,66E-09	7,31E-10	7,31E-10
Tefluthrin	Soil	kg	x	x	x	x	x	x	x	x
Terbufos	Soil	kg	x	x	x	x	x	x	x	x
Thiram	Soil	kg	3,18E-04	3,18E-04	3,22E-08	3,22E-08	3,13E-08	3,13E-08	3,12E-08	3,12E-08
Tin	Soil	kg	-1,07E-06	-1,07E-06	-1,46E-06	-1,46E-06	1,28E-08	1,28E-08	1,77E-06	1,77E-06
Titanium	Soil	kg	3,32E-05	3,32E-05	4,45E-05	4,45E-05	2,37E-08	2,37E-08	-1,44E-07	-1,44E-07
Trifluralin	Soil	kg	1,89E-11	1,89E-11	x	x	x	x	x	x
Vanadium	Soil	kg	9,49E-07	9,49E-07	1,27E-06	1,27E-06	6,80E-10	6,80E-10	-4,11E-09	-4,11E-09
Zinc	Soil	kg	4,05E-04	4,05E-04	2,85E-05	2,85E-05	5,25E-06	5,25E-06	5,08E-06	5,08E-06

Table F 2 Life Cycle Inventory (LCI) Data – EWP.

			EWP							
			BioBuild Demonstrator		***BioBuild Optimized***		***Aluminium***		***GRP***	
Substance	**Compartment**	**Unit**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**
Air	Raw	kg	x	x	4,97E+01	4,97E+01	x	x	x	x
Aluminium	Raw	kg	1,92E+00	1,92E+00	1,77E+00	1,77E+00	1,27E+00	1,27E+00	9,86E-01	9,86E-01
Anhydrite	Raw	kg	5,81E-05	5,81E-05	5,34E-05	5,34E-05	1,38E-05	1,38E-05	5,71E-05	5,71E-05

Baryte	Raw	kg	6,56E-02	6,56E-02	5,84E-02	5,84E-02	5,14E-02	5,14E-02	5,70E-02	5,70E-02
Basalt	Raw	kg	8,92E+00	8,92E+00	8,92E+00	8,92E+00	8,92E+00	8,92E+00	8,92E+00	8,92E+00
Biomass, feedstock	Raw	MJ	x	x	7,20E-11	7,20E-11	x	x	x	x
Borax	Raw	kg	3,04E-04	3,04E-04	3,04E-04	3,04E-04	3,04E-04	3,04E-04	3,54E-04	3,54E-04
Bromine	Raw	kg	3,22E-03	3,22E-03	6,31E-04	6,31E-04	6,99E-06	6,99E-06	6,95E-06	6,95E-06
Cadmium	Raw	kg	3,13E-04	3,13E-04	3,04E-04	3,04E-04	3,02E-04	3,02E-04	3,02E-04	3,02E-04
Calcite	Raw	kg	1,11E+01	1,11E+01	1,11E+01	1,11E+01	1,02E+01	1,02E+01	1,26E+01	1,26E+01
Calcium chloride	Raw	kg	x	x	1,09E-13	1,09E-13	x	x	x	x
Carbon dioxide, in air	Raw	kg	2,54E+02	2,54E+02	2,19E+02	2,19E+02	1,77E+02	1,77E+02	1,77E+02	1,77E+02
Carbon, in organic matter, in soil	Raw	kg	2,54E-02	2,54E-02	2,53E-02	2,53E-02	2,44E-02	2,44E-02	2,44E-02	2,44E-02
Chromium	Raw	kg	3,06E-02	3,06E-02	2,53E-02	2,53E-02	1,99E-02	1,99E-02	2,62E-02	2,62E-02
Chrysotile	Raw	kg	3,31E-05	3,31E-05	4,34E-05	4,34E-05	1,86E-05	1,86E-05	9,72E-05	9,72E-05
Cinnabar	Raw	kg	4,19E-06	4,19E-06	5,18E-06	5,18E-06	2,82E-06	2,82E-06	1,01E-05	1,01E-05
Clay	Raw	kg	3,84E+00	3,84E+00	3,82E+00	3,82E+00	3,71E+00	3,71E+00	7,21E+00	7,21E+00
Clay, bentonite	Raw	kg	3,00E-02	3,00E-02	2,54E-02	2,54E-02	2,42E-02	2,42E-02	2,46E-02	2,46E-02
Coal, brown	Raw	kg	1,32E+01	1,32E+01	9,45E+00	9,45E+00	1,12E+01	1,12E+01	1,32E+01	1,32E+01
Coal, hard	Raw	kg	1,14E+01	1,14E+01	8,89E+00	8,89E+00	9,25E+00	9,25E+00	9,87E+00	9,87E+00
Cobalt	Raw	kg	4,06E-02	4,06E-02	3,49E-02	3,49E-02	1,29E-07	1,29E-07	2,22E-05	2,22E-05
Colemanite	Raw	kg	3,46E-04	3,46E-04	2,73E-04	2,73E-04	2,30E-04	2,30E-04	3,37E+00	3,37E+00
Copper	Raw	kg	x	x	1,76E-07	1,76E-07	x	x	x	x
Copper, 0.99% in sulfide, Cu 0.36% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	4,47E-03	4,47E-03	4,21E-03	4,21E-03	4,34E-03	4,34E-03	3,84E-03	3,84E-03
Copper, 1.18% in sulfide, Cu 0.39% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	2,15E-02	2,15E-02	2,05E-02	2,05E-02	2,40E-02	2,40E-02	2,11E-02	2,11E-02
Copper, 1.42% in sulfide, Cu 0.81% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	5,70E-03	5,70E-03	5,43E-03	5,43E-03	6,36E-03	6,36E-03	5,60E-03	5,60E-03
Copper, 2.19% in sulfide, Cu 1.83% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	2,84E-02	2,84E-02	2,70E-02	2,70E-02	3,16E-02	3,16E-02	2,79E-02	2,79E-02
Diatomite	Raw	kg	1,18E-08	1,18E-08	7,77E-09	7,77E-09	6,43E-09	6,43E-09	6,69E-09	6,69E-09
Dolomite	Raw	kg	1,84E-01	1,84E-01	1,84E-01	1,84E-01	1,83E-01	1,83E-01	1,83E-01	1,83E-01

Energy, from coal	Raw	MJ	x	x	5,07E-01	5,07E-01	x	x	x	x
Energy, from coal, brown	Raw	MJ	x	x	2,02E-01	2,02E-01	x	x	x	x
Energy, from gas, natural	Raw	MJ	x	x	2,12E+00	2,12E+00	x	x	x	x
Energy, from oil	Raw	MJ	x	x	5,70E-01	5,70E-01	x	x	x	x
Energy, from peat	Raw	MJ	x	x	5,06E-04	5,06E-04	x	x	x	x
Energy, from uranium	Raw	MJ	x	x	2,67E-01	2,67E-01	x	x	x	x
Energy, from wood	Raw	MJ	x	x	9,56E-06	9,56E-06	x	x	x	x
Energy, geothermal, converted	Raw	MJ	x	x	4,48E-04	4,48E-04	x	x	x	x
Energy, gross calorific value, in biomass	Raw	MJ	2,32E+03	2,32E+03	2,43E+03	2,43E+03	1,99E+03	1,99E+03	1,99E+03	1,99E+03
Energy, gross calorific value, in biomass, primary forest	Raw	MJ	1,76E+00	1,76E+00	1,75E+00	1,75E+00	1,69E+00	1,69E+00	1,69E+00	1,69E+00
Energy, kinetic (in wind), converted	Raw	MJ	1,39E+00	1,39E+00	-2,73E-01	-2,73E-01	4,66E-01	4,66E-01	1,05E+00	1,05E+00
Energy, potential (in hydropower reservoir), converted	Raw	MJ	8,02E+01	8,02E+01	7,03E+01	7,03E+01	9,09E+01	9,09E+01	7,89E+01	7,89E+01
Energy, solar, converted	Raw	MJ	6,84E-02	6,84E-02	4,79E-02	4,79E-02	5,07E-02	5,07E-02	6,36E-02	6,36E-02
Feldspar	Raw	kg	3,38E-04	3,38E-04	3,38E-04	3,38E-04	3,38E-04	3,38E-04	3,38E-04	3,38E-04
Fluorine, 4.5% in apatite, 1% in crude ore, in ground	Raw	kg	1,21E-03	1,21E-03	2,07E-03	2,07E-03	1,59E-04	1,59E-04	1,60E-04	1,60E-04
Fluorine, 4.5% in apatite, 3% in crude ore, in ground	Raw	kg	2,64E-01	2,64E-01	1,87E-01	1,87E-01	2,91E-04	2,91E-04	2,92E-04	2,92E-04
Fluorspar	Raw	kg	3,51E-02	3,51E-02	3,42E-02	3,42E-02	6,06E-03	6,06E-03	3,95E-02	3,95E-02
Gallium	Raw	kg	1,83E-10	1,83E-10	1,17E-10	1,17E-10	1,36E-10	1,36E-10	1,72E-10	1,72E-10
Gas, mine, off-gas, process, coal mining/m3	Raw	m3	1,24E-01	1,24E-01	1,02E-01	1,02E-01	1,12E-01	1,12E-01	1,17E-01	1,17E-01
Gas, natural/m3	Raw	m3	1,29E+01	1,29E+01	1,14E+01	1,14E+01	8,70E+00	8,70E+00	1,33E+01	1,33E+01
Gold	Raw	kg	1,68E-07	1,68E-07	1,62E-07	1,62E-07	1,07E-07	1,07E-07	1,90E-07	1,90E-07
Gold, Au 1.1E-4%, Ag 4.2E-3%, in ore, in ground	Raw	kg	7,67E-08	7,67E-08	7,36E-08	7,36E-08	4,88E-08	4,88E-08	8,67E-08	8,67E-08
Gold, Au 1.3E-4%, Ag 4.6E-5%, in ore, in ground	Raw	kg	1,41E-07	1,41E-07	1,35E-07	1,35E-07	8,94E-08	8,94E-08	1,59E-07	1,59E-07
Gold, Au 2.1E-4%, Ag 2.1E-4%, in ore, in ground	Raw	kg	2,57E-07	2,57E-07	2,47E-07	2,47E-07	1,64E-07	1,64E-07	2,91E-07	2,91E-07
Gold, Au 4.3E-4%, in ore, in ground	Raw	kg	6,37E-08	6,37E-08	6,12E-08	6,12E-08	4,05E-08	4,05E-08	7,20E-08	7,20E-08
Gold, Au 4.9E-5%, in ore, in ground	Raw	kg	1,53E-07	1,53E-07	1,47E-07	1,47E-07	9,71E-08	9,71E-08	1,73E-07	1,73E-07

Gold, Au 6.7E-4%, in ore, in ground	Raw	kg	2,36E-07	2,36E-07	2,27E-07	2,27E-07	1,50E-07	1,50E-07	2,67E-07	2,67E-07
Gold, Au 7.1E-4%, in ore, in ground	Raw	kg	2,67E-07	2,67E-07	2,56E-07	2,56E-07	1,69E-07	1,69E-07	3,01E-07	3,01E-07
Gold, Au 9.7E-4%, Ag 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	1,60E-08	1,60E-08	1,53E-08	1,53E-08	1,02E-08	1,02E-08	1,81E-08	1,81E-08
Granite	Raw	kg	3,34E-09	3,34E-09	3,32E-09	3,32E-09	1,41E-10	1,41E-10	1,44E-10	1,44E-10
Gravel	Raw	kg	8,28E+01	8,28E+01	8,19E+01	8,19E+01	8,06E+01	8,06E+01	8,20E+01	8,20E+01
Gypsum	Raw	kg	9,22E-04	9,22E-04	9,28E-04	9,28E-04	1,76E-03	1,76E-03	9,29E-04	9,29E-04
Indium	Raw	kg	5,23E-06	5,23E-06	5,08E-06	5,08E-06	5,04E-06	5,04E-06	5,03E-06	5,03E-06
Iodine	Raw	kg	7,12E-04	7,12E-04	7,85E-05	7,85E-05	2,61E-06	2,61E-06	2,60E-06	2,60E-06
Iron	Raw	kg	1,89E+00	1,89E+00	1,61E+00	1,61E+00	1,55E+00	1,55E+00	1,52E+00	1,52E+00
Kaolinite	Raw	kg	6,67E-04	6,67E-04	6,80E-04	6,80E-04	6,25E-04	6,25E-04	5,02E-04	5,02E-04
Kieserite	Raw	kg	7,36E-06	7,36E-06	7,43E-06	7,43E-06	5,01E-06	5,01E-06	4,70E-06	4,70E-06
Lead	Raw	kg	2,65E-03	2,65E-03	1,98E-03	1,98E-03	1,70E-03	1,70E-03	1,65E-03	1,65E-03
Lithium	Raw	kg	1,26E-05	1,26E-05	2,26E-06	2,26E-06	5,19E-09	5,19E-09	5,00E-09	5,00E-09
Magnesite	Raw	kg	2,29E-02	2,29E-02	2,20E-02	2,20E-02	2,04E-02	2,04E-02	2,13E-02	2,13E-02
Magnesium	Raw	kg	4,09E-05	4,09E-05	4,07E-05	4,07E-05	4,06E-05	4,06E-05	4,07E-05	4,07E-05
Magnesium chloride	Raw	kg	x	x	2,23E-02	2,23E-02	x	x	x	x
Manganese	Raw	kg	8,28E-03	8,28E-03	7,56E-03	7,56E-03	7,00E-03	7,00E-03	7,53E-03	7,53E-03
Metamorphous rock, graphite containing	Raw	kg	1,56E-02	1,56E-02	3,68E-01	3,68E-01	2,98E-02	2,98E-02	1,57E-02	1,57E-02
Molybdenum	Raw	kg	2,00E-04	2,00E-04	1,98E-04	1,98E-04	1,81E-04	1,81E-04	1,95E-04	1,95E-04
Molybdenum, 0.010% in sulfide, Mo 8.2E-3% and Cu 1.83% in crude ore, in ground	Raw	kg	5,27E-04	5,27E-04	5,02E-04	5,02E-04	5,87E-04	5,87E-04	5,18E-04	5,18E-04
Molybdenum, 0.014% in sulfide, Mo 8.2E-3% and Cu 0.81% in crude ore, in ground	Raw	kg	7,49E-05	7,49E-05	7,13E-05	7,13E-05	8,35E-05	8,35E-05	7,35E-05	7,35E-05
Molybdenum, 0.022% in sulfide, Mo 8.2E-3% and Cu 0.36% in crude ore, in ground	Raw	kg	9,95E-05	9,95E-05	9,86E-05	9,86E-05	8,97E-05	8,97E-05	9,69E-05	9,69E-05
Molybdenum, 0.025% in sulfide, Mo 8.2E-3% and Cu 0.39% in crude ore, in ground	Raw	kg	2,74E-04	2,74E-04	2,61E-04	2,61E-04	3,06E-04	3,06E-04	2,69E-04	2,69E-04
Natural aggregate	Raw	kg	x	x	4,29E-04	4,29E-04	x	x	x	x
Nickel	Raw	kg	x	x	4,44E-08	4,44E-08	x	x	x	x
Nickel, 1.13% in sulfide, Ni 0.76% and Cu 0.76%	Raw	kg	1,23E-03	1,23E-03	1,17E-03	1,17E-03	6,93E-04	6,93E-04	7,47E-04	7,47E-04

in crude ore, in ground										
Nickel, 1.98% in silicates, 1.04% in crude ore, in ground	Raw	kg	8,31E-02	8,31E-02	6,88E-02	6,88E-02	5,61E-02	5,61E-02	7,01E-02	7,01E-02
Nitrogen, in air	Raw	kg	x	x	-6,55E-11	-6,55E-11	x	x	x	x
Occupation, arable	Raw	m2a	7,15E+01	7,15E+01	2,21E+01	2,21E+01	x	x	x	x
Occupation, arable, non-irrigated	Raw	m2a	-6,29E+00	-6,29E+00	-5,63E-01	-5,63E-01	2,74E-01	2,74E-01	2,73E-01	2,73E-01
Occupation, construction site	Raw	m2a	5,22E-02	5,22E-02	4,64E-02	4,64E-02	8,14E-03	8,14E-03	1,02E-02	1,02E-02
Occupation, dump site	Raw	m2a	1,34E-01	1,34E-01	1,16E-01	1,16E-01	9,68E-02	9,68E-02	9,81E-02	9,81E-02
Occupation, dump site, benthos	Raw	m2a	2,58E-03	2,58E-03	1,76E-03	1,76E-03	1,82E-03	1,82E-03	1,62E-03	1,62E-03
Occupation, forest, intensive	Raw	m2a	5,19E+00	5,19E+00	5,26E+00	5,26E+00	6,70E-01	6,70E-01	6,68E-01	6,68E-01
Occupation, forest, intensive, normal	Raw	m2a	5,71E+02	5,71E+02	5,71E+02	5,71E+02	5,70E+02	5,70E+02	5,70E+02	5,70E+02
Occupation, forest, intensive, short-cycle	Raw	m2a	4,42E-01	4,42E-01	4,39E-01	4,39E-01	4,25E-01	4,25E-01	4,25E-01	4,25E-01
Occupation, industrial area	Raw	m2a	1,79E-01	1,79E-01	1,68E-01	1,68E-01	1,68E-01	1,68E-01	1,65E-01	1,65E-01
Occupation, industrial area, benthos	Raw	m2a	5,29E-05	5,29E-05	4,63E-05	4,63E-05	4,68E-05	4,68E-05	4,84E-05	4,84E-05
Occupation, industrial area, built up	Raw	m2a	1,20E+00	1,20E+00	1,08E+00	1,08E+00	7,23E-01	7,23E-01	6,54E-01	6,54E-01
Occupation, industrial area, vegetation	Raw	m2a	7,82E-01	7,82E-01	7,81E-01	7,81E-01	8,01E-01	8,01E-01	7,90E-01	7,90E-01
Occupation, mineral extraction site	Raw	m2a	1,69E-01	1,69E-01	1,49E-01	1,49E-01	1,27E-01	1,27E-01	1,50E-01	1,50E-01
Occupation, permanent crop, fruit, intensive	Raw	m2a	6,35E-01	6,35E-01	6,35E-01	6,35E-01	6,24E-01	6,24E-01	6,24E-01	6,24E-01
Occupation, shrub land, sclerophyllous	Raw	m2a	9,66E-03	9,66E-03	9,51E-03	9,51E-03	8,33E-03	8,33E-03	9,97E-03	9,97E-03
Occupation, traffic area, rail embankment	Raw	m2a	2,68E-02	2,68E-02	2,59E-02	2,59E-02	1,76E-02	1,76E-02	2,07E-02	2,07E-02
Occupation, traffic area, rail network	Raw	m2a	2,96E-02	2,96E-02	2,87E-02	2,87E-02	1,94E-02	1,94E-02	2,29E-02	2,29E-02
Occupation, traffic area, road embankment	Raw	m2a	5,74E+00	5,74E+00	5,74E+00	5,74E+00	5,66E+00	5,66E+00	5,66E+00	5,66E+00
Occupation, traffic area, road network	Raw	m2a	5,44E-01	5,44E-01	5,37E-01	5,37E-01	5,23E-01	5,23E-01	5,28E-01	5,28E-01
Occupation, urban, discontinuously built	Raw	m2a	6,36E-02	6,36E-02	1,29E-02	1,29E-02	7,18E-04	7,18E-04	7,17E-04	7,17E-04
Occupation, water bodies, artificial	Raw	m2a	9,08E-02	9,08E-02	7,52E-02	7,52E-02	8,39E-02	8,39E-02	8,83E-02	8,83E-02
Occupation, water courses, artificial	Raw	m2a	7,16E-02	7,16E-02	6,05E-02	6,05E-02	7,62E-02	7,62E-02	6,63E-02	6,63E-02
Oil, crude	Raw	kg	1,95E+01	1,95E+01	1,72E+01	1,72E+01	1,18E+01	1,18E+01	1,57E+01	1,57E+01

Olivine	Raw	kg	2,61E-05	2,61E-05	2,46E-05	2,46E-05	1,03E-05	1,03E-05	2,73E-05	2,73E-05
Oxygen, in air	Raw	kg	x	x	-1,72E-04	-1,72E-04	x	x	x	x
Palladium	Raw	kg	x	x	2,22E-13	2,22E-13	x	x	x	x
Pd, Pd 2.0E-4%, Pt 4.8E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	3,81E-08	3,81E-08	3,53E-08	3,53E-08	4,33E-08	4,33E-08	3,36E-08	3,36E-08
Pd, Pd 7.3E-4%, Pt 2.5E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	9,15E-08	9,15E-08	8,48E-08	8,48E-08	1,04E-07	1,04E-07	8,08E-08	8,08E-08
Peat	Raw	kg	-5,94E-03	-5,94E-03	-1,32E-02	-1,32E-02	4,11E-03	4,11E-03	4,26E-03	4,26E-03
Phosphorus	Raw	kg	1,05E+00	1,05E+00	7,44E-01	7,44E-01	1,65E-03	1,65E-03	1,69E-03	1,69E-03
Phosphorus, 18% in apatite, 4% in crude ore, in ground	Raw	kg	4,83E-03	4,83E-03	8,27E-03	8,27E-03	6,35E-04	6,35E-04	6,41E-04	6,41E-04
Platinum	Raw	kg	x	x	2,67E-12	2,67E-12	x	x	x	x
Potassium chloride	Raw	kg	1,19E+00	1,19E+00	2,93E-01	2,93E-01	2,44E-02	2,44E-02	2,45E-02	2,45E-02
Pt, Pt 2.5E-4%, Pd 7.3E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	7,17E-10	7,17E-10	4,79E-10	4,79E-10	8,30E-10	8,30E-10	4,92E-10	4,92E-10
Pt, Pt 4.8E-4%, Pd 2.0E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	2,57E-09	2,57E-09	1,72E-09	1,72E-09	2,97E-09	2,97E-09	1,76E-09	1,76E-09
Pumice	Raw	kg	x	x	5,69E-09	5,69E-09	x	x	x	x
Rh, Rh 2.0E-5%, Pt 2.5E-4%, Pd 7.3E-4%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	5,55E-10	5,55E-10	4,77E-10	4,77E-10	7,81E-10	7,81E-10	3,96E-10	3,96E-10
Rh, Rh 2.4E-5%, Pt 4.8E-4%, Pd 2.0E-4%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	1,74E-09	1,74E-09	1,50E-09	1,50E-09	2,45E-09	2,45E-09	1,24E-09	1,24E-09
Rhenium	Raw	kg	1,36E-09	1,36E-09	1,28E-09	1,28E-09	1,17E-09	1,17E-09	1,17E-09	1,17E-09
Sand	Raw	kg	2,63E-03	2,63E-03	2,54E-03	2,54E-03	1,38E-03	1,38E-03	2,05E-03	2,05E-03
Shale	Raw	kg	1,64E-04	1,64E-04	1,51E-04	1,51E-04	3,92E-05	3,92E-05	1,62E-04	1,62E-04
Silver	Raw	kg	x	x	1,28E-11	1,28E-11	x	x	x	x
Silver, 0.007% in sulfide, Ag 0.004%, Pb, Zn, Cd, In, in ground	Raw	kg	1,71E-06	1,71E-06	1,64E-06	1,64E-06	1,09E-06	1,09E-06	1,93E-06	1,93E-06
Silver, 3.2ppm in sulfide, Ag 1.2ppm, Cu and Te, in crude ore, in ground	Raw	kg	1,22E-06	1,22E-06	1,17E-06	1,17E-06	7,78E-07	7,78E-07	1,38E-06	1,38E-06
Silver, Ag 2.1E-4%, Au 2.1E-4%, in ore, in ground	Raw	kg	1,13E-07	1,13E-07	1,08E-07	1,08E-07	7,18E-08	7,18E-08	1,27E-07	1,27E-07
Silver, Ag 4.2E-3%, Au 1.1E-4%, in ore, in ground	Raw	kg	2,57E-07	2,57E-07	2,46E-07	2,46E-07	1,64E-07	1,64E-07	2,90E-07	2,90E-07
Silver, Ag 4.6E-5%, Au 1.3E-4%, in ore, in ground	Raw	kg	2,52E-07	2,52E-07	2,41E-07	2,41E-07	1,61E-07	1,61E-07	2,85E-07	2,85E-07
Silver, Ag 9.7E-4%, Au 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	1,67E-07	1,67E-07	1,59E-07	1,59E-07	1,06E-07	1,06E-07	1,88E-07	1,88E-07

Slate	Raw	kg	x	x	9,58E-17	9,58E-17	x	x	x	x
Sodium chloride	Raw	kg	2,92E+00	2,92E+00	3,41E+00	3,41E+00	2,47E+00	2,47E+00	5,07E+00	5,07E+00
Sodium nitrate	Raw	kg	5,90E-09	5,90E-09	5,85E-09	5,85E-09	1,42E-09	1,42E-09	1,38E-09	1,38E-09
Sodium sulphate	Raw	kg	9,42E-03	9,42E-03	9,42E-03	9,42E-03	8,99E-04	8,99E-04	8,82E-04	8,82E-04
Soil	Raw	kg	3,75E+01	3,75E+01	2,34E+01	2,34E+01	8,47E+00	8,47E+00	8,47E+00	8,47E+00
Stibnite	Raw	kg	1,23E-09	1,23E-09	8,07E-10	8,07E-10	6,68E-10	6,68E-10	6,96E-10	6,96E-10
Sulfur	Raw	kg	3,85E-03	3,85E-03	3,96E-03	3,96E-03	2,79E-03	2,79E-03	7,26E-02	7,26E-02
Talc	Raw	kg	2,13E-03	2,13E-03	2,13E-03	2,13E-03	2,59E-04	2,59E-04	2,48E-04	2,48E-04
Tantalum	Raw	kg	1,35E-06	1,35E-06	1,29E-06	1,29E-06	8,59E-07	8,59E-07	1,52E-06	1,52E-06
Tellurium	Raw	kg	1,83E-07	1,83E-07	1,75E-07	1,75E-07	1,17E-07	1,17E-07	2,07E-07	2,07E-07
Tin	Raw	kg	6,20E-04	6,20E-04	6,27E-04	6,27E-04	6,07E-04	6,07E-04	1,31E-03	1,31E-03
TiO2, 54% in ilmenite, 2.6% in crude ore, in ground	Raw	kg	6,04E-02	6,04E-02	2,91E-01	2,91E-01	2,60E-02	2,60E-02	4,39E-02	4,39E-02
TiO2, 95% in rutile, 0.40% in crude ore, in ground	Raw	kg	1,82E-07	1,82E-07	1,70E-07	1,70E-07	1,60E-07	1,60E-07	1,64E-07	1,64E-07
Titanium	Raw	kg	x	x	3,93E-07	3,93E-07	x	x	x	x
Transformation, from arable	Raw	m2	2,49E+01	2,49E+01	4,58E+01	4,58E+01	5,05E-04	5,05E-04	3,98E-04	3,98E-04
Transformation, from arable, non-irrigated	Raw	m2	-4,08E+00	-4,08E+00	1,59E+01	1,59E+01	5,06E-01	5,06E-01	5,04E-01	5,04E-01
Transformation, from arable, non-irrigated, fallow	Raw	m2	2,33E-04	2,33E-04	2,15E-04	2,15E-04	1,54E-04	1,54E-04	1,20E-04	1,20E-04
Transformation, from dump site, inert material landfill	Raw	m2	1,28E-03	1,28E-03	1,26E-03	1,26E-03	1,25E-03	1,25E-03	1,34E-03	1,34E-03
Transformation, from dump site, residual material landfill	Raw	m2	5,55E-04	5,55E-04	4,46E-04	4,46E-04	2,79E-04	2,79E-04	2,60E-04	2,60E-04
Transformation, from dump site, sanitary landfill	Raw	m2	3,60E-05	3,60E-05	3,85E-05	3,85E-05	2,88E-05	2,88E-05	3,21E-05	3,21E-05
Transformation, from dump site, slag compartment	Raw	m2	5,89E-05	5,89E-05	1,57E-04	1,57E-04	1,08E-04	1,08E-04	3,66E-04	3,66E-04
Transformation, from forest	Raw	m2	2,39E-02	2,39E-02	2,18E-02	2,18E-02	2,06E-02	2,06E-02	2,05E-02	2,05E-02
Transformation, from forest, extensive	Raw	m2	4,55E+00	4,55E+00	4,54E+00	4,54E+00	4,51E+00	4,51E+00	4,51E+00	4,51E+00
Transformation, from forest, intensive, clear-cutting	Raw	m2	1,58E-02	1,58E-02	1,57E-02	1,57E-02	1,52E-02	1,52E-02	1,52E-02	1,52E-02
Transformation, from industrial area	Raw	m2	1,21E-04	1,21E-04	9,83E-05	9,83E-05	1,09E-04	1,09E-04	1,24E-04	1,24E-04
Transformation, from industrial area, benthos	Raw	m2	1,67E-07	1,67E-07	1,31E-07	1,31E-07	1,72E-07	1,72E-07	2,02E-07	2,02E-07

Transformation, from industrial area, built up	Raw	m2	1,64E-06	1,64E-06	2,94E-06	2,94E-06	2,21E-07	2,21E-07	2,22E-07	2,22E-07
Transformation, from industrial area, vegetation	Raw	m2	2,79E-06	2,79E-06	5,01E-06	5,01E-06	3,77E-07	3,77E-07	3,79E-07	3,79E-07
Transformation, from mineral extraction site	Raw	m2	1,09E-02	1,09E-02	1,02E-02	1,02E-02	8,82E-03	8,82E-03	9,10E-03	9,10E-03
Transformation, from pasture and meadow	Raw	m2	4,91E-01	4,91E-01	4,21E-01	4,21E-01	3,19E-03	3,19E-03	3,55E-03	3,55E-03
Transformation, from pasture and meadow, intensive	Raw	m2	-5,12E-01	-5,12E-01	-1,36E+00	-1,36E+00	4,13E-04	4,13E-04	4,11E-04	4,11E-04
Transformation, from sea and ocean	Raw	m2	2,61E-03	2,61E-03	1,79E-03	1,79E-03	1,85E-03	1,85E-03	1,69E-03	1,69E-03
Transformation, from shrub land, sclerophyllous	Raw	m2	2,30E-03	2,30E-03	3,50E-03	3,50E-03	2,09E-03	2,09E-03	2,36E-03	2,36E-03
Transformation, from tropical rain forest	Raw	m2	1,58E-02	1,58E-02	1,57E-02	1,57E-02	1,52E-02	1,52E-02	1,52E-02	1,52E-02
Transformation, from unknown	Raw	m2	4,24E-02	4,24E-02	4,17E-02	4,17E-02	4,35E-02	4,35E-02	4,21E-02	4,21E-02
Transformation, to arable	Raw	m2	2,49E+01	2,49E+01	4,58E+01	4,58E+01	1,23E-03	1,23E-03	1,29E-03	1,29E-03
Transformation, to arable, non-irrigated	Raw	m2	-4,11E+00	-4,11E+00	1,50E+01	1,50E+01	5,06E-01	5,06E-01	5,04E-01	5,04E-01
Transformation, to arable, non-irrigated, fallow	Raw	m2	2,65E-04	2,65E-04	2,46E-04	2,46E-04	1,79E-04	1,79E-04	1,55E-04	1,55E-04
Transformation, to dump site	Raw	m2	8,15E-04	8,15E-04	6,72E-04	6,72E-04	5,80E-04	5,80E-04	5,29E-04	5,29E-04
Transformation, to dump site, benthos	Raw	m2	2,58E-03	2,58E-03	1,76E-03	1,76E-03	1,82E-03	1,82E-03	1,62E-03	1,62E-03
Transformation, to dump site, inert material landfill	Raw	m2	1,28E-03	1,28E-03	1,26E-03	1,26E-03	1,25E-03	1,25E-03	1,34E-03	1,34E-03
Transformation, to dump site, residual material landfill	Raw	m2	5,55E-04	5,55E-04	4,47E-04	4,47E-04	2,80E-04	2,80E-04	2,60E-04	2,60E-04
Transformation, to dump site, sanitary landfill	Raw	m2	3,60E-05	3,60E-05	3,85E-05	3,85E-05	2,88E-05	2,88E-05	3,21E-05	3,21E-05
Transformation, to dump site, slag compartment	Raw	m2	5,89E-05	5,89E-05	1,57E-04	1,57E-04	1,08E-04	1,08E-04	3,66E-04	3,66E-04
Transformation, to forest	Raw	m2	2,54E-03	2,54E-03	2,49E-03	2,49E-03	2,18E-03	2,18E-03	2,51E-03	2,51E-03
Transformation, to forest, intensive	Raw	m2	3,46E-02	3,46E-02	3,51E-02	3,51E-02	4,46E-03	4,46E-03	4,45E-03	4,45E-03
Transformation, to forest, intensive, clear-cutting	Raw	m2	1,58E-02	1,58E-02	1,57E-02	1,57E-02	1,52E-02	1,52E-02	1,52E-02	1,52E-02
Transformation, to forest, intensive, normal	Raw	m2	4,46E+00	4,46E+00	4,46E+00	4,46E+00	4,45E+00	4,45E+00	4,45E+00	4,45E+00
Transformation, to forest, intensive, short-cycle	Raw	m2	1,58E-02	1,58E-02	1,57E-02	1,57E-02	1,52E-02	1,52E-02	1,52E-02	1,52E-02
Transformation, to heterogeneous, agricultural	Raw	m2	8,03E-04	8,03E-04	6,98E-04	6,98E-04	6,36E-04	6,36E-04	6,32E-04	6,32E-04
Transformation, to industrial area	Raw	m2	3,92E-03	3,92E-03	3,78E-03	3,78E-03	3,84E-03	3,84E-03	3,82E-03	3,82E-03
Transformation, to industrial area, benthos	Raw	m2	3,32E-05	3,32E-05	3,33E-05	3,33E-05	3,23E-05	3,23E-05	6,79E-05	6,79E-05

Transformation, to industrial area, built up	Raw	m2	1,28E-02	1,28E-02	1,28E-02	1,28E-02	1,41E-02	1,41E-02	1,28E-02	1,28E-02
Transformation, to industrial area, vegetation	Raw	m2	1,59E-02	1,59E-02	1,59E-02	1,59E-02	1,63E-02	1,63E-02	1,61E-02	1,61E-02
Transformation, to mineral extraction site	Raw	m2	2,89E-02	2,89E-02	2,62E-02	2,62E-02	2,35E-02	2,35E-02	2,35E-02	2,35E-02
Transformation, to pasture and meadow	Raw	m2	1,67E-03	1,67E-03	1,21E-03	1,21E-03	4,95E-05	4,95E-05	5,63E-05	5,63E-05
Transformation, to permanent crop, fruit, intensive	Raw	m2	8,94E-03	8,94E-03	8,94E-03	8,94E-03	8,79E-03	8,79E-03	8,79E-03	8,79E-03
Transformation, to sea and ocean	Raw	m2	1,67E-07	1,67E-07	1,31E-07	1,31E-07	1,72E-07	1,72E-07	2,02E-07	2,02E-07
Transformation, to shrub land, sclerophyllous	Raw	m2	1,93E-03	1,93E-03	1,90E-03	1,90E-03	1,67E-03	1,67E-03	1,99E-03	1,99E-03
Transformation, to traffic area, rail embankment	Raw	m2	6,23E-05	6,23E-05	6,04E-05	6,04E-05	4,09E-05	4,09E-05	4,81E-05	4,81E-05
Transformation, to traffic area, rail network	Raw	m2	6,85E-05	6,85E-05	6,64E-05	6,64E-05	4,50E-05	4,50E-05	5,29E-05	5,29E-05
Transformation, to traffic area, road embankment	Raw	m2	4,47E-02	4,47E-02	4,47E-02	4,47E-02	4,42E-02	4,42E-02	4,42E-02	4,42E-02
Transformation, to traffic area, road network	Raw	m2	5,80E-03	5,80E-03	5,69E-03	5,69E-03	5,55E-03	5,55E-03	5,63E-03	5,63E-03
Transformation, to unknown	Raw	m2	7,32E-03	7,32E-03	7,31E-03	7,31E-03	7,28E-03	7,28E-03	7,63E-03	7,63E-03
Transformation, to urban, discontinuously built	Raw	m2	1,27E-03	1,27E-03	2,57E-04	2,57E-04	1,43E-05	1,43E-05	1,43E-05	1,43E-05
Transformation, to water bodies, artificial	Raw	m2	1,07E-03	1,07E-03	9,72E-04	9,72E-04	1,01E-03	1,01E-03	1,05E-03	1,05E-03
Transformation, to water courses, artificial	Raw	m2	8,41E-04	8,41E-04	7,16E-04	7,16E-04	9,11E-04	9,11E-04	7,90E-04	7,90E-04
Ulexite	Raw	kg	3,30E-06	3,30E-06	2,19E-07	2,19E-07	1,36E-06	1,36E-06	2,77E-06	2,77E-06
Uranium	Raw	kg	6,80E-04	6,80E-04	5,22E-04	5,22E-04	5,56E-04	5,56E-04	6,48E-04	6,48E-04
Vermiculite	Raw	kg	1,78E-05	1,78E-05	2,58E-05	2,58E-05	6,63E-06	6,63E-06	1,93E-05	1,93E-05
Volume occupied, final repository for low-active radioactive waste	Raw	m3	1,29E-06	1,29E-06	9,71E-07	9,71E-07	1,10E-06	1,10E-06	1,25E-06	1,25E-06
Volume occupied, final repository for radioactive waste	Raw	m3	3,23E-07	3,23E-07	2,42E-07	2,42E-07	2,77E-07	2,77E-07	3,15E-07	3,15E-07
Volume occupied, reservoir	Raw	m3y	1,29E+00	1,29E+00	1,12E+00	1,12E+00	1,45E+00	1,45E+00	1,29E+00	1,29E+00
Volume occupied, underground deposit	Raw	m3	4,91E-04	4,91E-04	4,91E-04	4,91E-04	9,65E-04	9,65E-04	4,91E-04	4,91E-04
Water, cooling, unspecified natural origin/m3	Raw	m3	2,65E+00	2,65E+00	2,58E+00	2,58E+00	1,52E+00	1,52E+00	2,53E+00	2,53E+00
Water, lake	Raw	m3	1,88E-02	1,88E-02	2,72E-02	2,72E-02	7,00E-03	7,00E-03	2,04E-02	2,04E-02
Water, rain	Raw	m3	3,34E-01	3,34E-01	x	x	x	x	x	x
Water, river	Raw	m3	1,03E+00	1,03E+00	6,29E+00	6,29E+00	8,61E-01	8,61E-01	9,00E-01	9,00E-01

Water, salt, ocean	Raw	m3	5,52E-02	5,52E-02	4,42E-02	4,42E-02	4,76E-02	4,76E-02	5,60E-02	5,60E-02
Water, salt, sole	Raw	m3	1,32E+00	1,32E+00	2,83E-01	2,83E-01	1,02E-02	1,02E-02	9,71E-03	9,71E-03
Water, turbine use, unspecified natural origin	Raw	m3	6,94E+02	6,94E+02	6,01E+02	6,01E+02	6,96E+02	6,96E+02	6,06E+02	6,06E+02
Water, unspecified natural origin/kg	Raw	kg	x	x	2,69E+00	2,69E+00	x	x	x	x
Water, unspecified natural origin/m3	Raw	m3	7,04E-01	7,04E-01	6,45E-01	6,45E-01	4,76E-01	4,76E-01	5,89E-01	5,89E-01
Water, well, in ground	Raw	m3	2,13E-01	2,13E-01	2,18E-01	2,18E-01	1,62E-01	1,62E-01	1,84E-01	1,84E-01
Wood, hard, standing	Raw	m3	3,30E-02	3,30E-02	3,29E-02	3,29E-02	3,31E-02	3,31E-02	3,29E-02	3,29E-02
Wood, primary forest, standing	Raw	m3	1,63E-04	1,63E-04	1,62E-04	1,62E-04	1,57E-04	1,57E-04	1,57E-04	1,57E-04
Wood, soft, standing	Raw	m3	1,71E-01	1,71E-01	1,71E-01	1,71E-01	1,68E-01	1,68E-01	1,68E-01	1,68E-01
Wood, unspecified, standing/m3	Raw	m3	1,07E-06	1,07E-06	1,05E-06	1,05E-06	7,89E-07	7,89E-07	3,96E-06	3,96E-06
Zinc	Raw	kg	9,03E-01	9,03E-01	9,01E-01	9,01E-01	1,68E+00	1,68E+00	9,01E-01	9,01E-01
Zirconium	Raw	kg	1,84E-06	1,84E-06	1,76E-06	1,76E-06	1,17E-06	1,17E-06	2,08E-06	2,08E-06
1-Butanol	Air	kg	1,62E-07	1,62E-07	2,17E-08	2,17E-08	5,08E-10	5,08E-10	5,09E-10	5,09E-10
1-Pentanol	Air	kg	2,37E-07	2,37E-07	4,27E-08	4,27E-08	9,81E-11	9,81E-11	9,46E-11	9,46E-11
1-Pentene	Air	kg	1,79E-07	1,79E-07	3,23E-08	3,23E-08	7,42E-11	7,42E-11	7,15E-11	7,15E-11
1-Propanol	Air	kg	5,18E-07	5,18E-07	1,50E-07	1,50E-07	5,03E-09	5,03E-09	5,16E-09	5,16E-09
1,4-Butanediol	Air	kg	7,14E-07	7,14E-07	7,38E-08	7,38E-08	3,41E-09	3,41E-09	3,63E-09	3,63E-09
2-Aminopropanol	Air	kg	1,69E-07	1,69E-07	2,92E-08	2,92E-08	6,96E-11	6,96E-11	6,95E-11	6,95E-11
2-Butene, 2-methyl-	Air	kg	3,98E-11	3,98E-11	7,16E-12	7,16E-12	1,65E-14	1,65E-14	1,58E-14	1,58E-14
2-Methyl-1-propanol	Air	kg	4,21E-07	4,21E-07	9,71E-08	9,71E-08	6,08E-10	6,08E-10	6,01E-10	6,01E-10
2-Nitrobenzoic acid	Air	kg	3,58E-07	3,58E-07	2,67E-08	2,67E-08	1,26E-10	1,26E-10	1,25E-10	1,25E-10
2-Propanol	Air	kg	1,01E-05	1,01E-05	9,26E-06	9,26E-06	5,30E-06	5,30E-06	9,42E-06	9,42E-06
Acenaphthene	Air	kg	1,28E-10	1,28E-10	6,10E-11	6,10E-11	-1,15E-10	-1,15E-10	-1,31E-10	-1,31E-10
Acetaldehyde	Air	kg	1,35E-04	1,35E-04	5,23E-04	5,23E-04	1,06E-04	1,06E-04	3,36E-04	3,36E-04
Acetic acid	Air	kg	1,78E-03	1,78E-03	6,33E-03	6,33E-03	2,55E-03	2,55E-03	4,32E-03	4,32E-03
Acetone	Air	kg	9,49E-05	9,49E-05	8,99E-05	8,99E-05	8,32E-05	8,32E-05	8,95E-05	8,95E-05

Acetonitrile	Air	kg	1,72E-05	1,72E-05	1,71E-05	1,71E-05	1,65E-05	1,65E-05	1,65E-05	1,65E-05
Acidity, unspecified	Air	kg	x	x	1,49E-09	1,49E-09	x	x	x	x
Acrolein	Air	kg	2,94E-07	2,94E-07	2,74E-07	2,74E-07	3,28E-08	3,28E-08	2,39E-08	2,39E-08
Acrylic acid	Air	kg	2,16E-08	2,16E-08	2,07E-08	2,07E-08	1,37E-08	1,37E-08	2,44E-08	2,44E-08
Actinides, radioactive, unspecified	Air	Bq	9,90E-01	9,90E-01	8,54E-01	8,54E-01	7,16E-02	7,16E-02	4,31E-02	4,31E-02
Aerosols, radioactive, unspecified	Air	Bq	2,95E-01	2,95E-01	2,25E-01	2,25E-01	2,35E-01	2,35E-01	2,66E-01	2,66E-01
Aldehydes, unspecified	Air	kg	3,38E-06	3,38E-06	3,08E-06	3,08E-06	1,24E-06	1,24E-06	7,64E-06	7,64E-06
Aluminium	Air	kg	5,82E-03	6,35E-03	5,34E-03	5,74E-03	7,13E-03	7,58E-03	4,80E-03	5,30E-03
Ammonia	Air	kg	7,00E-01	7,00E-01	8,34E-02	8,34E-02	2,31E-02	2,31E-02	2,30E-02	2,30E-02
Ammonium carbonate	Air	kg	2,56E-07	2,56E-07	2,95E-07	2,95E-07	2,53E-07	2,53E-07	2,64E-07	2,64E-07
Ammonium, ion	Air	kg	x	x	1,33E-12	1,33E-12	x	x	x	x
Aniline	Air	kg	1,19E-06	1,19E-06	7,42E-08	7,42E-08	1,08E-08	1,08E-08	1,08E-08	1,08E-08
Anthracene	Air	kg	x	x	3,26E-12	3,26E-12	x	x	x	x
Anthranilic acid	Air	kg	1,74E-07	1,74E-07	2,00E-08	2,00E-08	9,17E-11	9,17E-11	9,15E-11	9,15E-11
Antimony	Air	kg	2,36E-06	2,41E-06	2,23E-06	2,27E-06	2,51E-06	2,55E-06	2,57E-04	2,57E-04
Antimony-124	Air	Bq	4,79E-06	4,79E-06	4,40E-06	4,40E-06	3,97E-06	3,97E-06	4,30E-06	4,30E-06
Antimony-125	Air	Bq	5,00E-05	5,00E-05	4,48E-05	4,48E-05	4,15E-05	4,15E-05	4,49E-05	4,49E-05
Argon-41	Air	Bq	8,01E+01	8,01E+01	4,44E+01	4,44E+01	5,78E+01	5,78E+01	7,66E+01	7,66E+01
Arsenic	Air	kg	2,86E-05	3,14E-05	2,75E-05	2,96E-05	3,75E-05	3,99E-05	1,81E-04	1,83E-04
Arsenic trioxide	Air	kg	x	x	1,60E-14	1,60E-14	x	x	x	x
Arsine	Air	kg	2,51E-13	2,51E-13	1,57E-12	1,57E-12	1,60E-13	1,60E-13	2,84E-13	2,84E-13
Barium	Air	kg	9,47E-06	1,25E-05	8,56E-06	1,09E-05	7,98E-06	1,05E-05	1,04E-05	1,33E-05
Barium-140	Air	Bq	3,25E-03	3,25E-03	2,92E-03	2,92E-03	2,70E-03	2,70E-03	2,92E-03	2,92E-03
Benzal chloride	Air	kg	6,46E-13	6,46E-13	5,76E-13	5,76E-13	2,71E-13	2,71E-13	1,46E-13	1,46E-13
Benzaldehyde	Air	kg	7,66E-08	7,66E-08	7,68E-08	7,68E-08	9,39E-09	9,39E-09	6,99E-09	6,99E-09
Benzene	Air	kg	1,69E-03	1,69E-03	1,51E-03	1,51E-03	1,24E-03	1,24E-03	4,09E-03	4,09E-03

Benzene, 1-methyl-2-nitro-	Air	kg	3,09E-07	3,09E-07	2,30E-08	2,30E-08	1,09E-10	1,09E-10	1,08E-10	1,08E-10
Benzene, 1,2-dichloro-	Air	kg	1,25E-06	1,25E-06	-2,74E-08	-2,74E-08	2,34E-09	2,34E-09	2,33E-09	2,33E-09
Benzene, 1,3,5-trimethyl-	Air	kg	x	x	7,94E-15	7,94E-15	x	x	x	x
Benzene, ethyl-	Air	kg	5,02E-05	5,02E-05	4,52E-05	4,52E-05	2,66E-05	2,66E-05	2,91E-05	2,91E-05
Benzene, hexachloro-	Air	kg	1,02E-07	1,02E-07	1,06E-07	1,06E-07	8,29E-08	8,29E-08	9,30E-08	9,30E-08
Benzene, pentachloro-	Air	kg	2,19E-07	2,19E-07	2,32E-07	2,32E-07	1,76E-07	1,76E-07	1,99E-07	1,99E-07
Benzo(a)anthracene	Air	kg	x	x	1,64E-12	1,64E-12	x	x	x	x
Benzo(a)pyrene	Air	kg	2,53E-06	2,53E-06	2,30E-06	2,30E-06	3,24E-06	3,24E-06	2,46E-06	2,46E-06
Benzo(b)fluoranthene	Air	kg	x	x	2,93E-12	2,93E-12	x	x	x	x
Benzo(g,h,i)perylene	Air	kg	x	x	1,46E-12	1,46E-12	x	x	x	x
Beryllium	Air	kg	7,35E-08	1,40E-07	7,08E-08	1,21E-07	5,25E-08	1,08E-07	7,06E-08	1,34E-07
Boron	Air	kg	3,73E-04	3,74E-04	2,82E-04	2,82E-04	3,24E-04	3,25E-04	3,74E-04	3,75E-04
Boron trifluoride	Air	kg	3,44E-15	3,44E-15	3,30E-15	3,30E-15	2,19E-15	2,19E-15	3,89E-15	3,89E-15
Bromine	Air	kg	6,27E-05	6,27E-05	5,47E-05	5,47E-05	5,55E-05	5,55E-05	6,10E-05	6,10E-05
Butadiene	Air	kg	4,75E-08	4,75E-08	3,12E-08	3,12E-08	2,27E-10	2,27E-10	3,43E-10	3,43E-10
Butane	Air	kg	9,14E-04	9,14E-04	7,55E-04	7,55E-04	6,96E-04	6,96E-04	6,98E-04	6,98E-04
Butene	Air	kg	1,97E-05	1,97E-05	1,50E-05	1,50E-05	1,29E-05	1,29E-05	1,22E-05	1,22E-05
Butyrolactone	Air	kg	1,29E-10	1,29E-10	1,24E-10	1,24E-10	8,23E-11	8,23E-11	1,46E-10	1,46E-10
Cadmium	Air	kg	8,74E-06	8,81E-06	8,63E-06	8,68E-06	9,13E-06	9,19E-06	5,88E-05	5,89E-05
Calcium	Air	kg	2,33E-03	2,50E-03	3,00E-03	3,13E-03	2,57E-03	2,72E-03	2,25E-03	2,41E-03
Carbon-14	Air	Bq	1,16E+03	1,16E+03	8,81E+02	8,81E+02	1,01E+03	1,01E+03	1,15E+03	1,15E+03
Carbon dioxide, biogenic	Air	kg	1,45E+02	1,45E+02	1,50E+02	1,50E+02	1,33E+02	1,33E+02	1,33E+02	1,33E+02
Carbon dioxide, fossil	Air	kg	1,29E+02	1,29E+02	1,15E+02	1,15E+02	7,68E+01	7,68E+01	9,70E+01	9,70E+01
Carbon dioxide, land transformation	Air	kg	2,46E-01	2,46E-01	1,42E+00	1,42E+00	2,36E-01	2,36E-01	2,37E-01	2,37E-01
Carbon disulfide	Air	kg	1,42E-03	1,42E-03	1,35E-03	1,35E-03	1,73E-03	1,73E-03	1,07E-03	1,07E-03
Carbon monoxide, biogenic	Air	kg	5,04E-02	5,04E-02	7,83E-02	7,83E-02	5,25E-02	5,25E-02	4,92E-02	4,92E-02

Carbon monoxide, fossil	Air	kg	3,99E-01	3,99E-01	3,78E-01	3,78E-01	3,68E-01	3,68E-01	3,77E-01	3,77E-01
Cerium-141	Air	Bq	7,89E-04	7,89E-04	7,07E-04	7,07E-04	6,54E-04	6,54E-04	7,08E-04	7,08E-04
Cesium-134	Air	Bq	3,78E-05	3,78E-05	1,12E-04	1,12E-04	3,13E-05	3,13E-05	3,39E-05	3,39E-05
Cesium-137	Air	Bq	6,70E-04	6,70E-04	7,61E-04	7,61E-04	5,55E-04	5,55E-04	6,01E-04	6,01E-04
Chloramine	Air	kg	1,14E-06	1,14E-06	1,95E-07	1,95E-07	4,89E-10	4,89E-10	4,76E-10	4,76E-10
Chloride	Air	kg	x	x	1,34E-08	1,34E-08	x	x	x	x
Chlorine	Air	kg	7,54E-04	7,60E-04	5,69E-04	5,74E-04	3,53E-04	3,59E-04	3,68E-03	3,69E-03
Chloroacetic acid	Air	kg	2,72E-06	2,72E-06	1,11E-06	1,11E-06	5,72E-08	5,72E-08	5,73E-08	5,73E-08
Chloroform	Air	kg	4,96E-06	4,96E-06	6,63E-07	6,63E-07	3,14E-08	3,14E-08	4,16E-08	4,16E-08
Chlorosilane, trimethyl-	Air	kg	4,41E-06	4,41E-06	4,41E-06	4,41E-06	4,40E-06	4,40E-06	4,41E-06	4,41E-06
Chlorosulfonic acid	Air	kg	1,58E-07	1,58E-07	-4,07E-08	-4,07E-08	8,54E-10	8,54E-10	8,52E-10	8,52E-10
Chromium	Air	kg	1,32E-04	1,32E-04	1,10E-04	1,10E-04	7,39E-05	7,39E-05	1,16E-04	1,16E-04
Chromium-51	Air	Bq	5,05E-05	5,05E-05	4,53E-05	4,53E-05	4,19E-05	4,19E-05	4,53E-05	4,53E-05
Chromium VI	Air	kg	2,78E-06	3,12E-06	2,31E-06	2,57E-06	1,82E-06	2,10E-06	2,40E-06	2,73E-06
Chromium, ion	Air	kg	x	x	4,70E-12	4,70E-12	x	x	x	x
Chrysene	Air	kg	x	x	4,03E-12	4,03E-12	x	x	x	x
Cobalt	Air	kg	6,95E-06	7,37E-06	6,37E-06	6,68E-06	4,93E-06	5,29E-06	5,49E-06	5,90E-06
Cobalt-58	Air	Bq	7,04E-05	7,04E-05	6,36E-05	6,36E-05	5,83E-05	5,83E-05	6,31E-05	6,31E-05
Cobalt-60	Air	Bq	6,22E-04	6,22E-04	5,70E-04	5,70E-04	5,15E-04	5,15E-04	5,58E-04	5,58E-04
Copper	Air	kg	1,34E-04	1,39E-04	1,26E-04	1,29E-04	1,06E-04	1,10E-04	1,07E-04	1,11E-04
Cumene	Air	kg	8,70E-04	8,70E-04	8,42E-04	8,42E-04	7,74E-04	7,74E-04	1,55E-03	1,55E-03
Cyanide	Air	kg	1,89E-04	1,89E-04	2,06E-04	2,06E-04	9,43E-05	9,43E-05	1,23E-04	1,23E-04
Cyanoacetic acid	Air	kg	1,29E-07	1,29E-07	-3,33E-08	-3,33E-08	6,99E-10	6,99E-10	6,98E-10	6,98E-10
Cyclohexane	Air	kg	x	x	6,93E-11	6,93E-11	x	x	x	x
Dibenz(a,h)anthracene	Air	kg	x	x	9,13E-13	9,13E-13	x	x	x	x
Diethanolamine	Air	kg	x	x	2,18E-17	2,18E-17	x	x	x	x

Diethylamine	Air	kg	7,79E-07	7,79E-07	5,31E-08	5,31E-08	4,82E-09	4,82E-09	4,81E-09	4,81E-09
Dimethyl malonate	Air	kg	1,62E-07	1,62E-07	-4,18E-08	-4,18E-08	8,77E-10	8,77E-10	8,75E-10	8,75E-10
Dinitrogen monoxide	Air	kg	7,24E-02	7,24E-02	2,49E-02	2,49E-02	2,95E-03	2,95E-03	5,36E-02	5,36E-02
Dioxin, 2,3,7,8 Tetrachlorodibenzo-p-	Air	kg	7,60E-10	7,60E-10	8,02E-10	8,02E-10	6,47E-10	6,47E-10	6,87E-10	6,87E-10
Dipropylamine	Air	kg	3,70E-07	3,70E-07	1,70E-08	1,70E-08	3,04E-09	3,04E-09	3,03E-09	3,03E-09
Ethane	Air	kg	2,56E-03	2,56E-03	2,35E-03	2,35E-03	2,63E-03	2,63E-03	2,76E-03	2,76E-03
Ethane, 1,1-difluoro-, HFC-152a	Air	kg	2,38E-08	2,38E-08	1,52E-08	1,52E-08	1,77E-08	1,77E-08	2,24E-08	2,24E-08
Ethane, 1,1,1-trichloro-, HCFC-140	Air	kg	9,57E-09	9,57E-09	8,26E-09	8,26E-09	6,92E-10	6,92E-10	4,16E-10	4,16E-10
Ethane, 1,1,1,2-tetrafluoro-, HFC-134a	Air	kg	1,72E-05	1,72E-05	1,68E-05	1,68E-05	1,61E-05	1,61E-05	1,64E-05	1,64E-05
Ethane, 1,1,2-trichloro-1,2,2-trifluoro-, CFC-113	Air	kg	1,02E-09	1,02E-09	9,82E-10	9,82E-10	6,51E-10	6,51E-10	1,16E-09	1,16E-09
Ethane, 1,2-dichloro-	Air	kg	1,51E-05	1,51E-05	1,06E-05	1,06E-05	2,61E-06	2,61E-06	5,00E-06	5,00E-06
Ethane, 1,2-dichloro-1,1,2,2-tetrafluoro-, CFC-114	Air	kg	4,38E-07	4,38E-07	3,14E-07	3,14E-07	3,18E-07	3,18E-07	3,60E-07	3,60E-07
Ethane, hexafluoro-, HFC-116	Air	kg	1,61E-05	1,61E-05	1,60E-05	1,60E-05	2,51E-05	2,51E-05	1,61E-05	1,61E-05
Ethanol	Air	kg	3,41E-05	3,41E-05	5,22E-05	5,22E-05	2,38E-05	2,38E-05	2,64E-05	2,64E-05
Ethene	Air	kg	6,08E-04	6,08E-04	7,09E-04	7,09E-04	8,53E-04	8,53E-04	7,62E-04	7,62E-04
Ethene, chloro-	Air	kg	1,92E-06	1,92E-06	1,95E-06	1,95E-06	1,41E-06	1,41E-06	1,89E-06	1,89E-06
Ethene, tetrachloro-	Air	kg	6,19E-05	6,19E-05	6,19E-05	6,19E-05	6,19E-05	6,19E-05	6,19E-05	6,19E-05
Ethyl acetate	Air	kg	3,92E-05	3,92E-05	4,08E-05	4,08E-05	2,46E-05	2,46E-05	4,58E-05	4,58E-05
Ethyl cellulose	Air	kg	7,83E-08	7,83E-08	7,51E-08	7,51E-08	4,98E-08	4,98E-08	8,85E-08	8,85E-08
Ethylamine	Air	kg	1,57E-06	1,57E-06	1,02E-06	1,02E-06	1,19E-09	1,19E-09	1,16E-09	1,16E-09
Ethylene diamine	Air	kg	5,84E-07	5,84E-07	4,31E-08	4,31E-08	1,98E-09	1,98E-09	1,88E-09	1,88E-09
Ethylene oxide	Air	kg	2,08E-06	2,08E-06	2,30E-06	2,30E-06	2,00E-06	2,00E-06	1,56E-05	1,56E-05
Ethyne	Air	kg	6,22E-05	6,22E-05	1,52E-04	1,52E-04	3,18E-04	3,18E-04	6,47E-05	6,47E-05
Fluoranthene	Air	kg	x	x	1,06E-11	1,06E-11	x	x	x	x
Fluorene	Air	kg	x	x	3,37E-11	3,37E-11	x	x	x	x
Fluoride	Air	kg	x	x	1,89E-08	1,89E-08	x	x	x	x
Fluorine	Air	kg	2,05E-05	5,26E-05	2,07E-05	4,48E-05	1,98E-05	4,67E-05	1,96E-05	5,03E-05

Fluosilicic acid	Air	kg	1,88E-05	1,88E-05	1,87E-05	1,87E-05	2,93E-05	2,93E-05	1,87E-05	1,87E-05
Formaldehyde	Air	kg	4,78E-03	4,78E-03	4,77E-03	4,77E-03	4,72E-03	4,72E-03	4,74E-03	4,74E-03
Formamide	Air	kg	4,34E-07	4,34E-07	7,81E-08	7,81E-08	1,79E-10	1,79E-10	1,73E-10	1,73E-10
Formic acid	Air	kg	1,15E-04	1,15E-04	1,14E-04	1,14E-04	1,10E-04	1,10E-04	1,10E-04	1,10E-04
Furan	Air	kg	3,26E-05	3,26E-05	3,24E-05	3,24E-05	3,14E-05	3,14E-05	3,13E-05	3,13E-05
Heat, waste	Air	MJ	3,51E+03	3,51E+03	3,17E+03	3,17E+03	2,63E+03	2,63E+03	2,93E+03	2,93E+03
Helium	Air	kg	5,25E-05	5,25E-05	4,29E-05	4,29E-05	3,58E-05	3,58E-05	3,43E-05	3,43E-05
Heptane	Air	kg	1,64E-04	1,64E-04	1,39E-04	1,39E-04	1,29E-04	1,29E-04	1,21E-04	1,21E-04
Hexamethylene diamine	Air	kg	x	x	4,59E-14	4,59E-14	x	x	x	x
Hexane	Air	kg	-4,06E-03	-4,06E-03	-3,50E-03	-3,50E-03	8,41E-04	8,41E-04	8,18E-04	8,18E-04
Hydrocarbons, aliphatic, alkanes, cyclic	Air	kg	-5,93E-06	-5,93E-06	-4,34E-06	-4,34E-06	1,04E-05	1,04E-05	4,73E-05	4,73E-05
Hydrocarbons, aliphatic, alkanes, unspecified	Air	kg	1,21E-03	1,21E-03	3,46E-03	3,46E-03	1,44E-03	1,44E-03	2,24E-03	2,24E-03
Hydrocarbons, aliphatic, unsaturated	Air	kg	1,18E-03	1,18E-03	1,18E-03	1,18E-03	1,13E-03	1,13E-03	1,14E-03	1,14E-03
Hydrocarbons, aromatic	Air	kg	1,46E-03	1,46E-03	1,26E-03	1,26E-03	1,30E-04	1,30E-04	1,06E-03	1,06E-03
Hydrocarbons, chlorinated	Air	kg	5,72E-04	5,72E-04	5,87E-04	5,87E-04	1,08E-03	1,08E-03	5,70E-04	5,70E-04
Hydrogen	Air	kg	3,52E-03	3,52E-03	3,90E-03	3,90E-03	2,39E-03	2,39E-03	4,04E-03	4,04E-03
Hydrogen-3, Tritium	Air	Bq	6,47E+03	6,47E+03	4,86E+03	4,86E+03	5,44E+03	5,44E+03	6,20E+03	6,20E+03
Hydrogen bromide	Air	kg	x	x	1,35E-10	1,35E-10	x	x	x	x
Hydrogen chloride	Air	kg	8,38E-03	8,38E-03	7,82E-03	7,82E-03	7,32E-03	7,32E-03	8,59E-03	8,59E-03
Hydrogen cyanide	Air	kg	x	x	2,09E-09	2,09E-09	x	x	x	x
Hydrogen fluoride	Air	kg	1,41E-03	1,41E-03	1,18E-03	1,18E-03	1,36E-03	1,36E-03	1,38E-03	1,38E-03
Hydrogen iodide	Air	kg	x	x	1,45E-13	1,45E-13	x	x	x	x
Hydrogen peroxide	Air	kg	5,80E-08	5,80E-08	5,57E-08	5,57E-08	3,69E-08	3,69E-08	6,56E-08	6,56E-08
Hydrogen sulfide	Air	kg	6,04E-04	6,04E-04	5,74E-04	5,74E-04	6,94E-04	6,94E-04	6,37E-04	6,37E-04
Indeno(1,2,3-cd)pyrene	Air	kg	x	x	1,09E-12	1,09E-12	x	x	x	x
Iodine	Air	kg	1,99E-05	1,99E-05	1,49E-05	1,49E-05	1,76E-05	1,76E-05	2,03E-05	2,03E-05

Iodine-129	Air	Bq	1,10E+00	1,10E+00	8,24E-01	8,24E-01	9,66E-01	9,66E-01	1,10E+00	1,10E+00
Iodine-131	Air	Bq	3,12E+01	3,12E+01	1,68E+01	1,68E+01	2,24E+01	2,24E+01	2,98E+01	2,98E+01
Iodine-133	Air	Bq	1,31E-01	1,31E-01	1,12E-01	1,12E-01	4,34E-03	4,34E-03	4,66E-03	4,66E-03
Iodine-135	Air	Bq	2,75E-01	2,75E-01	2,36E-01	2,36E-01	2,42E-03	2,42E-03	2,55E-03	2,55E-03
Iron	Air	kg	1,47E-04	7,20E-04	1,50E-04	5,80E-04	1,30E-04	6,11E-04	1,86E-04	7,33E-04
Isocyanic acid	Air	kg	6,08E-07	6,08E-07	4,92E-07	4,92E-07	4,78E-07	4,78E-07	5,54E-07	5,54E-07
Isoprene	Air	kg	1,51E-06	1,51E-06	1,50E-06	1,50E-06	1,45E-06	1,45E-06	1,45E-06	1,45E-06
Isopropylamine	Air	kg	1,52E-06	1,52E-06	1,11E-06	1,11E-06	3,90E-10	3,90E-10	3,81E-10	3,81E-10
Krypton-85	Air	Bq	2,53E+02	2,53E+02	1,39E+02	1,39E+02	1,83E+02	1,83E+02	2,41E+02	2,41E+02
Krypton-85m	Air	Bq	5,08E+01	5,08E+01	1,06E+04	1,06E+04	4,16E+01	4,16E+01	4,58E+01	4,58E+01
Krypton-87	Air	Bq	1,34E+01	1,34E+01	1,09E+01	1,09E+01	1,08E+01	1,08E+01	1,22E+01	1,22E+01
Krypton-88	Air	Bq	1,61E+01	1,61E+01	1,36E+01	1,36E+01	1,31E+01	1,31E+01	1,46E+01	1,46E+01
Krypton-89	Air	Bq	6,05E+00	6,05E+00	5,36E+00	5,36E+00	5,00E+00	5,00E+00	5,44E+00	5,44E+00
Lactic acid	Air	kg	2,90E-07	2,90E-07	1,33E-08	1,33E-08	2,38E-09	2,38E-09	2,38E-09	2,38E-09
Lanthanum-140	Air	Bq	2,78E-04	2,78E-04	2,49E-04	2,49E-04	2,30E-04	2,30E-04	2,49E-04	2,49E-04
Lead	Air	kg	2,08E-04	2,13E-04	2,04E-04	2,07E-04	3,06E-04	3,10E-04	2,03E-04	2,08E-04
Lead-210	Air	Bq	1,45E+01	1,45E+01	1,13E+01	1,13E+01	6,50E+00	6,50E+00	7,68E+00	7,68E+00
Lead compounds	Air	kg	x	x	9,37E-15	9,37E-15	x	x	x	x
m-Xylene	Air	kg	4,33E-05	4,33E-05	4,40E-05	4,40E-05	4,16E-05	4,16E-05	4,16E-05	4,16E-05
Magnesium	Air	kg	2,65E-04	3,18E-04	2,76E-04	3,15E-04	2,40E-04	2,84E-04	2,87E-04	3,37E-04
Manganese	Air	kg	7,29E-05	8,48E-05	7,30E-05	8,19E-05	7,04E-05	8,03E-05	7,02E-05	8,15E-05
Manganese-54	Air	Bq	2,59E-05	2,59E-05	2,32E-05	2,32E-05	2,15E-05	2,15E-05	2,32E-05	2,32E-05
Mercury	Air	kg	7,29E-06	7,33E-06	7,14E-06	7,17E-06	9,09E-06	9,12E-06	8,56E-06	8,59E-06
Methane	Air	kg	x	x	1,04E-03	1,04E-03	x	x	x	x
Methane, biogenic	Air	kg	3,09E-02	3,09E-02	4,71E-02	4,71E-02	4,53E-03	4,53E-03	4,06E-03	4,06E-03
Methane, bromo-, Halon 1001	Air	kg	1,48E-13	1,48E-13	1,32E-13	1,32E-13	6,21E-14	6,21E-14	3,34E-14	3,34E-14

Methane, bromochlorodifluoro-, Halon 1211	Air	kg	5,49E-07	5,49E-07	4,96E-07	4,96E-07	5,54E-07	5,54E-07	6,30E-07	6,30E-07
Methane, bromotrifluoro-, Halon 1301	Air	kg	5,33E-07	5,33E-07	4,51E-07	4,51E-07	3,90E-07	3,90E-07	3,71E-07	3,71E-07
Methane, chlorodifluoro-, HCFC-22	Air	kg	1,72E-06	1,72E-06	1,45E-06	1,45E-06	1,68E-06	1,68E-06	1,96E-06	1,96E-06
Methane, chlorotrifluoro-, CFC-13	Air	kg	x	x	4,66E-10	4,66E-10	x	x	x	x
Methane, dichloro-, HCC-30	Air	kg	1,26E-06	1,26E-06	2,89E-07	2,89E-07	7,64E-08	7,64E-08	7,33E-08	7,33E-08
Methane, dichlorodifluoro-, CFC-12	Air	kg	5,28E-08	5,28E-08	2,36E-07	2,36E-07	2,05E-08	2,05E-08	4,02E-08	4,02E-08
Methane, dichlorofluoro-, HCFC-21	Air	kg	7,04E-12	7,04E-12	7,02E-12	7,02E-12	4,50E-12	4,50E-12	7,92E-12	7,92E-12
Methane, fossil	Air	kg	3,32E-01	3,32E-01	3,02E-01	3,02E-01	2,05E-01	2,05E-01	2,89E-01	2,89E-01
Methane, monochloro-, R-40	Air	kg	3,08E-07	3,08E-07	3,09E-06	3,09E-06	7,29E-08	7,29E-08	3,06E-07	3,06E-07
Methane, tetrachloro-, CFC-10	Air	kg	1,02E-06	1,02E-06	6,42E-07	6,42E-07	1,59E-07	1,59E-07	3,88E-06	3,88E-06
Methane, tetrafluoro-, CFC-14	Air	kg	1,45E-04	1,45E-04	1,44E-04	1,44E-04	2,25E-04	2,25E-04	1,44E-04	1,44E-04
Methane, trichlorofluoro-, CFC-11	Air	kg	1,14E-11	1,14E-11	3,46E-09	3,46E-09	7,31E-12	7,31E-12	1,29E-11	1,29E-11
Methane, trifluoro-, HFC-23	Air	kg	2,24E-09	2,24E-09	2,23E-09	2,23E-09	1,43E-09	1,43E-09	2,52E-09	2,52E-09
Methanesulfonic acid	Air	kg	1,31E-07	1,31E-07	-3,37E-08	-3,37E-08	7,07E-10	7,07E-10	7,05E-10	7,05E-10
Methanol	Air	kg	1,91E-03	1,91E-03	3,47E-03	3,47E-03	2,03E-03	2,03E-03	2,77E-03	2,77E-03
Methyl acetate	Air	kg	8,29E-08	8,29E-08	6,18E-09	6,18E-09	2,91E-11	2,91E-11	2,90E-11	2,90E-11
Methyl acrylate	Air	kg	2,45E-08	2,45E-08	2,35E-08	2,35E-08	1,56E-08	1,56E-08	2,77E-08	2,77E-08
Methyl amine	Air	kg	1,28E-08	1,28E-08	-3,37E-08	-3,37E-08	1,91E-09	1,91E-09	1,93E-09	1,93E-09
Methyl borate	Air	kg	1,02E-07	1,02E-07	1,69E-08	1,69E-08	4,14E-11	4,14E-11	4,01E-11	4,01E-11
Methyl ethyl ketone	Air	kg	3,87E-05	3,87E-05	3,72E-05	3,72E-05	2,46E-05	2,46E-05	4,38E-05	4,38E-05
Methyl formate	Air	kg	1,15E-07	1,15E-07	2,07E-08	2,07E-08	1,08E-10	1,08E-10	1,53E-10	1,53E-10
Methyl lactate	Air	kg	3,18E-07	3,18E-07	1,46E-08	1,46E-08	2,61E-09	2,61E-09	2,61E-09	2,61E-09
Molybdenum	Air	kg	2,02E-06	2,94E-06	1,96E-06	2,65E-06	1,59E-06	2,36E-06	1,72E-06	2,59E-06
Monoethanolamine	Air	kg	1,33E-04	1,33E-04	1,27E-04	1,27E-04	1,27E-04	1,27E-04	1,28E-04	1,28E-04
Naphthalene	Air	kg	x	x	3,43E-10	3,43E-10	x	x	x	x
Nickel	Air	kg	1,33E-04	1,34E-04	1,24E-04	1,24E-04	8,08E-05	8,16E-05	1,16E-04	1,17E-04

Niobium-95	Air	Bq	3,07E-06	3,07E-06	2,75E-06	2,75E-06	2,55E-06	2,55E-06	2,76E-06	2,76E-06
Nitrate	Air	kg	1,80E-06	6,32E-06	1,39E-06	4,79E-06	1,62E-06	5,41E-06	1,68E-06	6,00E-06
Nitric oxide	Air	kg	x	x	1,01E-12	1,01E-12	x	x	x	x
Nitrobenzene	Air	kg	2,72E-06	2,72E-06	8,65E-08	8,65E-08	1,45E-08	1,45E-08	1,45E-08	1,45E-08
Nitrogen	Air	kg	x	x	4,75E-04	4,75E-04	x	x	x	x
Nitrogen oxides	Air	kg	4,76E-01	4,76E-01	3,93E-01	3,93E-01	3,30E-01	3,30E-01	3,86E-01	3,86E-01
NMVOC, non-methane volatile organic compounds, unspecified origin	Air	kg	1,66E-01	1,66E-01	1,54E-01	1,54E-01	1,39E-01	1,39E-01	1,57E-01	1,57E-01
Noble gases, radioactive, unspecified	Air	Bq	1,06E+07	1,06E+07	7,91E+06	7,91E+06	9,28E+06	9,28E+06	1,06E+07	1,06E+07
Octane	Air	kg	x	x	1,81E-08	1,81E-08	x	x	x	x
Oxygen	Air	kg	x	x	2,99E-05	2,99E-05	x	x	x	x
Ozone	Air	kg	1,47E-04	1,47E-04	1,29E-04	1,29E-04	1,93E-04	1,93E-04	1,97E-04	1,97E-04
PAH, polycyclic aromatic hydrocarbons	Air	kg	6,88E-05	6,88E-05	6,33E-05	6,33E-05	9,07E-05	9,07E-05	6,28E-05	6,28E-05
Palladium	Air	kg	x	x	3,01E-18	3,01E-18	x	x	x	x
Particulates, < 10 um	Air	kg	1,08E-08	1,08E-08	8,45E-07	8,45E-07	x	x	x	x
Particulates, < 2.5 um	Air	kg	7,44E-02	7,49E-02	6,43E-02	6,46E-02	6,03E-02	6,06E-02	6,22E-02	6,26E-02
Particulates, > 10 um	Air	kg	1,32E-01	1,34E-01	1,25E-01	1,26E-01	1,17E-01	1,17E-01	1,20E-01	1,21E-01
Particulates, > 2.5 um, and < 10um	Air	kg	8,99E-02	9,06E-02	8,70E-02	8,75E-02	8,00E-02	8,05E-02	8,36E-02	8,42E-02
Particulates, unspecified	Air	kg	2,04E-04	2,04E-04	1,75E-04	1,75E-04	x	x	x	x
Pentane	Air	kg	1,93E-03	1,93E-03	1,73E-03	1,73E-03	1,66E-03	1,66E-03	1,67E-03	1,67E-03
Phenanthrene	Air	kg	x	x	1,08E-10	1,08E-10	x	x	x	x
Phenol	Air	kg	1,40E-03	1,40E-03	1,38E-03	1,38E-03	1,35E-03	1,35E-03	1,90E-03	1,90E-03
Phenol, 2,4-dichloro-	Air	kg	2,61E-07	2,61E-07	4,90E-08	4,90E-08	1,71E-09	1,71E-09	1,71E-09	1,71E-09
Phenol, pentachloro-	Air	kg	2,43E-07	2,43E-07	1,69E-07	1,69E-07	1,94E-07	1,94E-07	2,41E-07	2,41E-07
Phosphine	Air	kg	1,86E-11	1,86E-11	1,79E-11	1,79E-11	1,19E-11	1,19E-11	2,11E-11	2,11E-11
Phosphorus	Air	kg	1,27E-04	1,28E-04	1,32E-04	1,33E-04	1,24E-04	1,25E-04	1,20E-04	1,21E-04
Platinum	Air	kg	7,01E-12	7,01E-12	2,66E-12	2,66E-12	3,57E-12	3,57E-12	5,27E-12	5,27E-12

Plutonium-238	Air	Bq	1,50E-07	1,50E-07	1,12E-07	1,12E-07	1,32E-07	1,32E-07	1,50E-07	1,50E-07
Plutonium-alpha	Air	Bq	3,43E-07	3,43E-07	2,87E-07	2,87E-07	3,02E-07	3,02E-07	3,45E-07	3,45E-07
Polonium-210	Air	Bq	2,06E+01	2,06E+01	1,63E+01	1,63E+01	1,15E+01	1,15E+01	1,36E+01	1,36E+01
Polychlorinated biphenyls	Air	kg	2,68E-08	2,68E-08	2,46E-08	2,46E-08	2,30E-08	2,30E-08	2,37E-08	2,37E-08
Potassium	Air	kg	8,48E-03	8,57E-03	8,66E-03	8,73E-03	8,18E-03	8,25E-03	8,18E-03	8,27E-03
Potassium-40	Air	Bq	2,01E+00	2,01E+00	1,68E+00	1,68E+00	1,44E+00	1,44E+00	1,70E+00	1,70E+00
Propanal	Air	kg	9,87E-07	9,87E-07	2,33E-07	2,33E-07	1,56E-08	1,56E-08	1,32E-08	1,32E-08
Propane	Air	kg	1,48E-03	1,48E-03	1,31E-03	1,31E-03	1,27E-03	1,27E-03	1,33E-03	1,33E-03
Propene	Air	kg	6,90E-04	6,90E-04	6,34E-04	6,34E-04	5,50E-04	5,50E-04	2,73E-03	2,73E-03
Propionic acid	Air	kg	3,61E-06	3,61E-06	2,07E-06	2,07E-06	2,78E-06	2,78E-06	3,41E-06	3,41E-06
Propylamine	Air	kg	4,25E-08	4,25E-08	2,78E-08	2,78E-08	5,68E-11	5,68E-11	5,48E-11	5,48E-11
Propylene oxide	Air	kg	1,92E-04	1,92E-04	1,09E-04	1,09E-04	1,21E-06	1,21E-06	2,55E-03	2,55E-03
Protactinium-234	Air	Bq	2,15E-01	2,15E-01	1,69E-01	1,69E-01	1,35E-01	1,35E-01	1,51E-01	1,51E-01
Radioactive species, other beta emitters	Air	Bq	1,90E+01	1,90E+01	1,25E+01	1,25E+01	1,03E+01	1,03E+01	1,07E+01	1,07E+01
Radium-226	Air	Bq	1,91E+01	1,91E+01	1,40E+01	1,40E+01	5,89E+00	5,89E+00	6,77E+00	6,77E+00
Radium-228	Air	Bq	1,96E+00	1,96E+00	1,89E+00	1,89E+00	1,70E+00	1,70E+00	2,58E+00	2,58E+00
Radon-220	Air	Bq	3,60E+01	3,60E+01	2,05E+01	2,05E+01	2,41E+01	2,41E+01	2,61E+01	2,61E+01
Radon-222	Air	Bq	4,89E+05	2,06E+07	3,68E+05	1,55E+07	4,04E+05	1,73E+07	4,60E+05	1,97E+07
Rhodium	Air	kg	x	x	2,90E-18	2,90E-18	x	x	x	x
Ruthenium-103	Air	Bq	6,75E-07	6,75E-07	6,05E-07	6,05E-07	5,60E-07	5,60E-07	6,06E-07	6,06E-07
Scandium	Air	kg	4,48E-08	1,93E-06	4,44E-08	1,46E-06	4,09E-08	1,63E-06	5,69E-08	1,86E-06
Selenium	Air	kg	5,83E-06	6,09E-06	5,00E-06	5,20E-06	4,75E-06	4,97E-06	4,98E-06	5,23E-06
Silicon	Air	kg	2,17E-03	2,29E-03	3,60E-03	3,69E-03	3,44E-03	3,54E-03	2,02E-03	2,13E-03
Silicon tetrafluoride	Air	kg	3,46E-08	3,46E-08	6,22E-08	6,22E-08	4,67E-09	4,67E-09	4,71E-09	4,71E-09
Silver	Air	kg	7,13E-09	8,60E-08	5,30E-09	6,46E-08	2,99E-09	6,93E-08	3,78E-09	7,91E-08
Silver-110	Air	Bq	6,69E-06	6,69E-06	6,00E-06	6,00E-06	5,55E-06	5,55E-06	6,00E-06	6,00E-06

Sodium	Air	kg	7,41E-04	7,72E-04	7,50E-04	7,73E-04	5,22E-04	5,48E-04	5,96E-04	6,25E-04
Sodium chlorate	Air	kg	5,43E-07	5,43E-07	5,44E-07	5,44E-07	2,07E-07	2,07E-07	2,08E-07	2,08E-07
Sodium dichromate	Air	kg	3,55E-07	3,55E-07	3,25E-07	3,25E-07	2,82E-07	2,82E-07	2,94E-07	2,94E-07
Sodium formate	Air	kg	1,20E-06	1,20E-06	1,21E-06	1,21E-06	1,33E-07	1,33E-07	1,33E-07	1,33E-07
Sodium hydroxide	Air	kg	2,16E-07	2,16E-07	2,08E-07	2,08E-07	1,38E-07	1,38E-07	2,45E-07	2,45E-07
Strontium	Air	kg	1,05E-05	1,25E-05	9,57E-06	1,10E-05	9,53E-06	1,11E-05	1,25E-05	1,44E-05
Styrene	Air	kg	1,45E-05	1,45E-05	1,28E-05	1,28E-05	2,65E-06	2,65E-06	2,88E-06	2,88E-06
Sulfate	Air	kg	2,33E-02	2,38E-02	1,78E-02	1,82E-02	1,34E-03	1,75E-03	1,06E-02	1,11E-02
Sulfur dioxide	Air	kg	4,54E-01	4,54E-01	4,09E-01	4,09E-01	3,29E-01	3,29E-01	3,91E-01	3,91E-01
Sulfur hexafluoride	Air	kg	7,07E-06	7,07E-06	6,94E-06	6,94E-06	5,30E-06	5,30E-06	6,19E-06	6,19E-06
Sulfur trioxide	Air	kg	1,55E-05	1,55E-05	5,44E-07	5,44E-07	1,17E-07	1,17E-07	1,17E-07	1,17E-07
Sulfuric acid	Air	kg	4,53E-08	4,53E-08	4,35E-08	4,35E-08	2,88E-08	2,88E-08	5,12E-08	5,12E-08
t-Butyl methyl ether	Air	kg	6,49E-06	6,49E-06	6,50E-06	6,50E-06	6,46E-06	6,46E-06	6,46E-06	6,46E-06
t-Butylamine	Air	kg	2,74E-07	2,74E-07	2,14E-08	2,14E-08	8,85E-10	8,85E-10	8,73E-10	8,73E-10
Tellurium	Air	kg	x	x	6,26E-13	6,26E-13	x	x	x	x
Terpenes	Air	kg	1,43E-05	1,43E-05	1,42E-05	1,42E-05	1,38E-05	1,38E-05	1,38E-05	1,38E-05
Thallium	Air	kg	9,55E-08	9,55E-08	1,95E-07	1,95E-07	8,35E-08	8,35E-08	1,03E-07	1,03E-07
Thorium	Air	kg	5,51E-08	5,51E-08	5,60E-08	5,60E-08	5,01E-08	5,01E-08	7,38E-08	7,38E-08
Thorium-228	Air	Bq	4,47E-01	4,47E-01	3,86E-01	3,86E-01	3,60E-01	3,60E-01	4,55E-01	4,55E-01
Thorium-230	Air	Bq	1,12E+01	1,12E+01	8,00E+00	8,00E+00	5,06E-01	5,06E-01	5,70E-01	5,70E-01
Thorium-232	Air	Bq	6,52E-01	6,52E-01	5,32E-01	5,32E-01	4,67E-01	4,67E-01	5,51E-01	5,51E-01
Thorium-234	Air	Bq	2,15E-01	2,15E-01	1,69E-01	1,69E-01	1,35E-01	1,35E-01	1,51E-01	1,51E-01
Tin	Air	kg	7,40E-05	7,41E-05	7,37E-05	7,38E-05	7,41E-05	7,42E-05	7,39E-05	7,40E-05
Tin oxide	Air	kg	x	x	8,15E-16	8,15E-16	x	x	x	x
Titanium	Air	kg	1,27E-04	1,62E-04	5,32E-04	5,58E-04	3,53E-04	3,82E-04	1,23E-04	1,56E-04
Toluene	Air	kg	4,69E-04	4,69E-04	4,40E-04	4,40E-04	3,76E-04	3,76E-04	3,93E-04	3,93E-04

Toluene, 2-chloro-	Air	kg	1,03E-06	1,03E-06	8,71E-08	8,71E-08	4,42E-09	4,42E-09	4,41E-09	4,41E-09
Trimethylamine	Air	kg	1,95E-08	1,95E-08	1,63E-08	1,63E-08	5,17E-11	5,17E-11	5,16E-11	5,16E-11
Tungsten	Air	kg	4,66E-10	2,14E-07	3,50E-10	1,60E-07	3,92E-10	1,79E-07	4,45E-10	2,04E-07
Uranium	Air	kg	6,17E-08	6,17E-08	6,33E-08	6,33E-08	5,50E-08	5,50E-08	8,70E-08	8,70E-08
Uranium-234	Air	Bq	1,25E+01	1,25E+01	8,98E+00	8,98E+00	1,55E+00	1,55E+00	1,76E+00	1,76E+00
Uranium-235	Air	Bq	8,81E-02	8,81E-02	6,88E-02	6,88E-02	7,40E-02	7,40E-02	8,41E-02	8,41E-02
Uranium-238	Air	Bq	1,38E+01	1,38E+01	1,01E+01	1,01E+01	2,74E+00	2,74E+00	3,18E+00	3,18E+00
Uranium alpha	Air	Bq	8,49E+00	8,49E+00	6,38E+00	6,38E+00	7,14E+00	7,14E+00	8,11E+00	8,11E+00
Used air	Air	kg	x	x	7,28E+00	7,28E+00	x	x	x	x
Vanadium	Air	kg	1,93E-04	1,96E-04	1,77E-04	1,79E-04	1,37E-04	1,40E-04	1,45E-04	1,48E-04
VOC, volatile organic compounds	Air	kg	1,02E-03	1,02E-03	8,76E-04	8,76E-04	1,99E-01	1,99E-01	x	x
Water	Air	kg	9,31E-01	9,31E-01	2,31E+00	2,31E+00	9,33E-01	9,33E-01	9,29E-01	9,29E-01
Xenon-131m	Air	Bq	6,72E+01	6,72E+01	5,57E+01	5,57E+01	5,43E+01	5,43E+01	6,10E+01	6,10E+01
Xenon-133	Air	Bq	2,36E+03	2,36E+03	1,99E+03	1,99E+03	1,92E+03	1,92E+03	2,14E+03	2,14E+03
Xenon-133m	Air	Bq	4,53E+00	4,53E+00	3,11E+00	3,11E+00	3,46E+00	3,46E+00	4,22E+00	4,22E+00
Xenon-135	Air	Bq	9,50E+02	9,50E+02	7,99E+02	7,99E+02	7,71E+02	7,71E+02	8,61E+02	8,61E+02
Xenon-135m	Air	Bq	5,88E+02	5,88E+02	4,98E+02	4,98E+02	4,78E+02	4,78E+02	5,32E+02	5,32E+02
Xenon-137	Air	Bq	1,66E+01	1,66E+01	1,47E+01	1,47E+01	1,37E+01	1,37E+01	1,49E+01	1,49E+01
Xenon-138	Air	Bq	1,28E+02	1,28E+02	1,12E+02	1,12E+02	1,05E+02	1,05E+02	1,15E+02	1,15E+02
Xylene	Air	kg	2,56E-04	2,56E-04	1,83E-04	1,83E-04	1,97E-04	1,97E-04	2,10E-04	2,10E-04
Zinc	Air	kg	1,86E-03	1,87E-03	1,85E-03	1,85E-03	3,23E-03	3,24E-03	1,83E-03	1,83E-03
Zinc-65	Air	Bq	1,29E-04	1,29E-04	1,16E-04	1,16E-04	1,07E-04	1,07E-04	1,16E-04	1,16E-04
Zinc oxide	Air	kg	x	x	1,63E-15	1,63E-15	x	x	x	x
Zirconium	Air	kg	1,75E-07	1,75E-07	1,70E-07	1,70E-07	1,75E-07	1,75E-07	1,68E-07	1,68E-07
Zirconium-95	Air	Bq	1,26E-04	1,26E-04	1,13E-04	1,13E-04	1,05E-04	1,05E-04	1,13E-04	1,13E-04
1-Butanol	Water	kg	7,87E-07	7,87E-07	1,92E-07	1,92E-07	9,06E-08	9,06E-08	1,60E-07	1,60E-07

1-Pentanol	Water	kg	5,70E-07	5,70E-07	1,02E-07	1,02E-07	2,36E-10	2,36E-10	2,27E-10	2,27E-10
1-Pentene	Water	kg	4,30E-07	4,30E-07	7,74E-08	7,74E-08	1,78E-10	1,78E-10	1,71E-10	1,71E-10
1-Propanol	Water	kg	2,37E-07	2,37E-07	1,12E-07	1,12E-07	1,16E-09	1,16E-09	1,14E-09	1,14E-09
1,4-Butanediol	Water	kg	2,86E-07	2,86E-07	2,95E-08	2,95E-08	1,37E-09	1,37E-09	1,45E-09	1,45E-09
2-Aminopropanol	Water	kg	5,38E-07	5,38E-07	7,12E-08	7,12E-08	1,75E-10	1,75E-10	1,75E-10	1,75E-10
2-Methyl-1-propanol	Water	kg	1,01E-06	1,01E-06	2,33E-07	2,33E-07	1,46E-09	1,46E-09	1,44E-09	1,44E-09
2-Methyl-2-butene	Water	kg	9,55E-11	9,55E-11	1,72E-11	1,72E-11	3,95E-14	3,95E-14	3,80E-14	3,80E-14
2-Propanol	Water	kg	8,44E-06	8,44E-06	6,16E-06	6,16E-06	2,16E-09	2,16E-09	2,11E-09	2,11E-09
4-Methyl-2-pentanone	Water	kg	3,84E-09	3,84E-09	3,42E-09	3,42E-09	1,61E-09	1,61E-09	8,66E-10	8,66E-10
Acenaphthene	Water	kg	4,86E-09	4,86E-09	4,32E-09	4,32E-09	3,68E-09	3,68E-09	3,47E-09	3,47E-09
Acenaphthylene	Water	kg	3,04E-10	3,04E-10	3,13E-10	3,13E-10	2,30E-10	2,30E-10	2,17E-10	2,17E-10
Acetaldehyde	Water	kg	9,85E-05	9,85E-05	2,09E-03	2,09E-03	3,42E-07	3,42E-07	1,16E-03	1,16E-03
Acetic acid	Water	kg	1,33E-03	1,33E-03	2,97E-02	2,97E-02	2,57E-04	2,57E-04	1,64E-02	1,64E-02
Acetone	Water	kg	2,71E-06	2,71E-06	1,11E-06	1,11E-06	6,17E-08	6,17E-08	5,98E-08	5,98E-08
Acetonitrile	Water	kg	1,08E-07	1,08E-07	-2,79E-08	-2,79E-08	5,86E-10	5,86E-10	5,84E-10	5,84E-10
Acetyl chloride	Water	kg	4,47E-07	4,47E-07	8,05E-08	8,05E-08	1,85E-10	1,85E-10	1,78E-10	1,78E-10
Acidity, unspecified	Water	kg	3,13E-04	3,13E-04	3,13E-04	3,13E-04	2,93E-04	2,93E-04	3,03E-04	3,03E-04
Acids, unspecified	Water	kg	x	x	2,22E-03	2,22E-03	x	x	x	x
Acrylate, ion	Water	kg	5,10E-08	5,10E-08	4,90E-08	4,90E-08	3,24E-08	3,24E-08	5,77E-08	5,77E-08
Acrylonitrile	Water	kg	x	x	2,69E-12	2,69E-12	x	x	x	x
Actinides, radioactive, unspecified	Water	Bq	1,78E+00	1,78E+00	1,34E+00	1,34E+00	1,57E+00	1,57E+00	1,79E+00	1,79E+00
Aluminium	Water	kg	1,60E-03	2,61E-01	1,56E-03	2,52E-01	1,45E-03	3,12E-01	1,52E-03	2,20E-01
Americium-241	Water	Bq	x	x	2,83E-04	2,83E-04	x	x	x	x
Ammonia	Water	kg	x	x	4,22E-05	4,22E-05	x	x	x	x
Ammonium, ion	Water	kg	2,85E-03	2,86E-03	2,71E-03	2,73E-03	1,22E-03	1,23E-03	2,59E-03	2,60E-03
Aniline	Water	kg	3,68E-06	3,68E-06	1,85E-07	1,85E-07	2,59E-08	2,59E-08	2,59E-08	2,59E-08

Anthracene	Water	kg	x	x	3,65E-11	3,65E-11	x	x	x	x
Antimony	Water	kg	7,53E-04	2,21E-03	6,51E-04	1,92E-03	2,51E-05	1,64E-04	3,11E-04	9,47E-04
Antimony-122	Water	Bq	1,93E-03	1,93E-03	1,73E-03	1,73E-03	1,60E-03	1,60E-03	1,73E-03	1,73E-03
Antimony-124	Water	Bq	3,40E-01	3,40E-01	2,65E-01	2,65E-01	3,00E-01	3,00E-01	3,34E-01	3,34E-01
Antimony-125	Water	Bq	3,11E-01	3,11E-01	2,41E-01	2,41E-01	2,81E-01	2,81E-01	3,05E-01	3,05E-01
AOX, Adsorbable Organic Halogen as Cl	Water	kg	1,75E-05	1,75E-05	2,42E-05	2,42E-05	1,71E-05	1,71E-05	1,75E-05	1,75E-05
Arsenic, ion	Water	kg	2,90E-04	6,40E-04	2,36E-04	5,46E-04	9,66E-05	4,85E-04	1,02E-04	4,33E-04
Barite	Water	kg	1,61E-03	1,61E-03	1,10E-03	1,10E-03	1,13E-03	1,13E-03	1,01E-03	1,01E-03
Barium	Water	kg	9,45E-04	3,12E-03	8,21E-04	2,53E-03	6,27E-04	1,95E-03	5,51E-04	2,26E-03
Barium-140	Water	Bq	8,46E-03	8,46E-03	7,59E-03	7,59E-03	7,02E-03	7,02E-03	7,59E-03	7,59E-03
Benzene	Water	kg	1,62E-03	1,62E-03	1,47E-03	1,47E-03	1,32E-03	1,32E-03	2,62E-03	2,62E-03
Benzene, 1,2-dichloro-	Water	kg	6,11E-06	6,11E-06	-5,80E-08	-5,80E-08	5,06E-08	5,06E-08	8,02E-08	8,02E-08
Benzene, chloro-	Water	kg	8,84E-05	9,03E-05	4,65E-08	2,03E-07	9,38E-07	9,39E-07	1,55E-06	1,55E-06
Benzene, ethyl-	Water	kg	1,89E-05	1,89E-05	1,62E-05	1,62E-05	1,42E-05	1,42E-05	1,34E-05	1,34E-05
Benzo(a)anthracene	Water	kg	x	x	2,97E-11	2,97E-11	x	x	x	x
Benzo(b)fluoranthene	Water	kg	x	x	3,30E-11	3,30E-11	x	x	x	x
Benzyl alcohol	Water	kg	x	x	x	x	x	x	x	x
Beryllium	Water	kg	2,02E-07	7,73E-05	1,66E-07	6,23E-05	1,99E-07	7,32E-05	1,81E-07	7,06E-05
BOD5, Biological Oxygen Demand	Water	kg	1,78E+00	2,15E+00	1,25E+00	1,65E+00	1,47E-01	4,32E-01	4,17E-01	7,09E-01
Borate	Water	kg	6,34E-05	6,34E-05	9,28E-06	9,28E-06	2,49E-08	2,49E-08	2,43E-08	2,43E-08
Boron	Water	kg	5,11E-04	6,16E-03	4,91E-04	5,82E-03	6,80E-04	8,09E-03	6,26E-04	6,20E-03
Bromate	Water	kg	1,58E-04	1,58E-04	2,12E-04	2,12E-04	8,13E-05	8,13E-05	4,96E-04	4,96E-04
Bromide	Water	kg	2,70E-03	2,70E-03	5,28E-04	5,28E-04	7,43E-06	7,43E-06	7,40E-06	7,40E-06
Bromine	Water	kg	1,88E-03	2,12E-03	7,60E-03	7,82E-03	8,59E-04	9,39E-04	1,11E-03	1,25E-03
Butene	Water	kg	1,74E-06	1,74E-06	5,09E-07	5,09E-07	3,38E-07	3,38E-07	3,63E-07	3,63E-07
Butyl acetate	Water	kg	2,32E-07	2,32E-07	1,81E-07	1,81E-07	1,16E-07	1,16E-07	2,06E-07	2,06E-07

Butyrolactone	Water	kg	3,10E-10	3,10E-10	2,98E-10	2,98E-10	1,98E-10	1,98E-10	3,51E-10	3,51E-10
Cadmium	Water	kg	x	x	3,90E-08	3,90E-08	x	x	x	x
Cadmium, ion	Water	kg	6,72E-05	2,14E-04	4,97E-05	1,87E-04	6,94E-06	1,97E-04	5,06E-06	1,49E-04
Calcium, ion	Water	kg	2,63E+00	3,78E+00	1,95E+00	3,25E+00	1,60E-01	1,41E+00	1,55E-01	1,77E+00
Carbon-14	Water	Bq	x	x	1,43E-02	1,43E-02	x	x	x	x
Carbon disulfide	Water	kg	3,55E-06	3,55E-06	2,62E-07	2,62E-07	1,16E-08	1,16E-08	1,11E-08	1,11E-08
Carbonate	Water	kg	2,13E-03	2,13E-03	1,73E-03	1,73E-03	1,18E-03	1,18E-03	1,70E-03	1,70E-03
Carboxylic acids, unspecified	Water	kg	3,30E-03	3,30E-03	2,84E-03	2,84E-03	2,50E-03	2,50E-03	2,35E-03	2,35E-03
Cerium-141	Water	Bq	3,38E-03	3,38E-03	3,03E-03	3,03E-03	2,80E-03	2,80E-03	3,04E-03	3,04E-03
Cerium-144	Water	Bq	1,03E-03	1,03E-03	9,24E-04	9,24E-04	8,54E-04	8,54E-04	9,24E-04	9,24E-04
Cesium	Water	kg	7,82E-07	7,82E-07	6,73E-07	6,73E-07	5,91E-07	5,91E-07	5,57E-07	5,57E-07
Cesium-134	Water	Bq	2,38E-01	2,38E-01	1,90E-01	1,90E-01	2,22E-01	2,22E-01	2,40E-01	2,40E-01
Cesium-136	Water	Bq	6,01E-04	6,01E-04	5,38E-04	5,38E-04	4,98E-04	4,98E-04	5,39E-04	5,39E-04
Cesium-137	Water	Bq	2,06E+02	2,06E+02	1,55E+02	1,55E+02	1,81E+02	1,81E+02	2,07E+02	2,07E+02
Chloramine	Water	kg	1,15E-05	1,15E-05	1,75E-06	1,75E-06	4,44E-09	4,44E-09	4,33E-09	4,33E-09
Chlorate	Water	kg	1,32E-03	1,32E-03	1,73E-03	1,73E-03	7,16E-04	7,16E-04	3,89E-03	3,89E-03
Chloride	Water	kg	2,25E+00	3,35E+00	2,00E+00	2,31E+00	1,33E+00	1,41E+00	4,47E+00	4,56E+00
Chlorinated solvents, unspecified	Water	kg	2,90E-06	2,90E-06	3,74E-06	3,74E-06	2,07E-06	2,07E-06	3,31E-06	3,31E-06
Chlorine	Water	kg	1,01E-05	1,01E-05	1,46E-05	1,46E-05	4,12E-06	4,12E-06	1,07E-05	1,07E-05
Chloroacetic acid	Water	kg	3,64E-04	3,64E-04	2,00E-04	2,00E-04	1,18E-05	1,18E-05	1,18E-05	1,18E-05
Chloroacetyl chloride	Water	kg	7,18E-07	7,18E-07	9,50E-08	9,50E-08	2,33E-10	2,33E-10	2,33E-10	2,33E-10
Chloroform	Water	kg	4,42E-07	4,42E-07	4,03E-08	4,03E-08	2,03E-09	2,03E-09	3,44E-09	3,44E-09
Chlorosulfonic acid	Water	kg	3,93E-07	3,93E-07	-1,01E-07	-1,01E-07	2,13E-09	2,13E-09	2,12E-09	2,12E-09
Chromium	Water	kg	x	x	1,24E-08	1,24E-08	x	x	x	x
Chromium-51	Water	Bq	7,32E-01	7,32E-01	6,34E-01	6,34E-01	6,23E-01	6,23E-01	6,70E-01	6,70E-01
Chromium VI	Water	kg	2,32E-04	1,18E-03	2,09E-04	1,03E-03	1,76E-04	9,30E-04	1,64E-04	8,81E-04

Chromium, ion	Water	kg	8,74E-05	8,74E-05	5,85E-05	5,85E-05	1,23E-05	1,23E-05	1,35E-05	1,35E-05
Chrysene	Water	kg	x	x	1,68E-10	1,68E-10	x	x	x	x
Cobalt	Water	kg	1,23E-04	1,82E-03	1,52E-04	1,52E-03	2,42E-05	1,44E-03	2,55E-05	1,46E-03
Cobalt-57	Water	Bq	1,91E-02	1,91E-02	1,71E-02	1,71E-02	1,58E-02	1,58E-02	1,71E-02	1,71E-02
Cobalt-58	Water	Bq	4,04E+00	4,04E+00	3,38E+00	3,38E+00	3,50E+00	3,50E+00	3,80E+00	3,80E+00
Cobalt-60	Water	Bq	3,37E+00	3,37E+00	2,90E+00	2,90E+00	2,90E+00	2,90E+00	3,14E+00	3,14E+00
COD, Chemical Oxygen Demand	Water	kg	2,18E+00	3,29E+00	1,41E+00	2,59E+00	1,47E-01	1,02E+00	4,31E-01	1,32E+00
Copper	Water	kg	x	x	1,79E-07	1,79E-07	x	x	x	x
Copper, ion	Water	kg	1,11E-04	2,85E-03	1,27E-04	2,70E-03	2,53E-05	2,87E-03	5,12E-05	2,59E-03
Cresol	Water	kg	x	x	8,61E-13	8,61E-13	x	x	x	x
Cumene	Water	kg	2,09E-03	2,09E-03	2,02E-03	2,02E-03	1,86E-03	1,86E-03	3,73E-03	3,73E-03
Curium alpha	Water	Bq	x	x	3,75E-04	3,75E-04	x	x	x	x
Cyanide	Water	kg	6,56E-05	6,56E-05	6,15E-05	6,15E-05	7,33E-05	7,33E-05	5,08E-05	5,08E-05
Decane	Water	kg	x	x	3,00E-07	3,00E-07	x	x	x	x
Dichromate	Water	kg	1,12E-06	1,12E-06	1,09E-06	1,09E-06	1,05E-06	1,05E-06	9,04E-07	9,04E-07
Diethylamine	Water	kg	1,87E-06	1,87E-06	1,27E-07	1,27E-07	1,16E-08	1,16E-08	1,15E-08	1,15E-08
Dimethylamine	Water	kg	4,87E-06	4,87E-06	1,04E-07	1,04E-07	1,02E-08	1,02E-08	1,02E-08	1,02E-08
Dioxin, 2,3,7,8 Tetrachlorodibenzo-p-	Water	kg	x	x	1,01E-22	1,01E-22	x	x	x	x
Dipropylamine	Water	kg	8,88E-07	8,88E-07	4,08E-08	4,08E-08	7,29E-09	7,29E-09	7,28E-09	7,28E-09
DOC, Dissolved Organic Carbon	Water	kg	6,75E-02	5,09E-01	7,18E-02	5,40E-01	5,15E-02	3,96E-01	1,29E-01	4,82E-01
Ethane, 1,2-dichloro-	Water	kg	2,84E-05	2,84E-05	1,73E-05	1,73E-05	1,28E-07	1,28E-07	1,42E-07	1,42E-07
Ethanol	Water	kg	4,39E-05	4,39E-05	1,05E-04	1,05E-04	4,29E-07	4,29E-07	5,57E-06	5,57E-06
Ethene	Water	kg	7,81E-05	7,81E-05	3,46E-04	3,46E-04	8,16E-04	8,16E-04	8,02E-05	8,02E-05
Ethene, chloro-	Water	kg	2,10E-08	2,10E-08	2,89E-08	2,89E-08	1,50E-08	1,50E-08	1,74E-08	1,74E-08
Ethyl acetate	Water	kg	8,21E-07	8,21E-07	1,51E-06	1,51E-06	1,22E-08	1,22E-08	8,16E-07	8,16E-07
Ethylamine	Water	kg	3,76E-06	3,76E-06	2,45E-06	2,45E-06	2,85E-09	2,85E-09	2,77E-09	2,77E-09

Ethylene diamine	Water	kg	1,40E-06	1,40E-06	1,04E-07	1,04E-07	4,76E-09	4,76E-09	4,51E-09	4,51E-09
Ethylene oxide	Water	kg	6,53E-06	6,53E-06	4,04E-06	4,04E-06	2,36E-07	2,36E-07	2,48E-07	2,48E-07
Fluoranthene	Water	kg	x	x	3,50E-11	3,50E-11	x	x	x	x
Fluoride	Water	kg	3,40E-02	8,74E-02	2,64E-02	7,93E-02	3,41E-03	6,93E-02	3,52E-03	5,50E-02
Fluorine	Water	kg	x	x	8,86E-10	8,86E-10	x	x	x	x
Fluosilicic acid	Water	kg	3,38E-05	3,38E-05	3,36E-05	3,36E-05	5,27E-05	5,27E-05	3,37E-05	3,37E-05
Formaldehyde	Water	kg	1,95E-04	1,95E-04	2,30E-04	2,30E-04	1,91E-04	1,91E-04	2,08E-04	2,08E-04
Formamide	Water	kg	1,04E-06	1,04E-06	1,87E-07	1,87E-07	4,31E-10	4,31E-10	4,15E-10	4,15E-10
Formate	Water	kg	8,44E-05	8,44E-05	6,58E-06	6,58E-06	2,73E-07	2,73E-07	2,69E-07	2,69E-07
Formic acid	Water	kg	3,02E-07	3,02E-07	5,44E-08	5,44E-08	1,25E-10	1,25E-10	1,20E-10	1,20E-10
Glutaraldehyde	Water	kg	1,99E-07	1,99E-07	1,35E-07	1,35E-07	1,40E-07	1,40E-07	1,25E-07	1,25E-07
Heat, waste	Water	MJ	2,79E+02	2,79E+02	2,79E+02	2,80E+02	2,07E+02	2,07E+02	2,22E+02	2,22E+02
Hexane	Water	kg	x	x	9,46E-14	9,46E-14	x	x	x	x
Hydrocarbons, aliphatic, alkanes, unspecified	Water	kg	1,02E-04	1,02E-04	8,75E-05	8,75E-05	7,69E-05	7,69E-05	7,24E-05	7,24E-05
Hydrocarbons, aliphatic, unsaturated	Water	kg	9,91E-06	9,91E-06	8,02E-06	8,02E-06	7,10E-06	7,10E-06	6,69E-06	6,69E-06
Hydrocarbons, aromatic	Water	kg	4,16E-04	4,16E-04	3,58E-04	3,58E-04	3,14E-04	3,14E-04	2,96E-04	2,96E-04
Hydrocarbons, unspecified	Water	kg	5,94E-04	5,94E-04	6,05E-04	6,05E-04	4,49E-04	4,49E-04	5,98E-04	5,98E-04
Hydrogen-3, Tritium	Water	Bq	4,71E+05	4,71E+05	3,53E+05	3,53E+05	4,13E+05	4,13E+05	4,71E+05	4,71E+05
Hydrogen chloride	Water	kg	x	x	5,57E-10	5,57E-10	x	x	x	x
Hydrogen fluoride	Water	kg	x	x	1,91E-11	1,91E-11	x	x	x	x
Hydrogen peroxide	Water	kg	1,36E-05	1,36E-05	8,13E-06	8,13E-06	4,05E-07	4,05E-07	1,32E-05	1,32E-05
Hydrogen sulfide	Water	kg	8,92E-06	2,69E-04	8,64E-06	2,85E-04	8,91E-06	2,16E-04	8,60E-06	2,38E-04
Hydroxide	Water	kg	2,96E-06	2,96E-06	1,79E-06	1,79E-06	1,04E-06	1,04E-06	1,83E-06	1,83E-06
Hypochlorite	Water	kg	1,98E-05	1,98E-05	1,34E-05	1,34E-05	1,68E-05	1,68E-05	1,88E-05	1,88E-05
Iodide	Water	kg	4,81E-04	4,81E-04	3,57E-04	3,57E-04	6,17E-05	6,17E-05	5,88E-05	5,88E-05
Iodine-129	Water	Bq	x	x	4,09E-02	4,09E-02	x	x	x	x

Iodine-131	Water	Bq	6,56E-02	6,56E-02	5,15E-02	5,15E-02	5,74E-02	5,74E-02	6,33E-02	6,33E-02
Iodine-133	Water	Bq	5,31E-03	5,31E-03	4,76E-03	4,76E-03	4,40E-03	4,40E-03	4,77E-03	4,77E-03
Iron	Water	kg	x	x	3,44E-05	3,44E-05	x	x	x	x
Iron-59	Water	Bq	1,46E-03	1,46E-03	1,31E-03	1,31E-03	1,21E-03	1,21E-03	1,31E-03	1,31E-03
Iron, ion	Water	kg	2,19E-02	1,55E-01	1,61E-02	1,27E-01	1,87E-02	1,55E-01	2,19E-02	1,49E-01
Isopropylamine	Water	kg	3,66E-06	3,66E-06	2,67E-06	2,67E-06	9,36E-10	9,36E-10	9,13E-10	9,13E-10
Lactic acid	Water	kg	6,96E-07	6,96E-07	3,20E-08	3,20E-08	5,71E-09	5,71E-09	5,70E-09	5,70E-09
Lanthanum-140	Water	Bq	9,02E-03	9,02E-03	8,08E-03	8,08E-03	7,47E-03	7,47E-03	8,09E-03	8,09E-03
Lead	Water	kg	1,14E-04	1,37E-03	9,67E-05	1,13E-03	8,86E-05	1,66E-03	6,40E-05	1,59E-03
Lead-210	Water	Bq	6,41E+03	6,41E+03	4,64E+03	4,64E+03	6,23E+00	6,23E+00	6,07E+00	6,07E+00
Lithium, ion	Water	kg	1,00E-03	1,00E-03	8,80E-04	8,80E-04	4,13E-04	4,13E-04	2,22E-04	2,22E-04
m-Xylene	Water	kg	3,17E-07	3,17E-07	2,03E-07	2,03E-07	1,21E-08	1,21E-08	6,68E-09	6,68E-09
Magnesium	Water	kg	1,69E-02	4,97E-01	9,33E-03	3,85E-01	7,61E-03	4,64E-01	7,47E-03	4,54E-01
Manganese	Water	kg	4,69E-04	4,52E-02	3,70E-04	3,76E-02	3,23E-04	4,57E-02	3,34E-04	4,31E-02
Manganese-54	Water	Bq	2,45E-01	2,45E-01	2,14E-01	2,14E-01	2,13E-01	2,13E-01	2,31E-01	2,31E-01
Mercury	Water	kg	9,99E-06	2,15E-05	7,30E-06	1,62E-05	7,63E-07	1,04E-05	9,37E-07	1,17E-05
Methane, dibromo-	Water	kg	x	x	1,63E-14	1,63E-14	x	x	x	x
Methane, dichloro-, HCC-30	Water	kg	1,12E-05	1,12E-05	8,55E-06	8,55E-06	7,77E-06	7,77E-06	7,56E-06	7,56E-06
Methane, monochloro-, R-40	Water	kg	x	x	1,75E-09	1,75E-09	x	x	x	x
Methanol	Water	kg	5,65E-05	5,65E-05	2,53E-04	2,53E-04	4,68E-05	4,68E-05	5,16E-05	5,16E-05
Methyl acetate	Water	kg	1,99E-07	1,99E-07	1,48E-08	1,48E-08	6,98E-11	6,98E-11	6,97E-11	6,97E-11
Methyl acrylate	Water	kg	4,78E-07	4,78E-07	4,59E-07	4,59E-07	3,04E-07	3,04E-07	5,40E-07	5,40E-07
Methyl amine	Water	kg	3,08E-08	3,08E-08	-8,08E-08	-8,08E-08	4,59E-09	4,59E-09	4,64E-09	4,64E-09
Methyl formate	Water	kg	4,59E-08	4,59E-08	8,28E-09	8,28E-09	4,30E-11	4,30E-11	6,11E-11	6,11E-11
Molybdenum	Water	kg	6,68E-05	3,92E-04	5,60E-05	3,35E-04	6,12E-05	4,12E-04	6,37E-05	3,75E-04
Molybdenum-99	Water	Bq	3,11E-03	3,11E-03	2,79E-03	2,79E-03	2,58E-03	2,58E-03	2,79E-03	2,79E-03
Naphthalene	Water	kg	x	x	4,20E-09	4,20E-09	x	x	x	x

Nickel	Water	kg	x	x	1,20E-07	1,20E-07	x	x	x	x
Nickel, ion	Water	kg	3,15E-04	4,25E-03	2,71E-04	3,27E-03	1,39E-04	3,40E-03	1,48E-04	3,76E-03
Niobium-95	Water	Bq	2,56E-02	2,56E-02	1,94E-02	1,94E-02	2,47E-02	2,47E-02	2,47E-02	2,47E-02
Nitrate	Water	kg	4,98E-01	5,37E-01	4,00E-01	4,31E-01	2,19E-02	5,28E-02	2,38E-02	5,93E-02
Nitrite	Water	kg	2,60E-05	2,68E-05	2,55E-05	2,63E-05	2,20E-05	2,24E-05	2,88E-05	2,94E-05
Nitrobenzene	Water	kg	1,09E-05	1,09E-05	3,47E-07	3,47E-07	5,82E-08	5,82E-08	5,81E-08	5,81E-08
Nitrogen	Water	kg	2,65E-03	2,65E-03	2,58E-03	2,58E-03	2,00E-03	2,00E-03	2,45E-03	2,45E-03
Nitrogen, organic bound	Water	kg	5,09E-04	5,31E-04	4,94E-04	5,17E-04	7,90E-04	8,04E-04	4,81E-04	4,97E-04
o-Xylene	Water	kg	2,02E-08	2,02E-08	1,80E-08	1,80E-08	8,48E-09	8,48E-09	4,56E-09	4,56E-09
Oils, unspecified	Water	kg	4,57E-02	4,57E-02	3,99E-02	3,99E-02	3,54E-02	3,54E-02	3,33E-02	3,33E-02
PAH, polycyclic aromatic hydrocarbons	Water	kg	4,87E-06	4,87E-06	4,24E-06	4,24E-06	3,75E-06	3,75E-06	3,57E-06	3,57E-06
Particulates, < 10 um	Water	kg	x	x	3,36E-11	3,36E-11	x	x	x	x
Particulates, > 10 um	Water	kg	x	x	3,25E-04	3,25E-04	x	x	x	x
Phenol	Water	kg	1,63E-04	1,63E-04	1,36E-04	1,36E-04	9,52E-05	9,52E-05	5,92E-04	5,92E-04
Phosphate	Water	kg	1,35E-01	2,54E-01	9,94E-02	1,91E-01	2,38E-02	1,29E-01	2,11E-02	1,32E-01
Phosphorus	Water	kg	3,61E-03	3,61E-03	4,21E-03	4,21E-03	2,52E-04	2,52E-04	2,80E-04	2,80E-04
Plutonium-alpha	Water	Bq	x	x	1,13E-03	1,13E-03	x	x	x	x
Polonium-210	Water	Bq	9,78E+03	9,78E+03	7,08E+03	7,08E+03	9,48E+00	9,48E+00	9,37E+00	9,37E+00
Potassium	Water	kg	x	x	3,52E-08	3,52E-08	x	x	x	x
Potassium-40	Water	Bq	7,75E+02	7,75E+02	5,60E+02	5,60E+02	4,39E-01	4,39E-01	2,93E-01	2,93E-01
Potassium, ion	Water	kg	1,63E-02	2,99E-01	1,13E-02	2,32E-01	7,84E-03	2,70E-01	8,52E-03	2,65E-01
Propanal	Water	kg	5,32E-07	5,32E-07	1,58E-07	1,58E-07	3,41E-10	3,41E-10	3,29E-10	3,29E-10
Propane, 1,2-dichloro-	Water	kg	x	x	3,68E-17	3,68E-17	x	x	x	x
Propene	Water	kg	1,16E-03	1,16E-03	1,19E-03	1,19E-03	1,32E-03	1,32E-03	6,13E-03	6,13E-03
Propionic acid	Water	kg	2,13E-06	2,13E-06	2,55E-07	2,55E-07	4,49E-09	4,49E-09	4,49E-09	4,49E-09
Propylamine	Water	kg	1,02E-07	1,02E-07	6,68E-08	6,68E-08	1,36E-10	1,36E-10	1,31E-10	1,31E-10

Propylene oxide	Water	kg	4,63E-04	4,63E-04	2,62E-04	2,62E-04	2,92E-06	2,92E-06	6,14E-03	6,14E-03
Protactinium-234	Water	Bq	2,88E+00	2,88E+00	2,16E+00	2,16E+00	2,42E+00	2,42E+00	2,75E+00	2,75E+00
Radioactive species, alpha emitters	Water	Bq	3,70E+00	3,70E+00	2,65E+00	2,65E+00	8,65E-03	8,65E-03	8,71E-03	8,71E-03
Radioactive species, Nuclides, unspecified	Water	Bq	1,07E+03	1,07E+03	8,06E+02	8,06E+02	9,41E+02	9,41E+02	1,07E+03	1,07E+03
Radium-224	Water	Bq	3,91E+01	3,91E+01	3,37E+01	3,37E+01	2,96E+01	2,96E+01	2,79E+01	2,79E+01
Radium-226	Water	Bq	9,07E+03	9,07E+03	6,63E+03	6,63E+03	1,56E+03	1,56E+03	1,76E+03	1,76E+03
Radium-228	Water	Bq	7,99E+01	7,99E+01	6,88E+01	6,88E+01	5,98E+01	5,98E+01	5,61E+01	5,61E+01
Rubidium	Water	kg	7,82E-06	7,82E-06	6,73E-06	6,73E-06	5,91E-06	5,91E-06	5,57E-06	5,57E-06
Ruthenium-103	Water	Bq	6,56E-04	6,56E-04	5,88E-04	5,88E-04	5,44E-04	5,44E-04	5,88E-04	5,88E-04
Ruthenium-106	Water	Bq	x	x	2,83E-04	2,83E-04	x	x	x	x
Scandium	Water	kg	3,19E-06	1,25E-04	2,49E-06	1,01E-04	2,60E-06	1,27E-04	3,00E-06	1,20E-04
Selenium	Water	kg	1,95E-05	2,35E-04	1,68E-05	1,98E-04	7,73E-06	2,20E-04	1,12E-05	2,05E-04
Silicon	Water	kg	3,94E-03	1,14E+00	3,51E-03	1,08E+00	2,71E-03	8,03E-01	3,05E-03	8,69E-01
Silver-110	Water	Bq	3,25E+00	3,25E+00	2,76E+00	2,76E+00	2,77E+00	2,77E+00	3,03E+00	3,03E+00
Silver, ion	Water	kg	2,70E-06	1,10E-05	2,36E-06	1,01E-05	1,39E-06	1,21E-05	9,95E-07	9,14E-06
Sodium-24	Water	Bq	2,35E-02	2,35E-02	2,11E-02	2,11E-02	1,95E-02	1,95E-02	2,11E-02	2,11E-02
Sodium formate	Water	kg	2,89E-06	2,89E-06	2,91E-06	2,91E-06	3,19E-07	3,19E-07	3,19E-07	3,19E-07
Sodium, ion	Water	kg	1,09E+00	2,06E+00	7,44E-01	1,22E+00	5,59E-01	9,34E-01	1,61E+00	2,41E+00
Soil loss by erosion into water	Water	kg	3,75E+01	3,75E+01	2,34E+01	2,34E+01	8,47E+00	8,47E+00	8,47E+00	8,47E+00
Solids, inorganic	Water	kg	8,40E-02	8,40E-02	7,61E-02	7,61E-02	7,39E-02	7,39E-02	8,39E-02	8,39E-02
Solved solids	Water	kg	5,97E-02	5,97E-02	5,38E-02	5,38E-02	3,03E-02	3,03E-02	2,37E-02	2,37E-02
Strontium	Water	kg	1,60E-03	1,58E-02	1,36E-03	1,20E-02	1,21E-03	1,31E-02	1,15E-03	1,41E-02
Strontium-89	Water	Bq	6,39E-02	6,39E-02	5,44E-02	5,44E-02	5,57E-02	5,57E-02	5,87E-02	5,87E-02
Strontium-90	Water	Bq	8,69E+02	8,69E+02	4,72E+02	4,72E+02	6,29E+02	6,29E+02	8,33E+02	8,33E+02
Sulfate	Water	kg	5,48E+00	9,11E+00	4,07E+00	6,67E+00	4,31E-01	3,50E+00	4,28E-01	3,55E+00
Sulfide	Water	kg	-5,34E-05	-5,34E-05	-5,04E-05	-5,04E-05	7,36E-06	7,36E-06	7,56E-06	7,56E-06

Sulfite	Water	kg	4,94E-05	4,94E-05	3,18E-05	3,18E-05	4,11E-05	4,11E-05	4,56E-05	4,56E-05
Sulfur	Water	kg	7,97E-03	7,97E-03	2,01E-03	2,01E-03	2,18E-04	2,18E-04	2,12E-04	2,12E-04
Suspended solids, unspecified	Water	kg	4,38E-02	4,38E-02	4,08E-02	4,08E-02	3,40E-02	3,40E-02	3,60E-02	3,60E-02
Suspended substances, unspecified	Water	kg	1,08E-08	1,08E-08	9,31E-09	9,31E-09	x	x	x	x
t-Butyl methyl ether	Water	kg	1,67E-06	1,67E-06	1,46E-06	1,46E-06	1,21E-06	1,21E-06	1,17E-06	1,17E-06
t-Butylamine	Water	kg	6,57E-07	6,57E-07	5,12E-08	5,12E-08	2,12E-09	2,12E-09	2,10E-09	2,10E-09
Technetium-99m	Water	Bq	7,15E-02	7,15E-02	6,41E-02	6,41E-02	5,93E-02	5,93E-02	6,42E-02	6,42E-02
Tellurium-123m	Water	Bq	3,23E-02	3,23E-02	2,43E-02	2,43E-02	2,95E-02	2,95E-02	3,24E-02	3,24E-02
Tellurium-132	Water	Bq	1,80E-04	1,80E-04	1,61E-04	1,61E-04	1,49E-04	1,49E-04	1,61E-04	1,61E-04
Thallium	Water	kg	1,31E-07	1,84E-05	9,55E-08	1,68E-05	1,17E-07	1,87E-05	1,21E-07	1,57E-05
Thorium-228	Water	Bq	2,35E+02	2,35E+02	1,91E+02	1,91E+02	1,18E+02	1,18E+02	1,12E+02	1,12E+02
Thorium-230	Water	Bq	3,93E+02	3,93E+02	2,95E+02	2,95E+02	3,30E+02	3,30E+02	3,75E+02	3,75E+02
Thorium-232	Water	Bq	4,95E-02	4,95E-02	-1,35E-01	-1,35E-01	-6,21E-02	-6,21E-02	-8,95E-02	-8,95E-02
Thorium-234	Water	Bq	2,88E+00	2,88E+00	2,16E+00	2,16E+00	2,42E+00	2,42E+00	2,75E+00	2,75E+00
Tin	Water	kg	x	x	1,50E-12	1,50E-12	x	x	x	x
Tin, ion	Water	kg	7,07E-05	3,31E-04	7,07E-05	3,05E-04	7,07E-05	4,01E-04	7,52E-05	3,32E-04
Titanium	Water	kg	x	x	2,21E-09	2,21E-09	x	x	x	x
Titanium, ion	Water	kg	4,62E-05	6,24E-02	5,16E-05	1,86E-01	3,02E-05	1,20E-01	2,32E-05	4,62E-02
TOC, Total Organic Carbon	Water	kg	6,96E-02	5,11E-01	7,38E-02	5,42E-01	5,31E-02	3,97E-01	1,31E-01	4,84E-01
Toluene	Water	kg	1,11E-04	1,11E-04	9,10E-05	9,10E-05	7,43E-05	7,43E-05	6,98E-05	6,98E-05
Toluene, 2-chloro-	Water	kg	1,94E-06	1,94E-06	1,58E-07	1,58E-07	9,11E-09	9,11E-09	9,10E-09	9,10E-09
Tributyltin compounds	Water	kg	1,26E-06	1,26E-06	1,55E-06	1,55E-06	8,22E-07	8,22E-07	7,04E-07	7,04E-07
Triethylene glycol	Water	kg	-7,15E-06	-7,15E-06	-8,12E-06	-8,12E-06	-7,18E-06	-7,18E-06	-7,57E-06	-7,57E-06
Trimethylamine	Water	kg	3,84E-06	3,84E-06	3,30E-06	3,30E-06	1,24E-10	1,24E-10	1,24E-10	1,24E-10
Tungsten	Water	kg	6,06E-06	1,81E-04	5,07E-06	1,72E-04	6,26E-06	2,44E-04	5,79E-06	1,79E-04
Uranium-234	Water	Bq	3,46E+00	3,46E+00	2,60E+00	2,60E+00	2,90E+00	2,90E+00	3,30E+00	3,30E+00

Uranium-235	Water	Bq	5,70E+00	5,70E+00	4,28E+00	4,28E+00	4,79E+00	4,79E+00	5,44E+00	5,44E+00
Uranium-238	Water	Bq	3,30E+03	3,30E+03	2,39E+03	2,39E+03	1,05E+01	1,05E+01	1,14E+01	1,14E+01
Uranium alpha	Water	Bq	1,66E+02	1,66E+02	1,25E+02	1,25E+02	1,39E+02	1,39E+02	1,58E+02	1,58E+02
Urea	Water	kg	3,11E-07	3,11E-07	2,07E-07	2,07E-07	4,57E-10	4,57E-10	4,43E-10	4,43E-10
Vanadium	Water	kg	x	x	4,76E-09	4,76E-09	x	x	x	x
Vanadium, ion	Water	kg	2,11E-05	4,30E-03	1,77E-05	3,79E-03	7,79E-06	1,09E-03	1,20E-05	1,99E-03
VOC, volatile organic compounds, unspecified origin	Water	kg	2,81E-04	2,81E-04	2,41E-04	2,41E-04	2,13E-04	2,13E-04	2,02E-04	2,02E-04
Water	Water	kg	x	x	2,22E+00	2,22E+00	x	x	x	x
Xylene	Water	kg	8,00E-05	8,00E-05	6,90E-05	6,90E-05	6,03E-05	6,03E-05	5,67E-05	5,67E-05
Zinc	Water	kg	x	x	5,10E-08	5,10E-08	x	x	x	x
Zinc-65	Water	Bq	3,19E-01	3,19E-01	2,86E-01	2,86E-01	2,64E-01	2,64E-01	2,86E-01	2,86E-01
Zinc, ion	Water	kg	5,78E-04	1,13E-02	4,49E-04	1,00E-02	2,91E-04	1,29E-02	2,60E-04	1,06E-02
Zirconium-95	Water	Bq	3,69E-03	3,69E-03	3,31E-03	3,31E-03	3,06E-03	3,06E-03	3,31E-03	3,31E-03
Calcium fluoride waste	Afval	kg	x	x	5,02E-08	5,02E-08	x	x	x	x
Construction waste	Afval	kg	x	x	3,67E-04	3,67E-04	x	x	x	x
Mineral waste, from mining	Afval	kg	x	x	2,94E-01	2,94E-01	x	x	x	x
Radioactive tailings	Afval	kg	x	x	8,79E-05	8,79E-05	x	x	x	x
Rejects	Afval	kg	x	x	2,40E-04	2,40E-04	x	x	x	x
Slag (uranium conversion)	Afval	kg	x	x	3,32E-07	3,32E-07	x	x	x	x
Slags	Afval	kg	x	x	1,56E-05	1,56E-05	x	x	x	x
Waste returned to mine	Afval	kg	x	x	2,61E-05	2,61E-05	x	x	x	x
Waste, nuclear, unspecified/kg	Afval	kg	x	x	8,87E-07	8,87E-07	x	x	x	x
2,4-D	Soil	kg	6,14E-05	6,14E-05	5,55E-05	5,55E-05	5,54E-06	5,54E-06	5,54E-06	5,54E-06
Acetamide	Soil	kg	2,35E-05	2,35E-05	2,02E-05	2,02E-05	x	x	x	x
Acetochlor	Soil	kg	1,38E-03	1,38E-03	1,19E-03	1,19E-03	x	x	x	x
Aclonifen	Soil	kg	-3,78E-05	-3,78E-05	-3,34E-05	-3,34E-05	1,07E-06	1,07E-06	1,07E-06	1,07E-06

Alachlor	Soil	kg	9,61E-05	9,61E-05	8,25E-05	8,25E-05	x	x	x	x
Aldrin	Soil	kg	5,55E-10	5,55E-10	3,11E-05	3,11E-05	3,53E-10	3,53E-10	6,27E-10	6,27E-10
Aluminium	Soil	kg	1,67E-03	1,67E-03	1,64E-03	1,64E-03	1,59E-03	1,59E-03	1,59E-03	1,59E-03
Ammonia	Soil	kg	x	x	4,29E-06	4,29E-06	x	x	x	x
Antimony	Soil	kg	3,57E-10	3,57E-10	3,53E-10	3,53E-10	3,41E-10	3,41E-10	1,25E-06	1,25E-06
Arsenic	Soil	kg	5,67E-07	5,67E-07	2,77E-06	2,77E-06	5,33E-07	5,33E-07	1,08E-06	1,08E-06
Atrazine	Soil	kg	2,26E-03	2,26E-03	1,95E-03	1,95E-03	9,25E-11	9,25E-11	1,64E-10	1,64E-10
Barium	Soil	kg	1,92E-04	1,92E-04	1,68E-04	1,68E-04	1,53E-04	1,53E-04	1,73E-04	1,73E-04
Benomyl	Soil	kg	3,67E-08	3,67E-08	3,65E-08	3,65E-08	3,53E-08	3,53E-08	3,53E-08	3,53E-08
Bentazone	Soil	kg	9,86E-03	9,86E-03	-1,71E-05	-1,71E-05	5,45E-07	5,45E-07	5,44E-07	5,44E-07
Bifenthrin	Soil	kg	5,03E-06	5,03E-06	4,32E-06	4,32E-06	x	x	x	x
Boron	Soil	kg	1,11E-05	1,11E-05	1,05E-05	1,05E-05	1,00E-05	1,00E-05	1,11E-05	1,11E-05
Bromide	Soil	kg	x	x	1,26E-09	1,26E-09	x	x	x	x
Bromoxynil	Soil	kg	1,51E-05	1,51E-05	1,30E-05	1,30E-05	x	x	x	x
Cadmium	Soil	kg	1,65E-07	1,65E-07	8,37E-07	8,37E-07	9,35E-07	9,35E-07	1,15E-06	1,15E-06
Calcium	Soil	kg	1,89E-02	1,89E-02	1,89E-02	1,89E-02	1,85E-02	1,85E-02	1,85E-02	1,85E-02
Carbetamide	Soil	kg	2,15E-04	2,15E-04	-2,97E-06	-2,97E-06	1,94E-07	1,94E-07	1,94E-07	1,94E-07
Carbofuran	Soil	kg	8,41E-04	8,41E-04	2,00E-05	2,00E-05	1,94E-05	1,94E-05	1,94E-05	1,94E-05
Carbon	Soil	kg	1,44E-02	1,44E-02	1,37E-02	1,37E-02	1,35E-02	1,35E-02	1,37E-02	1,37E-02
Chloride	Soil	kg	9,08E-02	9,08E-02	9,05E-02	9,05E-02	8,96E-02	8,96E-02	8,98E-02	8,98E-02
Chlorimuron-ethyl	Soil	kg	-1,42E-06	-1,42E-06	-1,22E-06	-1,22E-06	x	x	x	x
Chlorothalonil	Soil	kg	3,88E-04	3,88E-04	-5,80E-05	-5,80E-05	1,52E-06	1,52E-06	1,43E-06	1,43E-06
Chlorotoluron	Soil	kg	-2,96E-04	-2,96E-04	-2,55E-04	-2,55E-04	x	x	x	x
Chlorpyrifos	Soil	kg	1,07E-04	1,07E-04	9,21E-05	9,21E-05	x	x	x	x
Chromium	Soil	kg	1,30E-05	1,30E-05	1,00E-04	1,00E-04	1,40E-05	1,40E-05	1,61E-05	1,61E-05
Chromium VI	Soil	kg	4,13E-05	4,13E-05	4,01E-05	4,01E-05	3,94E-05	3,94E-05	3,36E-05	3,36E-05

Chromium, ion	Soil	kg	x	x	4,37E-14	4,37E-14	x	x	x	x
Clethodim	Soil	kg	-2,02E-06	-2,02E-06	-1,74E-06	-1,74E-06	x	x	x	x
Cloransulam-methyl	Soil	kg	-6,08E-07	-6,08E-07	-5,22E-07	-5,22E-07	x	x	x	x
Cobalt	Soil	kg	1,11E-06	1,11E-06	1,12E-06	1,12E-06	1,10E-06	1,10E-06	1,11E-06	1,11E-06
Copper	Soil	kg	6,36E-05	6,36E-05	1,60E-05	1,60E-05	3,22E-05	3,22E-05	3,23E-05	3,23E-05
Cyfluthrin	Soil	kg	1,17E-06	1,17E-06	1,01E-06	1,01E-06	x	x	x	x
Cypermethrin	Soil	kg	1,00E-04	1,00E-04	3,57E-06	3,57E-06	2,74E-06	2,74E-06	2,74E-06	2,74E-06
Cyproconazole	Soil	kg	-1,06E-06	-1,06E-06	-9,14E-07	-9,14E-07	x	x	x	x
Cyprodinil	Soil	kg	-4,22E-06	-4,22E-06	-3,63E-06	-3,63E-06	x	x	x	x
Decane	Soil	kg	x	x	1,57E-08	1,57E-08	x	x	x	x
Dicamba	Soil	kg	4,02E-05	4,02E-05	3,46E-05	3,46E-05	x	x	x	x
Diflufenzopyr-sodium	Soil	kg	4,47E-06	4,47E-06	3,84E-06	3,84E-06	x	x	x	x
Dimethenamid	Soil	kg	1,17E-04	1,17E-04	1,00E-04	1,00E-04	x	x	x	x
Ethephon	Soil	kg	-6,55E-05	-6,55E-05	-5,63E-05	-5,63E-05	x	x	x	x
Fenoxaprop	Soil	kg	-1,21E-06	-1,21E-06	-1,04E-06	-1,04E-06	x	x	x	x
Fenpiclonil	Soil	kg	1,68E-05	1,68E-05	-1,01E-06	-1,01E-06	9,67E-08	9,67E-08	9,30E-08	9,30E-08
Fenpropimorph	Soil	kg	-7,58E-05	-7,58E-05	-6,51E-05	-6,51E-05	x	x	x	x
Fipronil	Soil	kg	6,70E-06	6,70E-06	5,76E-06	5,76E-06	x	x	x	x
Fluazifop-P-butyl	Soil	kg	-4,05E-07	-4,05E-07	-3,48E-07	-3,48E-07	x	x	x	x
Flumetsulam	Soil	kg	7,82E-06	7,82E-06	6,72E-06	6,72E-06	x	x	x	x
Flumioxazin	Soil	kg	-7,08E-07	-7,08E-07	-6,08E-07	-6,08E-07	x	x	x	x
Fluoride	Soil	kg	4,71E-05	4,71E-05	4,40E-05	4,40E-05	4,20E-05	4,20E-05	3,76E-05	3,76E-05
Fomesafen	Soil	kg	-4,65E-06	-4,65E-06	-3,99E-06	-3,99E-06	x	x	x	x
Foramsulfuron	Soil	kg	8,38E-07	8,38E-07	7,20E-07	7,20E-07	x	x	x	x
Glufosinate	Soil	kg	2,76E-05	2,76E-05	2,38E-05	2,38E-05	x	x	x	x
Glyphosate	Soil	kg	-4,27E-04	-4,27E-04	-3,59E-04	-3,59E-04	3,99E-05	3,99E-05	4,01E-05	4,01E-05

Heat, waste	Soil	MJ	4,55E+00	4,55E+00	4,32E+00	4,32E+00	2,64E+00	2,64E+00	2,84E+00	2,84E+00
Imazamox	Soil	kg	-6,08E-07	-6,08E-07	-5,22E-07	-5,22E-07	x	x	x	x
Imazapyr	Soil	kg	1,12E-07	1,12E-07	9,60E-08	9,60E-08	x	x	x	x
Imazethapyr	Soil	kg	-1,13E-06	-1,13E-06	-9,68E-07	-9,68E-07	x	x	x	x
Iron	Soil	kg	6,33E-03	6,33E-03	6,18E-03	6,18E-03	4,99E-03	4,99E-03	5,47E-03	5,47E-03
Isoproturon	Soil	kg	-3,77E-04	-3,77E-04	-3,24E-04	-3,24E-04	x	x	x	x
Isoxaflutole	Soil	kg	1,34E-05	1,34E-05	1,15E-05	1,15E-05	x	x	x	x
Lambda-cyhalothrin	Soil	kg	3,56E-07	3,56E-07	3,06E-07	3,06E-07	x	x	x	x
Lead	Soil	kg	1,24E-05	1,24E-05	-4,91E-06	-4,91E-06	4,72E-06	4,72E-06	8,55E-06	8,55E-06
Linuron	Soil	kg	5,31E-04	5,31E-04	1,50E-05	1,50E-05	8,23E-06	8,23E-06	8,21E-06	8,21E-06
Magnesium	Soil	kg	2,27E-03	2,27E-03	2,25E-03	2,25E-03	2,20E-03	2,20E-03	2,19E-03	2,19E-03
Mancozeb	Soil	kg	5,96E-04	5,96E-04	4,67E-06	4,67E-06	1,98E-06	1,98E-06	1,86E-06	1,86E-06
Manganese	Soil	kg	1,23E-03	1,23E-03	1,25E-03	1,25E-03	1,22E-03	1,22E-03	1,22E-03	1,22E-03
Mercury	Soil	kg	2,40E-07	2,40E-07	-1,64E-07	-1,64E-07	1,52E-08	1,52E-08	1,61E-08	1,61E-08
Mesotrione	Soil	kg	3,63E-05	3,63E-05	3,12E-05	3,12E-05	x	x	x	x
Metaldehyde	Soil	kg	7,81E-05	7,81E-05	-1,57E-05	-1,57E-05	3,70E-08	3,70E-08	3,69E-08	3,69E-08
Metolachlor	Soil	kg	1,21E-03	1,21E-03	9,88E-04	9,88E-04	5,95E-05	5,95E-05	5,94E-05	5,94E-05
Metribuzin	Soil	kg	1,61E-05	1,61E-05	-4,01E-06	-4,01E-06	6,96E-08	6,96E-08	6,53E-08	6,53E-08
Molybdenum	Soil	kg	2,31E-07	2,31E-07	2,35E-07	2,35E-07	2,30E-07	2,30E-07	2,34E-07	2,34E-07
Napropamide	Soil	kg	1,71E-04	1,71E-04	3,78E-07	3,78E-07	6,54E-08	6,54E-08	6,52E-08	6,52E-08
Nickel	Soil	kg	9,21E-06	9,21E-06	6,27E-06	6,27E-06	3,59E-06	3,59E-06	5,30E-06	5,30E-06
Nicosulfuron	Soil	kg	6,14E-06	6,14E-06	5,28E-06	5,28E-06	x	x	x	x
Oils, biogenic	Soil	kg	6,83E-03	6,83E-03	6,82E-03	6,82E-03	6,80E-03	6,80E-03	6,81E-03	6,81E-03
Oils, unspecified	Soil	kg	5,10E-02	5,10E-02	5,27E-02	5,27E-02	3,63E-02	3,63E-02	3,39E-02	3,39E-02
Orbencarb	Soil	kg	1,13E-04	1,13E-04	8,87E-07	8,87E-07	3,76E-07	3,76E-07	3,53E-07	3,53E-07
Paraquat	Soil	kg	1,42E-05	1,42E-05	1,22E-05	1,22E-05	x	x	x	x

Parathion	Soil	kg	x	x	9,75E-04	9,75E-04	x	x	x	x
Pendimethalin	Soil	kg	-2,08E-04	-2,08E-04	-1,79E-04	-1,79E-04	x	x	x	x
Permethrin	Soil	kg	2,51E-06	2,51E-06	2,16E-06	2,16E-06	x	x	x	x
Phosphate	Soil	kg	x	x	2,46E-06	2,46E-06	x	x	x	x
Phosphorus	Soil	kg	6,15E-04	6,15E-04	6,20E-04	6,20E-04	6,09E-04	6,09E-04	6,09E-04	6,09E-04
Pirimicarb	Soil	kg	-1,82E-06	-1,82E-06	-1,61E-06	-1,61E-06	5,15E-08	5,15E-08	5,14E-08	5,14E-08
Potassium	Soil	kg	3,45E-03	3,45E-03	3,47E-03	3,47E-03	3,41E-03	3,41E-03	3,41E-03	3,41E-03
Primisulfuron	Soil	kg	2,79E-06	2,79E-06	2,40E-06	2,40E-06	x	x	x	x
Prochloraz	Soil	kg	1,93E-03	1,93E-03	x	x	x	x	x	x
Prosulfuron	Soil	kg	5,03E-07	5,03E-07	4,32E-07	4,32E-07	x	x	x	x
Rimsulfuron	Soil	kg	2,79E-06	2,79E-06	2,40E-06	2,40E-06	x	x	x	x
Silicon	Soil	kg	5,10E-03	5,10E-03	5,17E-03	5,17E-03	5,07E-03	5,07E-03	5,09E-03	5,09E-03
Simazine	Soil	kg	5,64E-05	5,64E-05	4,85E-05	4,85E-05	x	x	x	x
Sodium	Soil	kg	4,99E-02	4,99E-02	4,98E-02	4,98E-02	4,97E-02	4,97E-02	4,97E-02	4,97E-02
Strontium	Soil	kg	3,86E-06	3,86E-06	6,09E-06	6,09E-06	3,08E-06	3,08E-06	3,00E-06	3,00E-06
Sulfate	Soil	kg	x	x	1,35E-07	1,35E-07	x	x	x	x
Sulfentrazone	Soil	kg	-7,29E-06	-7,29E-06	-6,27E-06	-6,27E-06	x	x	x	x
Sulfide	Soil	kg	x	x	8,12E-07	8,12E-07	x	x	x	x
Sulfosate	Soil	kg	-3,00E-05	-3,00E-05	-2,58E-05	-2,58E-05	x	x	x	x
Sulfur	Soil	kg	8,11E-04	8,11E-04	7,91E-04	7,91E-04	7,61E-04	7,61E-04	7,67E-04	7,67E-04
Sulfuric acid	Soil	kg	2,80E-11	2,80E-11	2,68E-11	2,68E-11	1,78E-11	1,78E-11	3,16E-11	3,16E-11
Tebupirimphos	Soil	kg	2,35E-05	2,35E-05	2,02E-05	2,02E-05	x	x	x	x
Tebutam	Soil	kg	4,05E-04	4,05E-04	8,95E-07	8,95E-07	1,55E-07	1,55E-07	1,55E-07	1,55E-07
Teflubenzuron	Soil	kg	1,40E-06	1,40E-06	1,10E-08	1,10E-08	4,64E-09	4,64E-09	4,36E-09	4,36E-09
Tefluthrin	Soil	kg	1,84E-05	1,84E-05	1,58E-05	1,58E-05	x	x	x	x
Terbufos	Soil	kg	6,26E-05	6,26E-05	5,38E-05	5,38E-05	x	x	x	x

Thiram	Soil	kg	4,13E-04	4,13E-04	6,47E-08	6,47E-08	6,26E-08	6,26E-08	6,26E-08	6,26E-08
Tin	Soil	kg	2,84E-08	2,84E-08	-2,52E-08	-2,52E-08	2,62E-08	2,62E-08	2,50E-06	2,50E-06
Titanium	Soil	kg	8,39E-05	8,39E-05	8,50E-05	8,50E-05	8,36E-05	8,36E-05	8,36E-05	8,36E-05
Trifluralin	Soil	kg	-4,24E-05	-4,24E-05	-3,65E-05	-3,65E-05	x	x	x	x
Vanadium	Soil	kg	2,40E-06	2,40E-06	2,43E-06	2,43E-06	2,39E-06	2,39E-06	2,39E-06	2,39E-06
Zinc	Soil	kg	5,78E-04	5,78E-04	5,68E-05	5,68E-05	1,41E-04	1,41E-04	1,45E-04	1,45E-04

Table F 3 Life Cycle Inventory (LCI) Data – IPK.

			IPK					
			BioBuild Demonstrator		***BioBuild Optimized***		***Dorma***	
Substance	**Compartment**	**Unit**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**
Air	Raw	kg	x	x	4,10E+01	4,10E+01	x	x
Aluminium	Raw	kg	1,80E-01	1,80E-01	1,76E-01	1,76E-01	4,24E-01	4,24E-01
Anhydrite	Raw	kg	8,01E-06	8,01E-06	6,12E-06	6,12E-06	9,67E-06	9,67E-06
Baryte	Raw	kg	2,87E-02	2,87E-02	2,29E-02	2,29E-02	1,44E-02	1,44E-02
Basalt	Raw	kg	2,14E+00	2,14E+00	2,14E+00	2,14E+00	3,39E+00	3,39E+00
Biomass, feedstock	Raw	MJ	x	x	5,93E-11	5,93E-11	x	x
Borax	Raw	kg	7,26E-05	7,26E-05	7,24E-05	7,24E-05	1,23E-04	1,23E-04
Bromine	Raw	kg	6,46E-04	6,46E-04	4,22E-04	4,22E-04	2,81E-07	2,81E-07
Cadmium	Raw	kg	8,86E-06	8,86E-06	6,98E-06	6,98E-06	3,31E-06	3,31E-06
Calcite	Raw	kg	2,65E+00	2,65E+00	2,54E+00	2,54E+00	2,52E+00	2,52E+00
Calcium chloride	Raw	kg	x	x	8,96E-14	8,96E-14	x	x
Carbon dioxide, in air	Raw	kg	1,75E+02	1,75E+02	1,64E+02	1,64E+02	1,84E+01	1,84E+01
Carbon, in organic matter, in soil	Raw	kg	1,19E-03	1,19E-03	1,10E-03	1,10E-03	1,28E-05	1,28E-05
Chromium	Raw	kg	1,21E-02	1,21E-02	9,93E-03	9,93E-03	5,07E-03	5,07E-03
Chrysotile	Raw	kg	8,34E-06	8,34E-06	1,29E-05	1,29E-05	1,55E-05	1,55E-05

Cinnabar	Raw	kg	7,59E-07	7,59E-07	1,18E-06	1,18E-06	1,43E-06	1,43E-06
Clay	Raw	kg	1,00E+00	1,00E+00	9,81E-01	9,81E-01	1,40E+00	1,40E+00
Clay, bentonite	Raw	kg	1,09E-02	1,09E-02	7,34E-03	7,34E-03	4,94E-03	4,94E-03
Coal, brown	Raw	kg	1,30E+01	1,30E+01	4,19E+00	4,19E+00	4,46E+00	4,46E+00
Coal, hard	Raw	kg	1,00E+01	1,00E+01	4,14E+00	4,14E+00	4,65E+00	4,65E+00
Cobalt	Raw	kg	4,55E-08	4,55E-08	3,22E-05	3,22E-05	3,57E-06	3,57E-06
Colemanite	Raw	kg	2,11E-04	2,11E-04	9,89E-05	9,89E-05	5,85E-01	5,85E-01
Copper	Raw	kg	x	x	1,45E-07	1,45E-07	x	x
Copper, 0.99% in sulfide, Cu 0.36% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	3,03E-03	3,03E-03	1,28E-03	1,28E-03	1,38E-03	1,38E-03
Copper, 1.18% in sulfide, Cu 0.39% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,67E-02	1,67E-02	7,05E-03	7,05E-03	7,64E-03	7,64E-03
Copper, 1.42% in sulfide, Cu 0.81% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	4,44E-03	4,44E-03	1,87E-03	1,87E-03	2,03E-03	2,03E-03
Copper, 2.19% in sulfide, Cu 1.83% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	2,24E-02	2,24E-02	9,60E-03	9,60E-03	1,01E-02	1,01E-02
Diatomite	Raw	kg	3,88E-09	3,88E-09	2,53E-09	2,53E-09	1,01E-09	1,01E-09
Dolomite	Raw	kg	2,50E-01	2,50E-01	2,50E-01	2,50E-01	3,95E-01	3,95E-01
Energy, from coal	Raw	MJ	x	x	4,18E-01	4,18E-01	x	x
Energy, from coal, brown	Raw	MJ	x	x	1,67E-01	1,67E-01	x	x
Energy, from gas, natural	Raw	MJ	x	x	1,74E+00	1,74E+00	x	x
Energy, from oil	Raw	MJ	x	x	4,70E-01	4,70E-01	x	x
Energy, from peat	Raw	MJ	x	x	4,17E-04	4,17E-04	x	x
Energy, from uranium	Raw	MJ	x	x	2,20E-01	2,20E-01	x	x
Energy, from wood	Raw	MJ	x	x	7,88E-06	7,88E-06	x	x
Energy, geothermal, converted	Raw	MJ	x	x	3,69E-04	3,69E-04	x	x
Energy, gross calorific value, in biomass	Raw	MJ	1,08E+03	1,08E+03	9,78E+02	9,78E+02	2,04E+02	2,04E+02
Energy, gross calorific value, in biomass, primary forest	Raw	MJ	8,23E-02	8,23E-02	7,61E-02	7,61E-02	8,91E-04	8,91E-04
Energy, kinetic (in wind), converted	Raw	MJ	5,54E+00	5,54E+00	1,45E+00	1,45E+00	1,23E+00	1,23E+00
Energy, potential (in hydropower reservoir),	Raw	MJ	5,53E+01	5,53E+01	2,45E+01	2,45E+01	2,88E+01	2,88E+01

converted								
Energy, solar, converted	Raw	MJ	7,78E-02	7,78E-02	2,80E-02	2,80E-02	2,39E-02	2,39E-02
Feldspar	Raw	kg	2,80E-07	2,80E-07	2,50E-07	2,50E-07	7,63E-09	7,63E-09
Fluorine, 4.5% in apatite, 1% in crude ore, in ground	Raw	kg	4,52E-02	4,52E-02	4,45E-02	4,45E-02	4,41E-05	4,41E-05
Fluorine, 4.5% in apatite, 3% in crude ore, in ground	Raw	kg	1,00E-01	1,00E-01	9,63E-02	9,63E-02	2,06E-05	2,06E-05
Fluorspar	Raw	kg	3,15E-03	3,15E-03	5,82E-03	5,82E-03	7,80E-03	7,80E-03
Gallium	Raw	kg	2,19E-10	2,19E-10	7,12E-11	7,12E-11	6,67E-11	6,67E-11
Gas, mine, off-gas, process, coal mining/m3	Raw	m3	1,00E-01	1,00E-01	4,26E-02	4,26E-02	4,79E-02	4,79E-02
Gas, natural/m3	Raw	m3	1,04E+01	1,04E+01	7,90E+00	7,90E+00	6,31E+00	6,31E+00
Gold	Raw	kg	8,67E-08	8,67E-08	8,61E-08	8,61E-08	3,62E-08	3,62E-08
Gold, Au 1.1E-4%, Ag 4.2E-3%, in ore, in ground	Raw	kg	3,95E-08	3,95E-08	3,92E-08	3,92E-08	1,65E-08	1,65E-08
Gold, Au 1.3E-4%, Ag 4.6E-5%, in ore, in ground	Raw	kg	7,24E-08	7,24E-08	7,19E-08	7,19E-08	3,03E-08	3,03E-08
Gold, Au 2.1E-4%, Ag 2.1E-4%, in ore, in ground	Raw	kg	1,32E-07	1,32E-07	1,32E-07	1,32E-07	5,53E-08	5,53E-08
Gold, Au 4.3E-4%, in ore, in ground	Raw	kg	3,28E-08	3,28E-08	3,26E-08	3,26E-08	1,37E-08	1,37E-08
Gold, Au 4.9E-5%, in ore, in ground	Raw	kg	7,86E-08	7,86E-08	7,81E-08	7,81E-08	3,28E-08	3,28E-08
Gold, Au 6.7E-4%, in ore, in ground	Raw	kg	1,22E-07	1,22E-07	1,21E-07	1,21E-07	5,08E-08	5,08E-08
Gold, Au 7.1E-4%, in ore, in ground	Raw	kg	1,37E-07	1,37E-07	1,36E-07	1,36E-07	5,73E-08	5,73E-08
Gold, Au 9.7E-4%, Ag 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	8,23E-09	8,23E-09	8,17E-09	8,17E-09	3,44E-09	3,44E-09
Granite	Raw	kg	3,30E-09	3,30E-09	4,43E-11	4,43E-11	4,71E-11	4,71E-11
Gravel	Raw	kg	1,36E+01	1,36E+01	1,21E+01	1,21E+01	7,46E+00	7,46E+00
Gypsum	Raw	kg	8,86E-05	8,86E-05	9,27E-05	9,27E-05	5,00E-04	5,00E-04
Indium	Raw	kg	1,58E-07	1,58E-07	1,20E-07	1,20E-07	5,74E-08	5,74E-08
Iodine	Raw	kg	1,29E-04	1,29E-04	8,04E-05	8,04E-05	6,18E-08	6,18E-08
Iron	Raw	kg	5,37E-01	5,37E-01	4,06E-01	4,06E-01	2,66E-01	2,66E-01
Kaolinite	Raw	kg	2,31E-04	2,31E-04	2,13E-04	2,13E-04	7,62E-03	7,62E-03
Kieserite	Raw	kg	3,68E-06	3,68E-06	2,39E-06	2,39E-06	2,46E-06	2,46E-06

Lead	Raw	kg	2,05E-03	2,05E-03	7,20E-04	7,20E-04	3,27E-04	3,27E-04
Lithium	Raw	kg	2,00E-06	2,00E-06	9,62E-07	9,62E-07	1,28E-09	1,28E-09
Magnesite	Raw	kg	6,22E-03	6,22E-03	5,50E-03	5,50E-03	3,17E-03	3,17E-03
Magnesium	Raw	kg	4,46E-06	4,46E-06	4,06E-06	4,06E-06	6,28E-07	6,28E-07
Magnesium chloride	Raw	kg	x	x	1,84E-02	1,84E-02	x	x
Manganese	Raw	kg	2,25E-03	2,25E-03	1,92E-03	1,92E-03	1,08E-03	1,08E-03
Metamorphous rock, graphite containing	Raw	kg	1,38E-02	1,38E-02	2,93E-01	2,93E-01	8,97E-03	8,97E-03
Molybdenum	Raw	kg	5,04E-05	5,04E-05	5,07E-05	5,07E-05	3,34E-05	3,34E-05
Molybdenum, 0.010% in sulfide, Mo 8.2E-3% and Cu 1.83% in crude ore, in ground	Raw	kg	4,15E-04	4,15E-04	1,78E-04	1,78E-04	1,87E-04	1,87E-04
Molybdenum, 0.014% in sulfide, Mo 8.2E-3% and Cu 0.81% in crude ore, in ground	Raw	kg	5,84E-05	5,84E-05	2,46E-05	2,46E-05	2,66E-05	2,66E-05
Molybdenum, 0.022% in sulfide, Mo 8.2E-3% and Cu 0.36% in crude ore, in ground	Raw	kg	2,51E-05	2,51E-05	2,52E-05	2,52E-05	1,66E-05	1,66E-05
Molybdenum, 0.025% in sulfide, Mo 8.2E-3% and Cu 0.39% in crude ore, in ground	Raw	kg	2,14E-04	2,14E-04	9,00E-05	9,00E-05	9,76E-05	9,76E-05
Natural aggregate	Raw	kg	x	x	3,54E-04	3,54E-04	x	x
Nickel	Raw	kg	x	x	3,66E-08	3,66E-08	x	x
Nickel, 1.13% in sulfide, Ni 0.76% and Cu 0.76% in crude ore, in ground	Raw	kg	1,18E-03	1,18E-03	1,15E-03	1,15E-03	2,36E-04	2,36E-04
Nickel, 1.98% in silicates, 1.04% in crude ore, in ground	Raw	kg	3,07E-02	3,07E-02	2,54E-02	2,54E-02	1,35E-02	1,35E-02
Nitrogen, in air	Raw	kg	x	x	-5,40E-11	-5,40E-11	x	x
Occupation, arable	Raw	m2a	9,26E+00	9,26E+00	7,94E+00	7,94E+00	x	x
Occupation, arable, non-irrigated	Raw	m2a	1,75E+01	1,75E+01	1,36E+01	1,36E+01	5,74E-03	5,74E-03
Occupation, construction site	Raw	m2a	1,98E-01	1,98E-01	1,94E-01	1,94E-01	2,52E-03	2,52E-03
Occupation, dump site	Raw	m2a	7,38E-02	7,38E-02	3,63E-02	3,63E-02	4,05E-02	4,05E-02
Occupation, dump site, benthos	Raw	m2a	3,47E-03	3,47E-03	2,46E-03	2,46E-03	1,41E-03	1,41E-03
Occupation, forest, intensive	Raw	m2a	4,72E+00	4,72E+00	1,78E-01	1,78E-01	1,99E-01	1,99E-01
Occupation, forest, intensive, normal	Raw	m2a	4,48E+01	4,48E+01	4,38E+01	4,38E+01	6,44E+00	6,44E+00
Occupation, forest, intensive, short-cycle	Raw	m2a	2,06E-02	2,06E-02	1,91E-02	1,91E-02	2,23E-04	2,23E-04

Occupation, industrial area	Raw	m2a	7,70E-02	7,70E-02	5,60E-02	5,60E-02	2,81E-02	2,81E-02
Occupation, industrial area, benthos	Raw	m2a	3,74E-05	3,74E-05	2,65E-05	2,65E-05	1,74E-05	1,74E-05
Occupation, industrial area, built up	Raw	m2a	9,58E-02	9,58E-02	9,25E-02	9,25E-02	8,67E-02	8,67E-02
Occupation, industrial area, vegetation	Raw	m2a	9,27E-02	9,27E-02	9,13E-02	9,13E-02	2,75E-02	2,75E-02
Occupation, mineral extraction site	Raw	m2a	8,33E-02	8,33E-02	5,96E-02	5,96E-02	4,77E-02	4,77E-02
Occupation, permanent crop, fruit, intensive	Raw	m2a	2,01E-02	2,01E-02	1,82E-02	1,82E-02	2,78E-04	2,78E-04
Occupation, shrub land, sclerophyllous	Raw	m2a	2,78E-03	2,78E-03	1,97E-03	1,97E-03	2,34E-03	2,34E-03
Occupation, traffic area, rail embankment	Raw	m2a	7,43E-03	7,43E-03	7,30E-03	7,30E-03	6,19E-03	6,19E-03
Occupation, traffic area, rail network	Raw	m2a	8,21E-03	8,21E-03	8,07E-03	8,07E-03	6,85E-03	6,85E-03
Occupation, traffic area, road embankment	Raw	m2a	5,26E-01	5,26E-01	4,41E-01	4,41E-01	6,89E-02	6,89E-02
Occupation, traffic area, road network	Raw	m2a	8,40E-02	8,40E-02	7,79E-02	7,79E-02	2,01E-02	2,01E-02
Occupation, urban, discontinuously built	Raw	m2a	1,18E-02	1,18E-02	6,77E-03	6,77E-03	8,01E-06	8,01E-06
Occupation, water bodies, artificial	Raw	m2a	9,79E-02	9,79E-02	3,99E-02	3,99E-02	2,86E-02	2,86E-02
Occupation, water courses, artificial	Raw	m2a	4,15E-02	4,15E-02	1,94E-02	1,94E-02	2,35E-02	2,35E-02
Oil, crude	Raw	kg	4,90E+00	4,90E+00	3,81E+00	3,81E+00	2,90E+00	2,90E+00
Olivine	Raw	kg	3,18E-06	3,18E-06	2,36E-06	2,36E-06	3,75E-06	3,75E-06
Oxygen, in air	Raw	kg	x	x	-1,41E-04	-1,41E-04	x	x
Palladium	Raw	kg	x	x	1,83E-13	1,83E-13	x	x
Pd, Pd 2.0E-4%, Pt 4.8E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	1,33E-08	1,33E-08	1,21E-08	1,21E-08	5,17E-09	5,17E-09
Pd, Pd 7.3E-4%, Pt 2.5E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	3,19E-08	3,19E-08	2,91E-08	2,91E-08	1,24E-08	1,24E-08
Peat	Raw	kg	1,65E-01	1,65E-01	4,28E-02	4,28E-02	1,28E-03	1,28E-03
Phosphorus	Raw	kg	3,99E-01	3,99E-01	3,84E-01	3,84E-01	9,17E-05	9,17E-05
Phosphorus, 18% in apatite, 4% in crude ore, in ground	Raw	kg	1,81E-01	1,81E-01	1,78E-01	1,78E-01	1,77E-04	1,77E-04
Platinum	Raw	kg	x	x	2,20E-12	2,20E-12	x	x
Potassium chloride	Raw	kg	2,28E-01	2,28E-01	1,88E-01	1,88E-01	8,04E-05	8,04E-05
Pt, Pt 2.5E-4%, Pd 7.3E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	8,52E-10	8,52E-10	3,74E-10	3,74E-10	1,79E-10	1,79E-10

Pt, Pt 4.8E-4%, Pd 2.0E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	3,05E-09	3,05E-09	1,34E-09	1,34E-09	6,43E-10	6,43E-10
Pumice	Raw	kg	x	x	4,69E-09	4,69E-09	x	x
Rh, Rh 2.0E-5%, Pt 2.5E-4%, Pd 7.3E-4%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	2,07E-10	2,07E-10	1,22E-10	1,22E-10	6,35E-11	6,35E-11
Rh, Rh 2.4E-5%, Pt 4.8E-4%, Pd 2.0E-4%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	6,48E-10	6,48E-10	3,82E-10	3,82E-10	1,99E-10	1,99E-10
Rhenium	Raw	kg	2,58E-10	2,58E-10	2,24E-10	2,24E-10	6,68E-11	6,68E-11
Sand	Raw	kg	4,61E-04	4,61E-04	5,87E-04	5,87E-04	6,09E-04	6,09E-04
Shale	Raw	kg	2,27E-05	2,27E-05	1,73E-05	1,73E-05	2,74E-05	2,74E-05
Silver	Raw	kg	x	x	1,06E-11	1,06E-11	x	x
Silver, 0.007% in sulfide, Ag 0.004%, Pb, Zn, Cd, In, in ground	Raw	kg	8,95E-07	8,95E-07	8,73E-07	8,73E-07	3,71E-07	3,71E-07
Silver, 3.2ppm in sulfide, Ag 1.2ppm, Cu and Te, in crude ore, in ground	Raw	kg	6,39E-07	6,39E-07	6,23E-07	6,23E-07	2,65E-07	2,65E-07
Silver, Ag 2.1E-4%, Au 2.1E-4%, in ore, in ground	Raw	kg	5,90E-08	5,90E-08	5,75E-08	5,75E-08	2,44E-08	2,44E-08
Silver, Ag 4.2E-3%, Au 1.1E-4%, in ore, in ground	Raw	kg	1,35E-07	1,35E-07	1,31E-07	1,31E-07	5,58E-08	5,58E-08
Silver, Ag 4.6E-5%, Au 1.3E-4%, in ore, in ground	Raw	kg	1,32E-07	1,32E-07	1,29E-07	1,29E-07	5,47E-08	5,47E-08
Silver, Ag 9.7E-4%, Au 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	8,71E-08	8,71E-08	8,49E-08	8,49E-08	3,61E-08	3,61E-08
Slate	Raw	kg	x	x	7,89E-17	7,89E-17	x	x
Sodium chloride	Raw	kg	3,96E-01	3,96E-01	6,41E-01	6,41E-01	7,35E-01	7,35E-01
Sodium nitrate	Raw	kg	4,94E-09	4,94E-09	5,20E-10	5,20E-10	5,11E-10	5,11E-10
Sodium sulphate	Raw	kg	5,55E-04	5,55E-04	1,48E-03	1,48E-03	2,63E-04	2,63E-04
Soil	Raw	kg	2,09E+01	2,09E+01	2,02E+01	2,02E+01	x	x
Stibnite	Raw	kg	4,03E-10	4,03E-10	2,63E-10	2,63E-10	1,05E-10	1,05E-10
Sulfur	Raw	kg	3,15E-03	3,15E-03	3,10E-03	3,10E-03	1,22E-02	1,22E-02
Talc	Raw	kg	1,96E-03	1,96E-03	4,95E-05	4,95E-05	1,08E-03	1,08E-03
Tantalum	Raw	kg	7,03E-07	7,03E-07	6,88E-07	6,88E-07	2,92E-07	2,92E-07
Tellurium	Raw	kg	9,58E-08	9,58E-08	9,34E-08	9,34E-08	3,97E-08	3,97E-08
Tin	Raw	kg	4,50E-05	4,50E-05	5,23E-05	5,23E-05	1,46E-04	1,46E-04

TiO2, 54% in ilmenite, 2.6% in crude ore, in ground	Raw	kg	2,15E-01	2,15E-01	2,10E-01	2,10E-01	1,39E-02	1,39E-02
TiO2, 95% in rutile, 0.40% in crude ore, in ground	Raw	kg	1,53E-08	1,53E-08	9,20E-09	9,20E-09	2,61E-08	2,61E-08
Titanium	Raw	kg	x	x	3,24E-07	3,24E-07	x	x
Transformation, from arable	Raw	m2	2,47E+01	2,47E+01	2,01E+01	2,01E+01	1,72E-04	1,72E-04
Transformation, from arable, non-irrigated	Raw	m2	3,52E+01	3,52E+01	2,68E+01	2,68E+01	1,06E-02	1,06E-02
Transformation, from arable, non-irrigated, fallow	Raw	m2	2,19E-05	2,19E-05	2,14E-05	2,14E-05	5,15E-05	5,15E-05
Transformation, from dump site, inert material landfill	Raw	m2	3,27E-04	3,27E-04	1,72E-04	1,72E-04	3,23E-04	3,23E-04
Transformation, from dump site, residual material landfill	Raw	m2	1,61E-04	1,61E-04	1,53E-04	1,53E-04	8,19E-05	8,19E-05
Transformation, from dump site, sanitary landfill	Raw	m2	1,81E-05	1,81E-05	1,76E-05	1,76E-05	3,97E-06	3,97E-06
Transformation, from dump site, slag compartment	Raw	m2	5,02E-05	5,02E-05	5,23E-05	5,23E-05	5,94E-05	5,94E-05
Transformation, from forest	Raw	m2	8,82E-03	8,82E-03	7,26E-03	7,26E-03	6,06E-03	6,06E-03
Transformation, from forest, extensive	Raw	m2	4,07E-01	4,07E-01	3,68E-01	3,68E-01	5,23E-02	5,23E-02
Transformation, from forest, intensive, clear-cutting	Raw	m2	7,37E-04	7,37E-04	6,82E-04	6,82E-04	7,98E-06	7,98E-06
Transformation, from industrial area	Raw	m2	1,16E-04	1,16E-04	6,22E-05	6,22E-05	5,07E-05	5,07E-05
Transformation, from industrial area, benthos	Raw	m2	2,84E-07	2,84E-07	2,17E-07	2,17E-07	1,61E-07	1,61E-07
Transformation, from industrial area, built up	Raw	m2	6,45E-05	6,45E-05	6,35E-05	6,35E-05	6,28E-08	6,28E-08
Transformation, from industrial area, vegetation	Raw	m2	1,10E-04	1,10E-04	1,08E-04	1,08E-04	1,07E-07	1,07E-07
Transformation, from mineral extraction site	Raw	m2	3,77E-03	3,77E-03	3,34E-03	3,34E-03	3,30E-03	3,30E-03
Transformation, from pasture and meadow	Raw	m2	2,60E-03	2,60E-03	2,04E-03	2,04E-03	9,02E-04	9,02E-04
Transformation, from pasture and meadow, intensive	Raw	m2	3,08E-03	3,08E-03	4,29E-05	4,29E-05	8,64E-06	8,64E-06
Transformation, from sea and ocean	Raw	m2	3,47E-03	3,47E-03	2,46E-03	2,46E-03	1,41E-03	1,41E-03
Transformation, from shrub land, sclerophyllous	Raw	m2	6,72E-02	6,72E-02	6,56E-02	6,56E-02	6,03E-04	6,03E-04
Transformation, from tropical rain forest	Raw	m2	7,37E-04	7,37E-04	6,82E-04	6,82E-04	7,98E-06	7,98E-06
Transformation, from unknown	Raw	m2	8,76E-03	8,76E-03	7,08E-03	7,08E-03	3,96E-03	3,96E-03
Transformation, to arable	Raw	m2	2,47E+01	2,47E+01	2,01E+01	2,01E+01	6,18E-04	6,18E-04

Transformation, to arable, non-irrigated	Raw	m2	3,53E+01	3,53E+01	2,69E+01	2,69E+01	1,06E-02	1,06E-02
Transformation, to arable, non-irrigated, fallow	Raw	m2	2,73E-05	2,73E-05	2,67E-05	2,67E-05	6,06E-05	6,06E-05
Transformation, to dump site	Raw	m2	5,23E-04	5,23E-04	2,29E-04	2,29E-04	2,68E-04	2,68E-04
Transformation, to dump site, benthos	Raw	m2	3,47E-03	3,47E-03	2,46E-03	2,46E-03	1,41E-03	1,41E-03
Transformation, to dump site, inert material landfill	Raw	m2	3,27E-04	3,27E-04	1,72E-04	1,72E-04	3,23E-04	3,23E-04
Transformation, to dump site, residual material landfill	Raw	m2	1,61E-04	1,61E-04	1,53E-04	1,53E-04	8,20E-05	8,20E-05
Transformation, to dump site, sanitary landfill	Raw	m2	1,81E-05	1,81E-05	1,76E-05	1,76E-05	3,97E-06	3,97E-06
Transformation, to dump site, slag compartment	Raw	m2	5,02E-05	5,02E-05	5,23E-05	5,23E-05	5,94E-05	5,94E-05
Transformation, to forest	Raw	m2	7,59E-04	7,59E-04	5,87E-04	5,87E-04	5,94E-04	5,94E-04
Transformation, to forest, intensive	Raw	m2	3,14E-02	3,14E-02	1,19E-03	1,19E-03	1,33E-03	1,33E-03
Transformation, to forest, intensive, clear-cutting	Raw	m2	7,37E-04	7,37E-04	6,82E-04	6,82E-04	7,98E-06	7,98E-06
Transformation, to forest, intensive, normal	Raw	m2	3,71E-01	3,71E-01	3,63E-01	3,63E-01	5,04E-02	5,04E-02
Transformation, to forest, intensive, short-cycle	Raw	m2	7,37E-04	7,37E-04	6,82E-04	6,82E-04	7,98E-06	7,98E-06
Transformation, to heterogeneous, agricultural	Raw	m2	3,28E-04	3,28E-04	2,55E-04	2,55E-04	1,55E-04	1,55E-04
Transformation, to industrial area	Raw	m2	2,00E-03	2,00E-03	1,57E-03	1,57E-03	5,70E-04	5,70E-04
Transformation, to industrial area, benthos	Raw	m2	3,48E-06	3,48E-06	3,49E-06	3,49E-06	7,90E-06	7,90E-06
Transformation, to industrial area, built up	Raw	m2	1,95E-03	1,95E-03	1,92E-03	1,92E-03	1,62E-03	1,62E-03
Transformation, to industrial area, vegetation	Raw	m2	1,98E-03	1,98E-03	1,94E-03	1,94E-03	6,36E-04	6,36E-04
Transformation, to mineral extraction site	Raw	m2	1,03E-02	1,03E-02	8,45E-03	8,45E-03	6,42E-03	6,42E-03
Transformation, to pasture and meadow	Raw	m2	1,20E-03	1,20E-03	1,16E-03	1,16E-03	2,83E-05	2,83E-05
Transformation, to permanent crop, fruit, intensive	Raw	m2	2,83E-04	2,83E-04	2,56E-04	2,56E-04	3,92E-06	3,92E-06
Transformation, to sea and ocean	Raw	m2	2,84E-07	2,84E-07	2,17E-07	2,17E-07	1,61E-07	1,61E-07
Transformation, to shrub land, sclerophyllous	Raw	m2	5,56E-04	5,56E-04	3,95E-04	3,95E-04	4,68E-04	4,68E-04
Transformation, to traffic area, rail embankment	Raw	m2	1,73E-05	1,73E-05	1,70E-05	1,70E-05	1,44E-05	1,44E-05
Transformation, to traffic area, rail network	Raw	m2	1,90E-05	1,90E-05	1,87E-05	1,87E-05	1,58E-05	1,58E-05
Transformation, to traffic area, road embankment	Raw	m2	4,21E-03	4,21E-03	3,63E-03	3,63E-03	5,34E-04	5,34E-04

Transformation, to traffic area, road network	Raw	m2	9,58E-04	9,58E-04	8,10E-04	8,10E-04	3,78E-04	3,78E-04
Transformation, to unknown	Raw	m2	1,96E-03	1,96E-03	1,92E-03	1,92E-03	2,81E-03	2,81E-03
Transformation, to urban, discontinuously built	Raw	m2	2,36E-04	2,36E-04	1,35E-04	1,35E-04	1,60E-07	1,60E-07
Transformation, to water bodies, artificial	Raw	m2	7,44E-04	7,44E-04	3,52E-04	3,52E-04	2,33E-04	2,33E-04
Transformation, to water courses, artificial	Raw	m2	4,95E-04	4,95E-04	2,29E-04	2,29E-04	2,84E-04	2,84E-04
Ulexite	Raw	kg	1,04E-05	1,04E-05	2,99E-06	2,99E-06	2,40E-06	2,40E-06
Uranium	Raw	kg	6,45E-04	6,45E-04	2,44E-04	2,44E-04	2,06E-04	2,06E-04
Vermiculite	Raw	kg	1,72E-05	1,72E-05	1,87E-05	1,87E-05	3,87E-06	3,87E-06
Volume occupied, final repository for low-active radioactive waste	Raw	m3	1,30E-06	1,30E-06	4,90E-07	4,90E-07	4,13E-07	4,13E-07
Volume occupied, final repository for radioactive waste	Raw	m3	3,28E-07	3,28E-07	1,22E-07	1,22E-07	1,04E-07	1,04E-07
Volume occupied, reservoir	Raw	m3y	1,11E+00	1,11E+00	4,71E-01	4,71E-01	4,65E-01	4,65E-01
Volume occupied, underground deposit	Raw	m3	4,68E-05	4,68E-05	4,64E-05	4,64E-05	2,83E-04	2,83E-04
Water, cooling, unspecified natural origin/m3	Raw	m3	1,56E+00	1,56E+00	9,48E-01	9,48E-01	7,35E-01	7,35E-01
Water, lake	Raw	m3	1,82E-02	1,82E-02	1,97E-02	1,97E-02	4,09E-03	4,09E-03
Water, rain	Raw	m3	x	x	x	x	x	x
Water, river	Raw	m3	5,97E+00	5,97E+00	4,75E+00	4,75E+00	1,22E-01	1,22E-01
Water, salt, ocean	Raw	m3	4,78E-02	4,78E-02	2,08E-02	2,08E-02	1,79E-02	1,79E-02
Water, salt, sole	Raw	m3	2,75E-01	2,75E-01	1,77E-01	1,77E-01	1,32E-03	1,32E-03
Water, turbine use, unspecified natural origin	Raw	m3	3,87E+02	3,87E+02	1,74E+02	1,74E+02	2,22E+02	2,22E+02
Water, unspecified natural origin/kg	Raw	kg	x	x	2,22E+00	2,22E+00	x	x
Water, unspecified natural origin/m3	Raw	m3	2,42E-01	2,42E-01	2,21E-01	2,21E-01	1,25E-01	1,25E-01
Water, well, in ground	Raw	m3	1,23E-01	1,23E-01	9,74E-02	9,74E-02	6,31E-02	6,31E-02
Wood, hard, standing	Raw	m3	6,77E-04	6,77E-04	3,33E-04	3,33E-04	4,96E-03	4,96E-03
Wood, primary forest, standing	Raw	m3	7,63E-06	7,63E-06	7,06E-06	7,06E-06	8,26E-08	8,26E-08
Wood, soft, standing	Raw	m3	2,21E-02	2,21E-02	1,87E-02	1,87E-02	1,54E-02	1,54E-02
Wood, unspecified, standing/m3	Raw	m3	4,54E-08	4,54E-08	2,47E-08	2,47E-08	5,59E-07	5,59E-07

Zinc	Raw	kg	8,88E-02	8,88E-02	8,80E-02	8,80E-02	4,89E-01	4,89E-01
Zirconium	Raw	kg	9,48E-07	9,48E-07	9,40E-07	9,40E-07	3,96E-07	3,96E-07
1-Butanol	Air	kg	4,15E-08	4,15E-08	4,06E-08	4,06E-08	1,62E-12	1,62E-12
1-Pentanol	Air	kg	3,79E-08	3,79E-08	1,82E-08	1,82E-08	2,43E-11	2,43E-11
1-Pentene	Air	kg	2,86E-08	2,86E-08	1,37E-08	1,37E-08	1,83E-11	1,83E-11
1-Propanol	Air	kg	5,20E-07	5,20E-07	3,73E-07	3,73E-07	5,23E-10	5,23E-10
1,4-Butanediol	Air	kg	1,47E-07	1,47E-07	1,44E-07	1,44E-07	1,01E-10	1,01E-10
2-Aminopropanol	Air	kg	1,98E-08	1,98E-08	1,92E-08	1,92E-08	1,09E-12	1,09E-12
2-Butene, 2-methyl-	Air	kg	6,35E-12	6,35E-12	3,05E-12	3,05E-12	4,07E-15	4,07E-15
2-Methyl-1-propanol	Air	kg	9,34E-08	9,34E-08	5,89E-08	5,89E-08	4,29E-11	4,29E-11
2-Nitrobenzoic acid	Air	kg	4,76E-08	4,76E-08	4,65E-08	4,65E-08	1,68E-12	1,68E-12
2-Propanol	Air	kg	4,42E-06	4,42E-06	4,39E-06	4,39E-06	1,79E-06	1,79E-06
Acenaphthene	Air	kg	8,95E-11	8,95E-11	1,49E-11	1,49E-11	9,53E-12	9,53E-12
Acetaldehyde	Air	kg	6,02E-05	6,02E-05	3,80E-04	3,80E-04	4,56E-05	4,56E-05
Acetic acid	Air	kg	1,37E-03	1,37E-03	4,62E-03	4,62E-03	6,81E-04	6,81E-04
Acetone	Air	kg	2,40E-05	2,40E-05	1,59E-05	1,59E-05	7,68E-06	7,68E-06
Acetonitrile	Air	kg	8,01E-07	8,01E-07	7,41E-07	7,41E-07	8,68E-09	8,68E-09
Acidity, unspecified	Air	kg	x	x	1,23E-09	1,23E-09	x	x
Acrolein	Air	kg	1,74E-08	1,74E-08	4,08E-08	4,08E-08	7,42E-09	7,42E-09
Acrylic acid	Air	kg	1,11E-08	1,11E-08	1,10E-08	1,10E-08	4,64E-09	4,64E-09
Actinides, radioactive, unspecified	Air	Bq	1,44E-02	1,44E-02	7,58E-03	7,58E-03	2,20E-02	2,20E-02
Aerosols, radioactive, unspecified	Air	Bq	2,77E-01	2,77E-01	9,97E-02	9,97E-02	8,66E-02	8,66E-02
Aldehydes, unspecified	Air	kg	7,61E-06	7,61E-06	7,09E-06	7,09E-06	1,97E-06	1,97E-06
Aluminium	Air	kg	2,03E-03	2,55E-03	1,10E-03	1,29E-03	2,46E-03	2,63E-03
Ammonia	Air	kg	6,22E-02	6,22E-02	5,16E-02	5,16E-02	5,71E-03	5,71E-03
Ammonium carbonate	Air	kg	1,61E-07	1,61E-07	9,06E-08	9,06E-08	8,79E-08	8,79E-08

Ammonium, ion	Air	kg	x	x	1,10E-12	1,10E-12	x	x
Aniline	Air	kg	1,90E-07	1,90E-07	1,20E-07	1,20E-07	9,38E-11	9,38E-11
Anthracene	Air	kg	x	x	2,69E-12	2,69E-12	x	x
Anthranilic acid	Air	kg	3,70E-08	3,70E-08	3,62E-08	3,62E-08	1,22E-12	1,22E-12
Antimony	Air	kg	1,81E-06	1,85E-06	8,07E-07	8,25E-07	4,50E-05	4,51E-05
Antimony-124	Air	Bq	2,45E-06	2,45E-06	1,88E-06	1,88E-06	1,08E-06	1,08E-06
Antimony-125	Air	Bq	2,56E-05	2,56E-05	1,88E-05	1,88E-05	1,12E-05	1,12E-05
Argon-41	Air	Bq	1,16E+02	1,16E+02	3,46E+01	3,46E+01	3,36E+01	3,36E+01
Arsenic	Air	kg	1,54E-05	1,82E-05	7,85E-06	8,90E-06	3,81E-05	3,89E-05
Arsenic trioxide	Air	kg	x	x	1,31E-14	1,31E-14	x	x
Arsine	Air	kg	1,29E-13	1,29E-13	1,22E-12	1,22E-12	5,41E-14	5,41E-14
Barium	Air	kg	6,75E-06	9,80E-06	3,59E-06	4,73E-06	3,09E-06	4,05E-06
Barium-140	Air	Bq	1,66E-03	1,66E-03	1,22E-03	1,22E-03	7,31E-04	7,31E-04
Benzal chloride	Air	kg	1,47E-14	1,47E-14	1,44E-14	1,44E-14	7,91E-14	7,91E-14
Benzaldehyde	Air	kg	5,66E-09	5,66E-09	1,99E-08	1,99E-08	1,32E-09	1,32E-09
Benzene	Air	kg	9,45E-04	9,45E-04	8,30E-04	8,30E-04	8,75E-04	8,75E-04
Benzene, 1-methyl-2-nitro-	Air	kg	4,11E-08	4,11E-08	4,01E-08	4,01E-08	1,45E-12	1,45E-12
Benzene, 1,2-dichloro-	Air	kg	2,62E-07	2,62E-07	2,23E-07	2,23E-07	6,97E-11	6,97E-11
Benzene, 1,3,5-trimethyl-	Air	kg	x	x	6,54E-15	6,54E-15	x	x
Benzene, ethyl-	Air	kg	2,23E-05	2,23E-05	2,03E-05	2,03E-05	3,77E-06	3,77E-06
Benzene, hexachloro-	Air	kg	3,16E-08	3,16E-08	3,23E-08	3,23E-08	1,18E-08	1,18E-08
Benzene, pentachloro-	Air	kg	6,93E-08	6,93E-08	7,23E-08	7,23E-08	2,50E-08	2,50E-08
Benzo(a)anthracene	Air	kg	x	x	1,35E-12	1,35E-12	x	x
Benzo(a)pyrene	Air	kg	1,29E-06	1,29E-06	8,25E-07	8,25E-07	1,01E-06	1,01E-06
Benzo(b)fluoranthene	Air	kg	x	x	2,41E-12	2,41E-12	x	x
Benzo(g,h,i)perylene	Air	kg	x	x	1,21E-12	1,21E-12	x	x

Beryllium	Air	kg	2,42E-08	9,06E-08	2,14E-08	4,65E-08	1,91E-08	4,01E-08
Boron	Air	kg	3,51E-04	3,52E-04	1,20E-04	1,21E-04	1,24E-04	1,24E-04
Boron trifluoride	Air	kg	1,77E-15	1,77E-15	1,76E-15	1,76E-15	7,40E-16	7,40E-16
Bromine	Air	kg	7,65E-05	7,65E-05	4,96E-05	4,96E-05	1,52E-05	1,52E-05
Butadiene	Air	kg	2,45E-08	2,45E-08	1,18E-08	1,18E-08	6,97E-11	6,97E-11
Butane	Air	kg	5,49E-04	5,49E-04	4,06E-04	4,06E-04	2,56E-04	2,56E-04
Butene	Air	kg	5,67E-06	5,67E-06	8,87E-06	8,87E-06	1,20E-05	1,20E-05
Butyrolactone	Air	kg	6,70E-11	6,70E-11	6,61E-11	6,61E-11	2,79E-11	2,79E-11
Cadmium	Air	kg	5,74E-06	5,81E-06	3,54E-06	3,57E-06	1,17E-05	1,17E-05
Calcium	Air	kg	3,51E-03	3,69E-03	3,37E-03	3,43E-03	1,91E-04	2,45E-04
Carbon-14	Air	Bq	1,14E+03	1,14E+03	4,36E+02	4,36E+02	3,66E+02	3,66E+02
Carbon dioxide, biogenic	Air	kg	7,16E+01	7,16E+01	7,03E+01	7,03E+01	1,46E+01	1,46E+01
Carbon dioxide, fossil	Air	kg	8,88E+01	8,88E+01	6,58E+01	6,58E+01	3,14E+01	3,14E+01
Carbon dioxide, land transformation	Air	kg	1,44E-02	1,44E-02	9,85E-01	9,85E-01	9,35E-04	9,35E-04
Carbon disulfide	Air	kg	3,51E-04	3,51E-04	1,94E-04	1,94E-04	5,15E-04	5,15E-04
Carbon monoxide, biogenic	Air	kg	1,39E+00	1,39E+00	1,36E+00	1,36E+00	6,15E-03	6,15E-03
Carbon monoxide, fossil	Air	kg	8,09E-02	8,09E-02	7,02E-02	7,02E-02	5,48E-02	5,48E-02
Cerium-141	Air	Bq	4,03E-04	4,03E-04	2,96E-04	2,96E-04	1,77E-04	1,77E-04
Cesium-134	Air	Bq	1,93E-05	1,93E-05	7,89E-05	7,89E-05	8,49E-06	8,49E-06
Cesium-137	Air	Bq	3,42E-04	3,42E-04	3,84E-04	3,84E-04	1,51E-04	1,51E-04
Chloramine	Air	kg	1,83E-07	1,83E-07	1,13E-07	1,13E-07	8,72E-11	8,72E-11
Chloride	Air	kg	x	x	1,11E-08	1,11E-08	x	x
Chlorine	Air	kg	1,38E-04	1,45E-04	1,43E-04	1,46E-04	5,51E-04	5,53E-04
Chloroacetic acid	Air	kg	6,23E-07	6,23E-07	5,41E-07	5,41E-07	1,22E-09	1,22E-09
Chloroform	Air	kg	6,37E-07	6,37E-07	5,17E-07	5,17E-07	1,05E-08	1,05E-08
Chlorosilane, trimethyl-	Air	kg	1,06E-06	1,06E-06	1,06E-06	1,06E-06	1,67E-06	1,67E-06

Chlorosulfonic acid	Air	kg	5,79E-08	5,79E-08	5,56E-08	5,56E-08	1,17E-11	1,17E-11
Chromium	Air	kg	4,50E-05	4,50E-05	3,79E-05	3,79E-05	2,22E-05	2,22E-05
Chromium-51	Air	Bq	2,58E-05	2,58E-05	1,90E-05	1,90E-05	1,14E-05	1,14E-05
Chromium VI	Air	kg	1,12E-06	1,46E-06	9,12E-07	1,04E-06	4,82E-07	5,89E-07
Chromium, ion	Air	kg	x	x	3,87E-12	3,87E-12	x	x
Chrysene	Air	kg	x	x	3,32E-12	3,32E-12	x	x
Cobalt	Air	kg	4,52E-06	4,95E-06	3,42E-06	3,58E-06	1,60E-06	1,73E-06
Cobalt-58	Air	Bq	3,60E-05	3,60E-05	2,68E-05	2,68E-05	1,58E-05	1,58E-05
Cobalt-60	Air	Bq	3,18E-04	3,18E-04	2,44E-04	2,44E-04	1,40E-04	1,40E-04
Copper	Air	kg	6,50E-05	6,95E-05	4,16E-05	4,33E-05	2,84E-05	2,99E-05
Cumene	Air	kg	1,90E-04	1,90E-04	1,91E-04	1,91E-04	4,31E-04	4,31E-04
Cyanide	Air	kg	9,37E-05	9,37E-05	1,15E-04	1,15E-04	1,39E-05	1,39E-05
Cyanoacetic acid	Air	kg	4,74E-08	4,74E-08	4,56E-08	4,56E-08	9,58E-12	9,58E-12
Cyclohexane	Air	kg	x	x	5,71E-11	5,71E-11	x	x
Dibenz(a,h)anthracene	Air	kg	x	x	7,52E-13	7,52E-13	x	x
Diethanolamine	Air	kg	x	x	1,79E-17	1,79E-17	x	x
Diethylamine	Air	kg	8,87E-08	8,87E-08	5,73E-08	5,73E-08	4,23E-11	4,23E-11
Dimethyl malonate	Air	kg	5,94E-08	5,94E-08	5,71E-08	5,71E-08	1,20E-11	1,20E-11
Dinitrogen monoxide	Air	kg	1,52E-02	1,52E-02	1,12E-02	1,12E-02	8,80E-03	8,80E-03
Dioxin, 2,3,7,8 Tetrachlorodibenzo-p-	Air	kg	2,46E-10	2,46E-10	2,57E-10	2,57E-10	1,04E-10	1,04E-10
Dipropylamine	Air	kg	4,54E-08	4,54E-08	2,57E-08	2,57E-08	2,64E-11	2,64E-11
Ethane	Air	kg	1,94E-03	1,94E-03	1,45E-03	1,45E-03	1,21E-03	1,21E-03
Ethane, 1,1-difluoro-, HFC-152a	Air	kg	2,85E-08	2,85E-08	9,24E-09	9,24E-09	8,65E-09	8,65E-09
Ethane, 1,1,1-trichloro-, HCFC-140	Air	kg	1,39E-10	1,39E-10	7,32E-11	7,32E-11	2,12E-10	2,12E-10
Ethane, 1,1,1,2-tetrafluoro-, HFC-134a	Air	kg	3,96E-06	3,96E-06	3,62E-06	3,62E-06	1,72E-06	1,72E-06
Ethane, 1,1,2-trichloro-1,2,2-trifluoro-, CFC-113	Air	kg	5,27E-10	5,27E-10	5,23E-10	5,23E-10	2,20E-10	2,20E-10

Ethane, 1,2-dichloro-	Air	kg	9,79E-06	9,79E-06	2,15E-05	2,15E-05	3,41E-05	3,41E-05
Ethane, 1,2-dichloro-1,1,2,2-tetrafluoro-, CFC-114	Air	kg	4,70E-07	4,70E-07	1,79E-07	1,79E-07	1,40E-07	1,40E-07
Ethane, hexafluoro-, HFC-116	Air	kg	3,05E-06	3,05E-06	2,97E-06	2,97E-06	7,68E-06	7,68E-06
Ethanol	Air	kg	3,93E-05	3,93E-05	2,96E-05	2,96E-05	9,34E-06	9,34E-06
Ethene	Air	kg	1,88E-04	1,88E-04	1,89E-04	1,89E-04	1,67E-04	1,67E-04
Ethene, chloro-	Air	kg	2,09E-06	2,09E-06	8,14E-06	8,14E-06	1,73E-05	1,73E-05
Ethene, tetrachloro-	Air	kg	2,66E-05	2,66E-05	2,66E-05	2,66E-05	2,66E-05	2,66E-05
Ethyl acetate	Air	kg	2,01E-05	2,01E-05	2,28E-05	2,28E-05	8,67E-06	8,67E-06
Ethyl cellulose	Air	kg	4,03E-08	4,03E-08	4,00E-08	4,00E-08	1,68E-08	1,68E-08
Ethylamine	Air	kg	3,48E-07	3,48E-07	3,25E-07	3,25E-07	4,53E-10	4,53E-10
Ethylene diamine	Air	kg	3,80E-07	3,80E-07	1,60E-08	1,60E-08	8,36E-10	8,36E-10
Ethylene oxide	Air	kg	8,50E-07	8,50E-07	8,22E-07	8,22E-07	2,68E-06	2,68E-06
Ethyne	Air	kg	8,56E-05	8,56E-05	8,35E-05	8,35E-05	8,34E-06	8,34E-06
Fluoranthene	Air	kg	x	x	8,76E-12	8,76E-12	x	x
Fluorene	Air	kg	x	x	2,78E-11	2,78E-11	x	x
Fluoride	Air	kg	x	x	1,56E-08	1,56E-08	x	x
Fluorine	Air	kg	2,95E-05	6,15E-05	2,71E-05	3,92E-05	2,23E-06	1,24E-05
Fluosilicic acid	Air	kg	3,52E-06	3,52E-06	3,43E-06	3,43E-06	8,96E-06	8,96E-06
Formaldehyde	Air	kg	5,08E-04	5,08E-04	4,74E-04	4,74E-04	1,17E-03	1,17E-03
Formamide	Air	kg	6,93E-08	6,93E-08	3,33E-08	3,33E-08	4,44E-11	4,44E-11
Formic acid	Air	kg	5,40E-06	5,40E-06	4,99E-06	4,99E-06	6,85E-08	6,85E-08
Furan	Air	kg	1,52E-06	1,52E-06	1,41E-06	1,41E-06	1,65E-08	1,65E-08
Heat, waste	Air	MJ	2,23E+03	2,23E+03	1,68E+03	1,68E+03	6,60E+02	6,60E+02
Helium	Air	kg	1,32E-05	1,32E-05	1,08E-05	1,08E-05	5,46E-06	5,46E-06
Heptane	Air	kg	5,24E-05	5,24E-05	4,12E-05	4,12E-05	2,13E-05	2,13E-05
Hexamethylene diamine	Air	kg	x	x	3,78E-14	3,78E-14	x	x
Hexane	Air	kg	3,05E-04	3,05E-04	1,39E-04	1,39E-04	5,39E-05	5,39E-05

Hydrocarbons, aliphatic, alkanes, cyclic	Air	kg	9,84E-07	9,84E-07	1,04E-06	1,04E-06	6,84E-06	6,84E-06
Hydrocarbons, aliphatic, alkanes, unspecified	Air	kg	1,11E-03	1,11E-03	2,81E-03	2,81E-03	5,31E-04	5,31E-04
Hydrocarbons, aliphatic, unsaturated	Air	kg	1,78E-03	1,78E-03	1,64E-03	1,64E-03	1,13E-04	1,13E-04
Hydrocarbons, aromatic	Air	kg	9,29E-05	9,29E-05	7,21E-05	7,21E-05	6,93E-05	6,93E-05
Hydrocarbons, chlorinated	Air	kg	6,26E-05	6,26E-05	9,14E-05	9,14E-05	3,54E-04	3,54E-04
Hydrogen	Air	kg	4,34E-04	4,34E-04	6,75E-04	6,75E-04	3,85E-04	3,85E-04
Hydrogen-3, Tritium	Air	Bq	6,46E+03	6,46E+03	2,35E+03	2,35E+03	2,03E+03	2,03E+03
Hydrogen bromide	Air	kg	x	x	1,11E-10	1,11E-10	x	x
Hydrogen chloride	Air	kg	3,10E-03	3,10E-03	1,65E-03	1,65E-03	1,56E-03	1,56E-03
Hydrogen cyanide	Air	kg	x	x	1,72E-09	1,72E-09	x	x
Hydrogen fluoride	Air	kg	7,25E-04	7,25E-04	3,66E-04	3,66E-04	4,59E-04	4,59E-04
Hydrogen iodide	Air	kg	x	x	1,19E-13	1,19E-13	x	x
Hydrogen peroxide	Air	kg	2,99E-08	2,99E-08	2,97E-08	2,97E-08	1,25E-08	1,25E-08
Hydrogen sulfide	Air	kg	3,05E-04	3,05E-04	2,46E-04	2,46E-04	2,69E-04	2,69E-04
Indeno(1,2,3-cd)pyrene	Air	kg	x	x	8,98E-13	8,98E-13	x	x
Iodine	Air	kg	2,11E-05	2,11E-05	7,42E-06	7,42E-06	7,06E-06	7,06E-06
Iodine-129	Air	Bq	1,13E+00	1,13E+00	4,14E-01	4,14E-01	3,57E-01	3,57E-01
Iodine-131	Air	Bq	4,59E+01	4,59E+01	1,33E+01	1,33E+01	1,32E+01	1,32E+01
Iodine-133	Air	Bq	3,36E-03	3,36E-03	1,99E-03	1,99E-03	1,34E-03	1,34E-03
Iodine-135	Air	Bq	2,98E-03	2,98E-03	1,16E-03	1,16E-03	1,00E-03	1,00E-03
Iron	Air	kg	3,48E-05	6,07E-04	3,96E-05	2,55E-04	4,85E-05	2,29E-04
Isocyanic acid	Air	kg	5,23E-03	5,23E-03	5,04E-03	5,04E-03	1,82E-07	1,82E-07
Isoprene	Air	kg	7,06E-08	7,06E-08	6,53E-08	6,53E-08	7,65E-10	7,65E-10
Isopropylamine	Air	kg	1,15E-07	1,15E-07	1,13E-07	1,13E-07	1,36E-10	1,36E-10
Krypton-85	Air	Bq	3,65E+02	3,65E+02	1,08E+02	1,08E+02	1,06E+02	1,06E+02
Krypton-85m	Air	Bq	2,97E+01	2,97E+01	8,73E+03	8,73E+03	1,22E+01	1,22E+01

Krypton-87	Air	Bq	9,73E+00	9,73E+00	5,18E+00	5,18E+00	3,61E+00	3,61E+00
Krypton-88	Air	Bq	1,05E+01	1,05E+01	6,16E+00	6,16E+00	4,08E+00	4,08E+00
Krypton-89	Air	Bq	3,28E+00	3,28E+00	2,28E+00	2,28E+00	1,40E+00	1,40E+00
Lactic acid	Air	kg	3,56E-08	3,56E-08	2,01E-08	2,01E-08	2,07E-11	2,07E-11
Lanthanum-140	Air	Bq	1,42E-04	1,42E-04	1,04E-04	1,04E-04	6,25E-05	6,25E-05
Lead	Air	kg	6,97E-05	7,45E-05	4,75E-05	4,93E-05	8,31E-05	8,46E-05
Lead-210	Air	Bq	9,45E+00	9,45E+00	5,81E+00	5,81E+00	2,37E+00	2,37E+00
Lead compounds	Air	kg	x	x	7,72E-15	7,72E-15	x	x
m-Xylene	Air	kg	6,65E-05	6,65E-05	6,26E-05	6,26E-05	3,50E-06	3,50E-06
Magnesium	Air	kg	2,30E-04	2,83E-04	2,25E-04	2,45E-04	5,10E-05	6,76E-05
Manganese	Air	kg	1,03E-04	1,15E-04	9,35E-05	9,79E-05	8,52E-06	1,23E-05
Manganese-54	Air	Bq	1,32E-05	1,32E-05	9,72E-06	9,72E-06	5,82E-06	5,82E-06
Mercury	Air	kg	2,44E-06	2,48E-06	1,70E-06	1,71E-06	2,73E-06	2,75E-06
Methane	Air	kg	x	x	8,58E-04	8,58E-04	x	x
Methane, biogenic	Air	kg	5,92E-02	5,92E-02	4,93E-02	4,93E-02	1,28E-03	1,28E-03
Methane, bromo-, Halon 1001	Air	kg	3,35E-15	3,35E-15	3,29E-15	3,29E-15	1,81E-14	1,81E-14
Methane, bromochlorodifluoro-, Halon 1211	Air	kg	4,74E-07	4,74E-07	3,71E-07	3,71E-07	2,96E-07	2,96E-07
Methane, bromotrifluoro-, Halon 1301	Air	kg	1,46E-07	1,46E-07	1,16E-07	1,16E-07	5,94E-08	5,94E-08
Methane, chlorodifluoro-, HCFC-22	Air	kg	1,87E-06	1,87E-06	1,34E-06	1,34E-06	1,04E-06	1,04E-06
Methane, chlorotrifluoro-, CFC-13	Air	kg	x	x	3,84E-10	3,84E-10	x	x
Methane, dichloro-, HCC-30	Air	kg	2,08E-07	2,08E-07	1,42E-07	1,42E-07	3,82E-09	3,82E-09
Methane, dichlorodifluoro-, CFC-12	Air	kg	1,34E-07	1,34E-07	8,81E-07	8,81E-07	1,31E-06	1,31E-06
Methane, dichlorofluoro-, HCFC-21	Air	kg	4,05E-12	4,05E-12	4,06E-12	4,06E-12	1,57E-12	1,57E-12
Methane, fossil	Air	kg	1,40E-01	1,40E-01	9,18E-02	9,18E-02	8,12E-02	8,12E-02
Methane, monochloro-, R-40	Air	kg	1,56E-06	1,56E-06	3,88E-06	3,88E-06	6,82E-08	6,82E-08
Methane, tetrachloro-, CFC-10	Air	kg	2,09E-07	2,09E-07	2,59E-07	2,59E-07	6,45E-07	6,45E-07

Methane, tetrafluoro-, CFC-14	Air	kg	2,71E-05	2,71E-05	2,64E-05	2,64E-05	6,90E-05	6,90E-05
Methane, trichlorofluoro-, CFC-11	Air	kg	6,58E-12	6,58E-12	2,85E-09	2,85E-09	2,55E-12	2,55E-12
Methane, trifluoro-, HFC-23	Air	kg	1,29E-09	1,29E-09	1,29E-09	1,29E-09	4,99E-10	4,99E-10
Methanesulfonic acid	Air	kg	4,79E-08	4,79E-08	4,60E-08	4,60E-08	9,69E-12	9,69E-12
Methanol	Air	kg	7,69E-04	7,69E-04	1,88E-03	1,88E-03	6,18E-04	6,18E-04
Methyl acetate	Air	kg	1,10E-08	1,10E-08	1,08E-08	1,08E-08	3,88E-13	3,88E-13
Methyl acrylate	Air	kg	1,26E-08	1,26E-08	1,25E-08	1,25E-08	5,26E-09	5,26E-09
Methyl amine	Air	kg	2,36E-08	2,36E-08	2,28E-08	2,28E-08	1,42E-11	1,42E-11
Methyl borate	Air	kg	1,59E-08	1,59E-08	8,59E-09	8,59E-09	9,06E-12	9,06E-12
Methyl ethyl ketone	Air	kg	2,00E-05	2,00E-05	1,98E-05	1,98E-05	8,34E-06	8,34E-06
Methyl formate	Air	kg	1,84E-08	1,84E-08	8,84E-09	8,84E-09	3,21E-11	3,21E-11
Methyl lactate	Air	kg	3,91E-08	3,91E-08	2,21E-08	2,21E-08	2,27E-11	2,27E-11
Molybdenum	Air	kg	1,19E-06	2,11E-06	8,99E-07	1,24E-06	4,98E-07	7,88E-07
Monoethanolamine	Air	kg	3,24E-05	3,24E-05	3,22E-05	3,22E-05	4,82E-05	4,82E-05
Naphthalene	Air	kg	x	x	2,82E-10	2,82E-10	x	x
Nickel	Air	kg	7,06E-05	7,16E-05	4,83E-05	4,87E-05	3,26E-05	3,29E-05
Niobium-95	Air	Bq	1,57E-06	1,57E-06	1,15E-06	1,15E-06	6,91E-07	6,91E-07
Nitrate	Air	kg	1,64E-06	6,16E-06	6,30E-07	2,33E-06	5,97E-07	2,02E-06
Nitric oxide	Air	kg	x	x	8,30E-13	8,30E-13	x	x
Nitrobenzene	Air	kg	2,86E-07	2,86E-07	1,91E-07	1,91E-07	1,27E-10	1,27E-10
Nitrogen	Air	kg	x	x	3,91E-04	3,91E-04	x	x
Nitrogen oxides	Air	kg	2,16E-01	2,16E-01	1,66E-01	1,66E-01	7,12E-02	7,12E-02
NMVOC, non-methane volatile organic compounds, unspecified origin	Air	kg	3,30E-02	3,30E-02	2,62E-02	2,62E-02	1,74E-02	1,74E-02
Noble gases, radioactive, unspecified	Air	Bq	1,08E+07	1,08E+07	3,98E+06	3,98E+06	3,43E+06	3,43E+06
Octane	Air	kg	x	x	1,49E-08	1,49E-08	x	x
Oxygen	Air	kg	x	x	2,47E-05	2,47E-05	x	x

Ozone	Air	kg	3,04E-04	3,04E-04	1,26E-04	1,26E-04	1,15E-04	1,15E-04
PAH, polycyclic aromatic hydrocarbons	Air	kg	2,14E-05	2,14E-05	1,93E-05	1,93E-05	2,67E-05	2,67E-05
Palladium	Air	kg	x	x	2,48E-18	2,48E-18	x	x
Particulates, < 10 um	Air	kg	x	x	6,89E-07	6,89E-07	x	x
Particulates, < 2.5 um	Air	kg	4,68E-02	4,72E-02	3,91E-02	3,93E-02	1,49E-02	1,50E-02
Particulates, > 10 um	Air	kg	1,90E-01	1,91E-01	1,70E-01	1,71E-01	4,52E-02	4,55E-02
Particulates, > 2.5 um, and < 10um	Air	kg	2,31E-02	2,37E-02	2,12E-02	2,14E-02	2,81E-02	2,83E-02
Particulates, unspecified	Air	kg	x	x	x	x	x	x
Pentane	Air	kg	7,74E-04	7,74E-04	5,98E-04	5,98E-04	3,38E-04	3,38E-04
Phenanthrene	Air	kg	x	x	8,87E-11	8,87E-11	x	x
Phenol	Air	kg	3,27E-04	3,27E-04	3,28E-04	3,28E-04	6,11E-04	6,11E-04
Phenol, 2,4-dichloro-	Air	kg	8,04E-08	8,04E-08	7,87E-08	7,87E-08	2,49E-12	2,49E-12
Phenol, pentachloro-	Air	kg	3,04E-07	3,04E-07	1,09E-07	1,09E-07	8,11E-08	8,11E-08
Phosphine	Air	kg	9,60E-12	9,60E-12	9,54E-12	9,54E-12	4,01E-12	4,01E-12
Phosphorus	Air	kg	1,71E-04	1,72E-04	1,64E-04	1,64E-04	1,38E-05	1,40E-05
Platinum	Air	kg	1,39E-11	1,39E-11	4,44E-12	4,44E-12	3,57E-12	3,57E-12
Plutonium-238	Air	Bq	1,54E-07	1,54E-07	5,65E-08	5,65E-08	4,87E-08	4,87E-08
Plutonium-alpha	Air	Bq	3,53E-07	3,53E-07	1,54E-07	1,54E-07	1,12E-07	1,12E-07
Polonium-210	Air	Bq	1,43E+01	1,43E+01	7,99E+00	7,99E+00	4,20E+00	4,20E+00
Polychlorinated biphenyls	Air	kg	7,39E-09	7,39E-09	6,14E-09	6,14E-09	3,57E-09	3,57E-09
Potassium	Air	kg	1,31E-02	1,32E-02	1,24E-02	1,24E-02	7,04E-04	7,32E-04
Potassium-40	Air	Bq	1,39E+00	1,39E+00	5,90E-01	5,90E-01	5,50E-01	5,50E-01
Propanal	Air	kg	3,58E-07	3,58E-07	2,51E-07	2,51E-07	1,65E-09	1,65E-09
Propane	Air	kg	8,40E-04	8,40E-04	6,37E-04	6,37E-04	4,47E-04	4,47E-04
Propene	Air	kg	1,30E-04	1,30E-04	1,34E-04	1,34E-04	5,12E-04	5,12E-04
Propionic acid	Air	kg	5,68E-06	5,68E-06	4,35E-06	4,35E-06	3,11E-06	3,11E-06

Propylamine	Air	kg	2,19E-08	2,19E-08	1,05E-08	1,05E-08	1,41E-11	1,41E-11
Propylene oxide	Air	kg	4,21E-07	4,21E-07	3,57E-07	3,57E-07	4,10E-04	4,10E-04
Protactinium-234	Air	Bq	1,56E-01	1,56E-01	5,89E-02	5,89E-02	5,04E-02	5,04E-02
Radioactive species, other beta emitters	Air	Bq	6,22E+00	6,22E+00	4,05E+00	4,05E+00	1,63E+00	1,63E+00
Radium-226	Air	Bq	1,29E+01	1,29E+01	8,72E+00	8,72E+00	2,19E+00	2,19E+00
Radium-228	Air	Bq	7,37E-01	7,37E-01	5,13E-01	5,13E-01	6,80E-01	6,80E-01
Radon-220	Air	Bq	5,64E+01	5,64E+01	1,76E+01	1,76E+01	1,63E+01	1,63E+01
Radon-222	Air	Bq	4,84E+05	2,06E+07	1,85E+05	7,77E+06	1,52E+05	6,51E+06
Rhodium	Air	kg	x	x	2,39E-18	2,39E-18	x	x
Ruthenium-103	Air	Bq	3,45E-07	3,45E-07	2,53E-07	2,53E-07	1,52E-07	1,52E-07
Scandium	Air	kg	1,18E-08	1,89E-06	1,11E-08	7,20E-07	1,59E-08	6,11E-07
Selenium	Air	kg	4,76E-06	5,02E-06	2,16E-06	2,26E-06	1,79E-06	1,87E-06
Silicon	Air	kg	6,69E-04	7,86E-04	9,86E-04	1,03E-03	8,08E-04	8,45E-04
Silicon tetrafluoride	Air	kg	1,37E-06	1,37E-06	1,34E-06	1,34E-06	1,33E-09	1,33E-09
Silver	Air	kg	4,71E-09	8,35E-08	1,62E-09	3,13E-08	1,44E-09	2,63E-08
Silver-110	Air	Bq	3,42E-06	3,42E-06	2,51E-06	2,51E-06	1,50E-06	1,50E-06
Sodium	Air	kg	9,54E-04	9,85E-04	9,20E-04	9,32E-04	7,24E-05	8,21E-05
Sodium chlorate	Air	kg	5,37E-08	5,37E-08	8,45E-08	8,45E-08	1,79E-08	1,79E-08
Sodium dichromate	Air	kg	1,02E-06	1,02E-06	1,48E-07	1,48E-07	8,82E-08	8,82E-08
Sodium formate	Air	kg	1,11E-06	1,11E-06	2,87E-08	2,87E-08	3,84E-08	3,84E-08
Sodium hydroxide	Air	kg	1,11E-07	1,11E-07	1,11E-07	1,11E-07	4,66E-08	4,66E-08
Strontium	Air	kg	6,28E-06	8,19E-06	3,24E-06	3,96E-06	3,58E-06	4,18E-06
Styrene	Air	kg	3,48E-07	3,48E-07	3,69E-07	3,69E-07	1,65E-07	1,65E-07
Sulfate	Air	kg	1,27E-02	1,31E-02	1,23E-02	1,25E-02	2,09E-03	2,24E-03
Sulfur dioxide	Air	kg	2,33E-01	2,33E-01	1,49E-01	1,49E-01	1,09E-01	1,09E-01
Sulfur hexafluoride	Air	kg	7,52E-06	7,52E-06	4,20E-06	4,20E-06	1,77E-06	1,77E-06

Sulfur trioxide	Air	kg	1,92E-06	1,92E-06	1,16E-06	1,16E-06	1,03E-09	1,03E-09
Sulfuric acid	Air	kg	2,34E-08	2,34E-08	2,32E-08	2,32E-08	9,76E-09	9,76E-09
t-Butyl methyl ether	Air	kg	6,88E-07	6,88E-07	6,43E-07	6,43E-07	7,79E-08	7,79E-08
t-Butylamine	Air	kg	1,47E-07	1,47E-07	1,44E-07	1,44E-07	1,64E-10	1,64E-10
Tellurium	Air	kg	x	x	5,16E-13	5,16E-13	x	x
Terpenes	Air	kg	6,68E-07	6,68E-07	6,18E-07	6,18E-07	7,23E-09	7,23E-09
Thallium	Air	kg	2,75E-08	2,75E-08	1,09E-07	1,09E-07	2,71E-08	2,71E-08
Thorium	Air	kg	1,08E-08	1,08E-08	1,30E-08	1,30E-08	1,98E-08	1,98E-08
Thorium-228	Air	Bq	2,93E-01	2,93E-01	1,35E-01	1,35E-01	1,35E-01	1,35E-01
Thorium-230	Air	Bq	6,27E+00	6,27E+00	5,74E+00	5,74E+00	1,86E-01	1,86E-01
Thorium-232	Air	Bq	4,97E-01	4,97E-01	2,42E-01	2,42E-01	1,71E-01	1,71E-01
Thorium-234	Air	Bq	1,56E-01	1,56E-01	5,89E-02	5,89E-02	5,04E-02	5,04E-02
Tin	Air	kg	1,97E-06	2,07E-06	1,05E-06	1,09E-06	9,16E-07	9,51E-07
Tin oxide	Air	kg	x	x	6,72E-16	6,72E-16	x	x
Titanium	Air	kg	1,66E-04	2,00E-04	1,61E-04	1,74E-04	4,61E-06	1,55E-05
Toluene	Air	kg	3,10E-04	3,10E-04	2,75E-04	2,75E-04	8,14E-05	8,14E-05
Toluene, 2-chloro-	Air	kg	1,31E-07	1,31E-07	1,02E-07	1,02E-07	3,95E-11	3,95E-11
Trimethylamine	Air	kg	2,32E-08	2,32E-08	2,27E-08	2,27E-08	6,88E-13	6,88E-13
Tungsten	Air	kg	4,66E-10	2,13E-07	1,75E-10	8,03E-08	1,47E-10	6,74E-08
Uranium	Air	kg	1,15E-08	1,15E-08	1,47E-08	1,47E-08	2,24E-08	2,24E-08
Uranium-234	Air	Bq	7,51E+00	7,51E+00	6,20E+00	6,20E+00	5,78E-01	5,78E-01
Uranium-235	Air	Bq	8,80E-02	8,80E-02	3,53E-02	3,53E-02	2,78E-02	2,78E-02
Uranium-238	Air	Bq	8,60E+00	8,60E+00	6,68E+00	6,68E+00	1,01E+00	1,01E+00
Uranium alpha	Air	Bq	8,47E+00	8,47E+00	3,19E+00	3,19E+00	2,68E+00	2,68E+00
Used air	Air	kg	x	x	6,00E+00	6,00E+00	x	x
Vanadium	Air	kg	1,18E-04	1,21E-04	9,02E-05	9,15E-05	4,89E-05	5,00E-05

VOC, volatile organic compounds	Air	kg	x	x	4,37E-07	4,37E-07	x	x
Water	Air	kg	4,00E-01	4,00E-01	1,54E+00	1,54E+00	4,01E-01	4,01E-01
Xenon-131m	Air	Bq	4,65E+01	4,65E+01	2,59E+01	2,59E+01	1,76E+01	1,76E+01
Xenon-133	Air	Bq	1,55E+03	1,55E+03	9,05E+02	9,05E+02	6,01E+02	6,01E+02
Xenon-133m	Air	Bq	4,88E+00	4,88E+00	1,84E+00	1,84E+00	1,55E+00	1,55E+00
Xenon-135	Air	Bq	6,30E+02	6,30E+02	3,65E+02	3,65E+02	2,43E+02	2,43E+02
Xenon-135m	Air	Bq	3,80E+02	3,80E+02	2,25E+02	2,25E+02	1,49E+02	1,49E+02
Xenon-137	Air	Bq	8,99E+00	8,99E+00	6,25E+00	6,25E+00	3,83E+00	3,83E+00
Xenon-138	Air	Bq	7,35E+01	7,35E+01	4,85E+01	4,85E+01	3,05E+01	3,05E+01
Xylene	Air	kg	2,63E-04	2,63E-04	9,93E-05	9,93E-05	8,20E-05	8,20E-05
Zinc	Air	kg	3,74E-04	3,77E-04	3,48E-04	3,50E-04	9,24E-04	9,25E-04
Zinc-65	Air	Bq	6,60E-05	6,60E-05	4,85E-05	4,85E-05	2,91E-05	2,91E-05
Zinc oxide	Air	kg	x	x	1,34E-15	1,34E-15	x	x
Zirconium	Air	kg	4,26E-08	4,26E-08	4,07E-08	4,07E-08	5,98E-08	5,98E-08
Zirconium-95	Air	Bq	6,45E-05	6,45E-05	4,74E-05	4,74E-05	2,84E-05	2,84E-05
1-Butanol	Water	kg	1,77E-07	1,77E-07	1,73E-07	1,73E-07	3,03E-08	3,03E-08
1-Pentanol	Water	kg	9,09E-08	9,09E-08	4,36E-08	4,36E-08	5,82E-11	5,82E-11
1-Pentene	Water	kg	6,87E-08	6,87E-08	3,30E-08	3,30E-08	4,40E-11	4,40E-11
1-Propanol	Water	kg	1,79E-07	1,79E-07	1,14E-07	1,14E-07	8,93E-11	8,93E-11
1,4-Butanediol	Water	kg	5,87E-08	5,87E-08	5,74E-08	5,74E-08	4,05E-11	4,05E-11
2-Aminopropanol	Water	kg	4,75E-08	4,75E-08	4,60E-08	4,60E-08	2,72E-12	2,72E-12
2-Methyl-1-propanol	Water	kg	2,24E-07	2,24E-07	1,41E-07	1,41E-07	1,03E-10	1,03E-10
2-Methyl-2-butene	Water	kg	1,52E-11	1,52E-11	7,31E-12	7,31E-12	9,76E-15	9,76E-15
2-Propanol	Water	kg	6,39E-07	6,39E-07	6,27E-07	6,27E-07	7,53E-10	7,53E-10
4-Methyl-2-pentanone	Water	kg	8,70E-11	8,70E-11	8,54E-11	8,54E-11	4,70E-10	4,70E-10
Acenaphthene	Water	kg	1,50E-09	1,50E-09	1,27E-09	1,27E-09	6,06E-10	6,06E-10

Acenaphthylene	Water	kg	9,35E-11	9,35E-11	1,15E-10	1,15E-10	3,79E-11	3,79E-11
Acetaldehyde	Water	kg	3,11E-06	3,11E-06	1,68E-03	1,68E-03	1,86E-04	1,86E-04
Acetic acid	Water	kg	1,52E-04	1,52E-04	2,39E-02	2,39E-02	2,63E-03	2,63E-03
Acetone	Water	kg	2,40E-07	2,40E-07	1,12E-07	1,12E-07	1,97E-09	1,97E-09
Acetonitrile	Water	kg	3,97E-08	3,97E-08	3,82E-08	3,82E-08	8,03E-12	8,03E-12
Acetyl chloride	Water	kg	7,14E-08	7,14E-08	3,43E-08	3,43E-08	4,58E-11	4,58E-11
Acidity, unspecified	Water	kg	2,81E-05	2,81E-05	2,57E-05	2,57E-05	2,72E-06	2,72E-06
Acids, unspecified	Water	kg	1,15E-01	1,15E-01	1,13E-01	1,13E-01	x	x
Acrylate, ion	Water	kg	2,63E-08	2,63E-08	2,61E-08	2,61E-08	1,10E-08	1,10E-08
Acrylonitrile	Water	kg	x	x	2,22E-12	2,22E-12	x	x
Actinides, radioactive, unspecified	Water	Bq	1,83E+00	1,83E+00	6,72E-01	6,72E-01	5,80E-01	5,80E-01
Aluminium	Water	kg	5,77E-04	9,53E-02	3,85E-04	5,57E-02	2,14E-04	6,85E-02
Americium-241	Water	Bq	x	x	2,33E-04	2,33E-04	x	x
Ammonia	Water	kg	x	x	3,48E-05	3,48E-05	x	x
Ammonium, ion	Water	kg	1,61E-03	1,62E-03	1,47E-03	1,47E-03	5,25E-04	5,30E-04
Aniline	Water	kg	4,57E-07	4,57E-07	2,89E-07	2,89E-07	2,26E-10	2,26E-10
Anthracene	Water	kg	x	x	3,01E-11	3,01E-11	x	x
Antimony	Water	kg	7,31E-04	2,12E-03	7,24E-04	2,08E-03	5,43E-05	1,83E-04
Antimony-122	Water	Bq	9,87E-04	9,87E-04	7,25E-04	7,25E-04	4,34E-04	4,34E-04
Antimony-124	Water	Bq	3,26E-01	3,26E-01	1,34E-01	1,34E-01	1,06E-01	1,06E-01
Antimony-125	Water	Bq	3,20E-01	3,20E-01	1,32E-01	1,32E-01	1,01E-01	1,01E-01
AOX, Adsorbable Organic Halogen as Cl	Water	kg	2,10E-06	2,10E-06	7,25E-06	7,25E-06	1,28E-06	1,28E-06
Arsenic, ion	Water	kg	1,22E-04	3,63E-04	9,86E-05	2,10E-04	3,05E-05	1,60E-04
Barite	Water	kg	2,16E-03	2,16E-03	1,53E-03	1,53E-03	8,77E-04	8,77E-04
Barium	Water	kg	2,18E-04	2,35E-03	1,70E-04	1,23E-03	1,18E-04	7,05E-04
Barium-140	Water	Bq	4,32E-03	4,32E-03	3,18E-03	3,18E-03	1,90E-03	1,90E-03

Benzene	Water	kg	3,51E-04	3,51E-04	3,59E-04	3,59E-04	7,55E-04	7,55E-04
Benzene, 1,2-dichloro-	Water	kg	1,33E-06	1,33E-06	1,07E-06	1,07E-06	1,34E-08	1,34E-08
Benzene, chloro-	Water	kg	1,76E-05	1,78E-05	1,41E-05	1,43E-05	2,73E-07	2,74E-07
Benzene, ethyl-	Water	kg	5,77E-06	5,77E-06	4,50E-06	4,50E-06	2,35E-06	2,35E-06
Benzo(a)anthracene	Water	kg	x	x	2,45E-11	2,45E-11	x	x
Benzo(b)fluoranthene	Water	kg	x	x	2,72E-11	2,72E-11	x	x
Benzyl alcohol	Water	kg	x	x	x	x	x	x
Beryllium	Water	kg	1,54E-07	6,52E-05	6,26E-08	2,72E-05	7,54E-08	2,80E-05
BOD5, Biological Oxygen Demand	Water	kg	1,12E+00	1,25E+00	9,33E-01	1,07E+00	7,18E-02	1,20E-01
Borate	Water	kg	9,58E-06	9,58E-06	5,93E-06	5,93E-06	4,52E-09	4,52E-09
Boron	Water	kg	2,57E-04	3,30E-03	1,29E-04	1,56E-03	2,30E-04	2,52E-03
Bromate	Water	kg	4,22E-05	4,22E-05	6,64E-05	6,64E-05	8,16E-05	8,16E-05
Bromide	Water	kg	5,57E-04	5,57E-04	3,68E-04	3,68E-04	2,38E-07	2,38E-07
Bromine	Water	kg	9,98E-04	1,17E-03	5,92E-03	6,09E-03	1,67E-04	1,84E-04
Butene	Water	kg	3,89E-07	3,89E-07	1,07E-05	1,07E-05	2,35E-05	2,35E-05
Butyl acetate	Water	kg	1,01E-07	1,01E-07	9,90E-08	9,90E-08	3,94E-08	3,94E-08
Butyrolactone	Water	kg	1,61E-10	1,61E-10	1,59E-10	1,59E-10	6,70E-11	6,70E-11
Cadmium	Water	kg	x	x	3,22E-08	3,22E-08	x	x
Cadmium, ion	Water	kg	2,32E-05	1,07E-04	2,25E-05	6,30E-05	1,93E-06	6,15E-05
Calcium, ion	Water	kg	9,24E-01	1,95E+00	8,96E-01	1,42E+00	2,23E-02	4,63E-01
Carbon-14	Water	Bq	x	x	1,18E-02	1,18E-02	x	x
Carbon disulfide	Water	kg	2,31E-06	2,31E-06	9,73E-08	9,73E-08	4,93E-09	4,93E-09
Carbonate	Water	kg	3,03E-04	3,03E-04	1,79E-04	1,79E-04	1,22E-04	1,22E-04
Carboxylic acids, unspecified	Water	kg	1,05E-03	1,05E-03	8,11E-04	8,11E-04	4,24E-04	4,24E-04
Cerium-141	Water	Bq	1,73E-03	1,73E-03	1,27E-03	1,27E-03	7,61E-04	7,61E-04
Cerium-144	Water	Bq	5,26E-04	5,26E-04	3,87E-04	3,87E-04	2,32E-04	2,32E-04

Cesium	Water	kg	2,40E-07	2,40E-07	1,87E-07	1,87E-07	9,74E-08	9,74E-08
Cesium-134	Water	Bq	2,83E-01	2,83E-01	1,17E-01	1,17E-01	8,48E-02	8,48E-02
Cesium-136	Water	Bq	3,07E-04	3,07E-04	2,25E-04	2,25E-04	1,35E-04	1,35E-04
Cesium-137	Water	Bq	2,11E+02	2,11E+02	7,77E+01	7,77E+01	6,69E+01	6,69E+01
Chloramine	Water	kg	1,63E-06	1,63E-06	1,01E-06	1,01E-06	7,79E-10	7,79E-10
Chlorate	Water	kg	3,27E-04	3,27E-04	5,13E-04	5,13E-04	6,25E-04	6,25E-04
Chloride	Water	kg	4,77E-01	7,54E-01	4,25E-01	6,16E-01	6,65E-01	6,94E-01
Chlorinated solvents, unspecified	Water	kg	1,08E-06	1,08E-06	1,36E-06	1,36E-06	9,23E-07	9,23E-07
Chlorine	Water	kg	9,10E-06	9,10E-06	1,01E-05	1,01E-05	2,25E-06	2,25E-06
Chloroacetic acid	Water	kg	2,62E-05	2,62E-05	7,92E-06	7,92E-06	1,67E-07	1,67E-07
Chloroacetyl chloride	Water	kg	6,33E-08	6,33E-08	6,14E-08	6,14E-08	3,63E-12	3,63E-12
Chloroform	Water	kg	7,57E-08	7,57E-08	5,53E-08	5,53E-08	6,39E-10	6,39E-10
Chlorosulfonic acid	Water	kg	1,44E-07	1,44E-07	1,39E-07	1,39E-07	2,92E-11	2,92E-11
Chromium	Water	kg	x	x	1,02E-08	1,02E-08	x	x
Chromium-51	Water	Bq	4,78E-01	4,78E-01	2,90E-01	2,90E-01	1,84E-01	1,84E-01
Chromium VI	Water	kg	7,09E-05	5,01E-04	5,43E-05	2,98E-04	3,70E-05	2,38E-04
Chromium, ion	Water	kg	2,72E-05	2,72E-05	2,37E-05	2,37E-05	1,20E-06	1,20E-06
Chrysene	Water	kg	x	x	1,38E-10	1,38E-10	x	x
Cobalt	Water	kg	8,69E-06	1,25E-03	4,03E-05	7,51E-04	5,02E-06	4,28E-04
Cobalt-57	Water	Bq	9,74E-03	9,74E-03	7,16E-03	7,16E-03	4,29E-03	4,29E-03
Cobalt-58	Water	Bq	3,08E+00	3,08E+00	1,60E+00	1,60E+00	1,10E+00	1,10E+00
Cobalt-60	Water	Bq	2,47E+00	2,47E+00	1,38E+00	1,38E+00	9,02E-01	9,02E-01
COD, Chemical Oxygen Demand	Water	kg	1,26E+00	1,66E+00	1,06E+00	1,46E+00	7,53E-02	2,21E-01
Copper	Water	kg	x	x	1,47E-07	1,47E-07	x	x
Copper, ion	Water	kg	2,87E-05	1,35E-03	5,97E-05	8,17E-04	8,96E-06	8,92E-04
Cresol	Water	kg	x	x	7,10E-13	7,10E-13	x	x

Cumene	Water	kg	4,57E-04	4,57E-04	4,59E-04	4,59E-04	1,04E-03	1,04E-03
Curium alpha	Water	Bq	x	x	3,09E-04	3,09E-04	x	x
Cyanide	Water	kg	1,91E-05	1,91E-05	1,25E-05	1,25E-05	2,13E-05	2,13E-05
Decane	Water	kg	x	x	2,47E-07	2,47E-07	x	x
Dichromate	Water	kg	3,77E-06	3,77E-06	5,48E-07	5,48E-07	3,27E-07	3,27E-07
Diethylamine	Water	kg	2,13E-07	2,13E-07	1,38E-07	1,38E-07	1,01E-10	1,01E-10
Dimethylamine	Water	kg	8,62E-07	8,62E-07	8,09E-07	8,09E-07	1,16E-10	1,16E-10
Dioxin, 2,3,7,8 Tetrachlorodibenzo-p-	Water	kg	x	x	8,30E-23	8,30E-23	x	x
Dipropylamine	Water	kg	1,09E-07	1,09E-07	6,17E-08	6,17E-08	6,33E-11	6,33E-11
DOC, Dissolved Organic Carbon	Water	kg	1,81E-02	1,77E-01	2,46E-02	1,81E-01	2,13E-02	7,92E-02
Ethane, 1,2-dichloro-	Water	kg	1,60E-05	1,60E-05	1,40E-05	1,40E-05	1,26E-07	1,26E-07
Ethanol	Water	kg	6,95E-05	6,95E-05	7,60E-05	7,60E-05	8,75E-07	8,75E-07
Ethene	Water	kg	2,46E-04	2,46E-04	2,40E-04	2,40E-04	2,37E-05	2,37E-05
Ethene, chloro-	Water	kg	3,35E-08	3,35E-08	1,93E-08	1,93E-08	8,26E-09	8,26E-09
Ethyl acetate	Water	kg	1,82E-07	1,82E-07	1,27E-06	1,27E-06	1,29E-07	1,29E-07
Ethylamine	Water	kg	8,35E-07	8,35E-07	7,80E-07	7,80E-07	1,09E-09	1,09E-09
Ethylene diamine	Water	kg	9,12E-07	9,12E-07	3,84E-08	3,84E-08	2,01E-09	2,01E-09
Ethylene oxide	Water	kg	1,83E-07	1,83E-07	1,09E-07	1,09E-07	7,62E-08	7,62E-08
Fluoranthene	Water	kg	x	x	2,89E-11	2,89E-11	x	x
Fluoride	Water	kg	1,12E-02	3,24E-02	1,10E-02	2,87E-02	1,36E-03	2,51E-02
Fluorine	Water	kg	x	x	7,31E-10	7,31E-10	x	x
Fluosilicic acid	Water	kg	6,33E-06	6,33E-06	6,17E-06	6,17E-06	1,61E-05	1,61E-05
Formaldehyde	Water	kg	3,55E-05	3,55E-05	6,26E-05	6,26E-05	6,82E-05	6,82E-05
Formamide	Water	kg	1,66E-07	1,66E-07	7,98E-08	7,98E-08	1,07E-10	1,07E-10
Formate	Water	kg	4,54E-05	4,54E-05	4,44E-05	4,44E-05	5,05E-08	5,05E-08
Formic acid	Water	kg	4,83E-08	4,83E-08	2,32E-08	2,32E-08	3,09E-11	3,09E-11

Glutaraldehyde	Water	kg	2,67E-07	2,67E-07	1,89E-07	1,89E-07	1,08E-07	1,08E-07
Heat, waste	Water	MJ	1,28E+02	1,28E+02	1,03E+02	1,03E+02	3,84E+01	3,85E+01
Hexane	Water	kg	x	x	7,80E-14	7,80E-14	x	x
Hydrocarbons, aliphatic, alkanes, unspecified	Water	kg	3,13E-05	3,13E-05	2,43E-05	2,43E-05	1,27E-05	1,27E-05
Hydrocarbons, aliphatic, unsaturated	Water	kg	3,04E-06	3,04E-06	2,38E-06	2,38E-06	1,17E-06	1,17E-06
Hydrocarbons, aromatic	Water	kg	1,31E-04	1,31E-04	1,01E-04	1,01E-04	5,28E-05	5,28E-05
Hydrocarbons, unspecified	Water	kg	2,69E-04	2,69E-04	2,22E-04	2,22E-04	5,68E-05	5,68E-05
Hydrogen-3, Tritium	Water	Bq	4,84E+05	4,84E+05	1,78E+05	1,78E+05	1,53E+05	1,53E+05
Hydrogen chloride	Water	kg	x	x	4,59E-10	4,59E-10	x	x
Hydrogen fluoride	Water	kg	x	x	1,58E-11	1,58E-11	x	x
Hydrogen peroxide	Water	kg	5,86E-07	5,86E-07	3,69E-07	3,69E-07	1,43E-07	1,43E-07
Hydrogen sulfide	Water	kg	2,38E-06	1,78E-04	2,12E-06	1,67E-04	3,06E-06	3,44E-05
Hydroxide	Water	kg	1,06E-06	1,06E-06	9,53E-07	9,53E-07	3,53E-07	3,53E-07
Hypochlorite	Water	kg	2,30E-05	2,30E-05	7,39E-06	7,39E-06	7,61E-06	7,61E-06
Iodide	Water	kg	9,38E-05	9,38E-05	2,60E-04	2,60E-04	1,06E-05	1,06E-05
Iodine-129	Water	Bq	x	x	3,37E-02	3,37E-02	x	x
Iodine-131	Water	Bq	6,17E-02	6,17E-02	2,67E-02	2,67E-02	2,02E-02	2,02E-02
Iodine-133	Water	Bq	2,71E-03	2,71E-03	1,99E-03	1,99E-03	1,19E-03	1,19E-03
Iron	Water	kg	x	x	2,83E-05	2,83E-05	x	x
Iron-59	Water	Bq	7,46E-04	7,46E-04	5,48E-04	5,48E-04	3,28E-04	3,28E-04
Iron, ion	Water	kg	2,14E-02	1,22E-01	7,10E-03	4,72E-02	7,33E-03	5,61E-02
Isopropylamine	Water	kg	2,77E-07	2,77E-07	2,72E-07	2,72E-07	3,26E-10	3,26E-10
Lactic acid	Water	kg	8,54E-08	8,54E-08	4,83E-08	4,83E-08	4,96E-11	4,96E-11
Lanthanum-140	Water	Bq	4,61E-03	4,61E-03	3,38E-03	3,38E-03	2,03E-03	2,03E-03
Lead	Water	kg	3,24E-05	2,61E-04	2,55E-05	1,81E-04	2,26E-05	2,14E-04
Lead-210	Water	Bq	2,34E+03	2,34E+03	2,28E+03	2,28E+03	1,11E+00	1,11E+00

Lithium, ion	Water	kg	2,55E-05	2,55E-05	2,34E-05	2,34E-05	1,20E-04	1,20E-04
m-Xylene	Water	kg	1,58E-07	1,58E-07	6,52E-08	6,52E-08	3,51E-09	3,51E-09
Magnesium	Water	kg	7,44E-03	4,14E-01	3,94E-03	1,59E-01	2,38E-03	1,76E-01
Manganese	Water	kg	3,66E-04	3,77E-02	2,02E-04	1,68E-02	9,48E-05	1,58E-02
Manganese-54	Water	Bq	1,91E-01	1,91E-01	1,06E-01	1,06E-01	6,78E-02	6,78E-02
Mercury	Water	kg	2,99E-06	1,29E-05	2,86E-06	6,52E-06	1,93E-07	3,92E-06
Methane, dibromo-	Water	kg	x	x	1,34E-14	1,34E-14	x	x
Methane, dichloro-, HCC-30	Water	kg	4,14E-06	4,14E-06	3,21E-06	3,21E-06	1,82E-06	1,82E-06
Methane, monochloro-, R-40	Water	kg	x	x	1,44E-09	1,44E-09	x	x
Methanol	Water	kg	1,98E-05	1,98E-05	1,85E-04	1,85E-04	2,18E-05	2,18E-05
Methyl acetate	Water	kg	2,64E-08	2,64E-08	2,58E-08	2,58E-08	9,31E-13	9,31E-13
Methyl acrylate	Water	kg	2,46E-07	2,46E-07	2,44E-07	2,44E-07	1,03E-07	1,03E-07
Methyl amine	Water	kg	5,66E-08	5,66E-08	5,48E-08	5,48E-08	3,40E-11	3,40E-11
Methyl formate	Water	kg	7,33E-09	7,33E-09	3,53E-09	3,53E-09	1,28E-11	1,28E-11
Molybdenum	Water	kg	4,54E-05	2,53E-04	1,81E-05	1,05E-04	1,68E-05	1,22E-04
Molybdenum-99	Water	Bq	1,59E-03	1,59E-03	1,17E-03	1,17E-03	6,99E-04	6,99E-04
Naphthalene	Water	kg	x	x	3,46E-09	3,46E-09	x	x
Nickel	Water	kg	x	x	9,87E-08	9,87E-08	x	x
Nickel, ion	Water	kg	7,06E-05	3,45E-03	6,51E-05	1,38E-03	6,32E-06	1,30E-03
Niobium-95	Water	Bq	3,21E-02	3,21E-02	1,36E-02	1,36E-02	9,41E-03	9,41E-03
Nitrate	Water	kg	2,09E-01	2,46E-01	1,13E-01	1,28E-01	1,52E-03	1,45E-02
Nitrite	Water	kg	1,18E-05	1,22E-05	7,88E-06	8,30E-06	8,15E-06	8,43E-06
Nitrobenzene	Water	kg	1,14E-06	1,14E-06	7,66E-07	7,66E-07	5,08E-10	5,08E-10
Nitrogen	Water	kg	8,01E-04	8,01E-04	5,34E-04	5,34E-04	2,39E-04	2,39E-04
Nitrogen, organic bound	Water	kg	1,30E-04	1,44E-04	9,05E-05	1,03E-04	2,25E-04	2,34E-04
o-Xylene	Water	kg	4,58E-10	4,58E-10	4,49E-10	4,49E-10	2,47E-09	2,47E-09
Oils, unspecified	Water	kg	1,58E-02	1,58E-02	1,21E-02	1,21E-02	6,25E-03	6,25E-03

PAH, polycyclic aromatic hydrocarbons	Water	kg	1,50E-06	1,50E-06	1,18E-06	1,18E-06	6,34E-07	6,34E-07
Particulates, < 10 um	Water	kg	x	x	2,77E-11	2,77E-11	x	x
Particulates, > 10 um	Water	kg	x	x	2,68E-04	2,68E-04	x	x
Phenol	Water	kg	3,54E-05	3,54E-05	3,30E-05	3,30E-05	1,11E-04	1,11E-04
Phosphate	Water	kg	5,99E-02	1,71E-01	4,78E-02	8,93E-02	8,64E-03	5,17E-02
Phosphorus	Water	kg	2,82E-03	2,82E-03	2,30E-03	2,30E-03	1,76E-05	1,76E-05
Plutonium-alpha	Water	Bq	x	x	9,28E-04	9,28E-04	x	x
Polonium-210	Water	Bq	3,56E+03	3,56E+03	3,48E+03	3,48E+03	1,35E+00	1,35E+00
Potassium	Water	kg	x	x	2,90E-08	2,90E-08	x	x
Potassium-40	Water	Bq	2,85E+02	2,85E+02	2,76E+02	2,76E+02	7,65E-01	7,65E-01
Potassium, ion	Water	kg	6,99E-03	2,50E-01	4,85E-03	1,04E-01	1,97E-03	1,03E-01
Propanal	Water	kg	1,32E-07	1,32E-07	6,32E-08	6,32E-08	8,43E-11	8,43E-11
Propane, 1,2-dichloro-	Water	kg	x	x	3,03E-17	3,03E-17	x	x
Propene	Water	kg	3,78E-04	3,78E-04	4,12E-04	4,12E-04	1,24E-03	1,24E-03
Propionic acid	Water	kg	2,97E-07	2,97E-07	2,90E-07	2,90E-07	1,22E-11	1,22E-11
Propylamine	Water	kg	5,27E-08	5,27E-08	2,53E-08	2,53E-08	3,37E-11	3,37E-11
Propylene oxide	Water	kg	1,01E-06	1,01E-06	8,59E-07	8,59E-07	9,86E-04	9,86E-04
Protactinium-234	Water	Bq	2,87E+00	2,87E+00	1,08E+00	1,08E+00	9,09E-01	9,09E-01
Radioactive species, alpha emitters	Water	Bq	2,66E+00	2,66E+00	2,58E+00	2,58E+00	1,57E-03	1,57E-03
Radioactive species, Nuclides, unspecified	Water	Bq	1,10E+03	1,10E+03	4,03E+02	4,03E+02	3,48E+02	3,48E+02
Radium-224	Water	Bq	1,20E+01	1,20E+01	9,36E+00	9,36E+00	4,87E+00	4,87E+00
Radium-226	Water	Bq	4,44E+03	4,44E+03	3,26E+03	3,26E+03	5,74E+02	5,74E+02
Radium-228	Water	Bq	2,41E+01	2,41E+01	1,88E+01	1,88E+01	9,95E+00	9,95E+00
Rubidium	Water	kg	2,40E-06	2,40E-06	1,87E-06	1,87E-06	9,74E-07	9,74E-07
Ruthenium-103	Water	Bq	3,35E-04	3,35E-04	2,46E-04	2,46E-04	1,47E-04	1,47E-04
Ruthenium-106	Water	Bq	x	x	2,33E-04	2,33E-04	x	x

Scandium	Water	kg	2,69E-06	1,02E-04	9,63E-07	3,89E-05	9,99E-07	4,70E-05
Selenium	Water	kg	1,51E-05	1,80E-04	1,11E-05	8,62E-05	3,25E-06	8,05E-05
Silicon	Water	kg	2,53E-03	6,62E-01	1,24E-03	3,71E-01	1,01E-03	2,89E-01
Silver-110	Water	Bq	2,26E+00	2,26E+00	1,24E+00	1,24E+00	8,47E-01	8,47E-01
Silver, ion	Water	kg	3,42E-07	4,90E-06	2,39E-07	2,38E-06	3,53E-07	3,72E-06
Sodium-24	Water	Bq	1,20E-02	1,20E-02	8,83E-03	8,83E-03	5,29E-03	5,29E-03
Sodium formate	Water	kg	2,68E-06	2,68E-06	6,90E-08	6,90E-08	9,23E-08	9,23E-08
Sodium, ion	Water	kg	1,79E-01	6,39E-01	1,46E-01	3,68E-01	2,27E-01	4,51E-01
Soil loss by erosion into water	Water	kg	2,09E+01	2,09E+01	2,02E+01	2,02E+01	x	x
Solids, inorganic	Water	kg	4,88E-02	4,88E-02	2,17E-02	2,17E-02	2,29E-02	2,29E-02
Solved solids	Water	kg	6,49E-03	6,49E-03	5,30E-03	5,30E-03	6,45E-03	6,45E-03
Strontium	Water	kg	5,71E-04	1,42E-02	3,90E-04	5,80E-03	2,37E-04	5,21E-03
Strontium-89	Water	Bq	4,78E-02	4,78E-02	2,72E-02	2,72E-02	1,73E-02	1,73E-02
Strontium-90	Water	Bq	1,27E+03	1,27E+03	3,70E+02	3,70E+02	3,67E+02	3,67E+02
Sulfate	Water	kg	2,03E+00	5,17E+00	1,89E+00	3,12E+00	1,30E-01	1,35E+00
Sulfide	Water	kg	2,70E-05	2,70E-05	2,59E-05	2,59E-05	9,97E-07	9,97E-07
Sulfite	Water	kg	6,26E-05	6,26E-05	1,98E-05	1,98E-05	2,02E-05	2,02E-05
Sulfur	Water	kg	1,55E-03	1,55E-03	1,28E-03	1,28E-03	1,88E-05	1,88E-05
Suspended solids, unspecified	Water	kg	1,37E-02	1,37E-02	9,74E-03	9,74E-03	4,37E-03	4,37E-03
Suspended substances, unspecified	Water	kg	x	x	x	x	x	x
t-Butyl methyl ether	Water	kg	5,79E-07	5,79E-07	4,63E-07	4,63E-07	2,05E-07	2,05E-07
t-Butylamine	Water	kg	3,54E-07	3,54E-07	3,46E-07	3,46E-07	3,93E-10	3,93E-10
Technetium-99m	Water	Bq	3,66E-02	3,66E-02	2,68E-02	2,68E-02	1,61E-02	1,61E-02
Tellurium-123m	Water	Bq	3,56E-02	3,56E-02	1,34E-02	1,34E-02	1,09E-02	1,09E-02
Tellurium-132	Water	Bq	9,19E-05	9,19E-05	6,76E-05	6,76E-05	4,05E-05	4,05E-05
Thallium	Water	kg	1,36E-07	1,23E-05	4,76E-08	6,91E-06	4,95E-08	6,16E-06

Thorium-228	Water	Bq	7,67E+01	7,67E+01	6,54E+01	6,54E+01	1,95E+01	1,95E+01
Thorium-230	Water	Bq	3,92E+02	3,92E+02	1,48E+02	1,48E+02	1,24E+02	1,24E+02
Thorium-232	Water	Bq	5,66E-01	5,66E-01	1,39E-01	1,39E-01	1,31E-01	1,31E-01
Thorium-234	Water	Bq	2,88E+00	2,88E+00	1,08E+00	1,08E+00	9,09E-01	9,09E-01
Tin	Water	kg	x	x	1,24E-12	1,24E-12	x	x
Tin, ion	Water	kg	7,88E-06	9,54E-05	7,70E-06	6,14E-05	9,46E-07	6,58E-05
Titanium	Water	kg	x	x	1,82E-09	1,82E-09	x	x
Titanium, ion	Water	kg	1,39E-05	5,71E-02	1,18E-05	5,43E-02	9,60E-06	6,02E-03
TOC, Total Organic Carbon	Water	kg	1,84E-02	1,77E-01	2,48E-02	1,81E-01	2,14E-02	7,93E-02
Toluene	Water	kg	3,18E-05	3,18E-05	2,49E-05	2,49E-05	1,23E-05	1,23E-05
Toluene, 2-chloro-	Water	kg	2,13E-07	2,13E-07	1,54E-07	1,54E-07	8,10E-11	8,10E-11
Tributyltin compounds	Water	kg	1,99E-06	1,99E-06	1,64E-06	1,64E-06	2,97E-07	2,97E-07
Triethylene glycol	Water	kg	3,57E-06	3,57E-06	2,68E-06	2,68E-06	1,58E-06	1,58E-06
Trimethylamine	Water	kg	5,56E-08	5,56E-08	5,44E-08	5,44E-08	1,65E-12	1,65E-12
Tungsten	Water	kg	4,50E-06	9,40E-05	1,71E-06	4,54E-05	2,18E-06	7,52E-05
Uranium-234	Water	Bq	3,45E+00	3,45E+00	1,30E+00	1,30E+00	1,09E+00	1,09E+00
Uranium-235	Water	Bq	5,69E+00	5,69E+00	2,14E+00	2,14E+00	1,80E+00	1,80E+00
Uranium-238	Water	Bq	1,21E+03	1,21E+03	1,17E+03	1,17E+03	3,28E+00	3,28E+00
Uranium alpha	Water	Bq	1,66E+02	1,66E+02	6,24E+01	6,24E+01	5,24E+01	5,24E+01
Urea	Water	kg	1,81E-07	1,81E-07	1,01E-07	1,01E-07	9,78E-11	9,78E-11
Vanadium	Water	kg	x	x	3,92E-09	3,92E-09	x	x
Vanadium, ion	Water	kg	1,89E-05	3,57E-03	1,43E-05	3,23E-03	3,59E-06	5,57E-04
VOC, volatile organic compounds, unspecified origin	Water	kg	9,13E-05	9,13E-05	6,82E-05	6,82E-05	3,64E-05	3,64E-05
Water	Water	kg	1,15E+02	1,15E+02	1,13E+02	1,13E+02	x	x
Xylene	Water	kg	2,46E-05	2,46E-05	1,92E-05	1,92E-05	1,00E-05	1,00E-05
Zinc	Water	kg	x	x	4,20E-08	4,20E-08	x	x

Zinc-65	Water	Bq	1,63E-01	1,63E-01	1,20E-01	1,20E-01	7,17E-02	7,17E-02
Zinc, ion	Water	kg	2,51E-04	7,04E-03	1,90E-04	3,28E-03	8,73E-05	4,14E-03
Zirconium-95	Water	Bq	1,89E-03	1,89E-03	1,39E-03	1,39E-03	8,30E-04	8,30E-04
Calcium fluoride waste	Afval	kg	x	x	4,13E-08	4,13E-08	x	x
Construction waste	Afval	kg	x	x	3,03E-04	3,03E-04	x	x
Mineral waste, from mining	Afval	kg	x	x	2,42E-01	2,42E-01	x	x
Radioactive tailings	Afval	kg	x	x	7,24E-05	7,24E-05	x	x
Rejects	Afval	kg	x	x	1,98E-04	1,98E-04	x	x
Slag (uranium conversion)	Afval	kg	x	x	2,74E-07	2,74E-07	x	x
Slags	Afval	kg	x	x	1,28E-05	1,28E-05	x	x
Waste returned to mine	Afval	kg	x	x	2,15E-05	2,15E-05	x	x
Waste, nuclear, unspecified/kg	Afval	kg	x	x	7,31E-07	7,31E-07	x	x
2,4-D	Soil	kg	1,05E-04	1,05E-04	1,03E-04	1,03E-04	2,92E-09	2,92E-09
Acetamide	Soil	kg	x	x	x	x	x	x
Acetochlor	Soil	kg	x	x	x	x	x	x
Aclonifen	Soil	kg	1,32E-06	1,32E-06	1,02E-07	1,02E-07	1,44E-08	1,44E-08
Alachlor	Soil	kg	x	x	x	x	x	x
Aldrin	Soil	kg	1,62E-03	1,62E-03	1,59E-03	1,59E-03	1,19E-10	1,19E-10
Aluminium	Soil	kg	1,56E-03	1,56E-03	1,47E-03	1,47E-03	1,51E-04	1,51E-04
Ammonia	Soil	kg	x	x	3,53E-06	3,53E-06	x	x
Antimony	Soil	kg	4,28E-11	4,28E-11	3,91E-11	3,91E-11	2,17E-07	2,17E-07
Arsenic	Soil	kg	1,16E-04	1,16E-04	1,13E-04	1,13E-04	1,48E-07	1,48E-07
Atrazine	Soil	kg	4,24E-04	4,24E-04	4,16E-04	4,16E-04	3,13E-11	3,13E-11
Barium	Soil	kg	7,52E-05	7,52E-05	5,87E-05	5,87E-05	4,01E-05	4,01E-05
Benomyl	Soil	kg	1,71E-09	1,71E-09	1,59E-09	1,59E-09	1,86E-11	1,86E-11
Bentazone	Soil	kg	6,72E-07	6,72E-07	5,19E-08	5,19E-08	7,36E-09	7,36E-09

Bifenthrin	Soil	kg	x	x	x	x	x	x
Boron	Soil	kg	1,94E-05	1,94E-05	4,69E-06	4,69E-06	3,29E-06	3,29E-06
Bromide	Soil	kg	x	x	1,04E-09	1,04E-09	x	x
Bromoxynil	Soil	kg	x	x	x	x	x	x
Cadmium	Soil	kg	2,86E-06	2,86E-06	2,50E-06	2,50E-06	8,95E-08	8,95E-08
Calcium	Soil	kg	1,98E-02	1,98E-02	1,89E-02	1,89E-02	1,29E-03	1,29E-03
Carbetamide	Soil	kg	7,64E-07	7,64E-07	1,93E-08	1,93E-08	3,25E-09	3,25E-09
Carbofuran	Soil	kg	9,39E-07	9,39E-07	8,69E-07	8,69E-07	1,02E-08	1,02E-08
Carbon	Soil	kg	2,07E-03	2,07E-03	1,21E-03	1,21E-03	3,63E-04	3,63E-04
Chloride	Soil	kg	1,27E-02	1,27E-02	1,23E-02	1,23E-02	2,30E-03	2,30E-03
Chlorimuron-ethyl	Soil	kg	x	x	x	x	x	x
Chlorothalonil	Soil	kg	5,18E-04	5,18E-04	8,62E-07	8,62E-07	6,36E-07	6,36E-07
Chlorotoluron	Soil	kg	x	x	x	x	x	x
Chlorpyrifos	Soil	kg	x	x	x	x	x	x
Chromium	Soil	kg	1,07E-04	1,07E-04	8,87E-05	8,87E-05	1,44E-06	1,44E-06
Chromium VI	Soil	kg	1,01E-04	1,01E-04	1,99E-05	1,99E-05	1,24E-05	1,24E-05
Chromium, ion	Soil	kg	x	x	3,60E-14	3,60E-14	x	x
Clethodim	Soil	kg	x	x	x	x	x	x
Cloransulam-methyl	Soil	kg	x	x	x	x	x	x
Cobalt	Soil	kg	1,22E-06	1,22E-06	1,17E-06	1,17E-06	6,59E-08	6,59E-08
Copper	Soil	kg	6,72E-05	6,72E-05	8,95E-06	8,95E-06	9,18E-06	9,18E-06
Cyfluthrin	Soil	kg	x	x	x	x	x	x
Cypermethrin	Soil	kg	1,65E-07	1,65E-07	1,23E-07	1,23E-07	1,53E-09	1,53E-09
Cyproconazole	Soil	kg	x	x	x	x	x	x
Cyprodinil	Soil	kg	x	x	x	x	x	x
Decane	Soil	kg	x	x	1,29E-08	1,29E-08	x	x

Dicamba	Soil	kg	x	x	x	x	x	x
Diflufenzopyr-sodium	Soil	kg	x	x	x	x	x	x
Dimethenamid	Soil	kg	x	x	x	x	x	x
Ethephon	Soil	kg	x	x	x	x	x	x
Fenoxaprop	Soil	kg	x	x	x	x	x	x
Fenpiclonil	Soil	kg	2,05E-05	2,05E-05	3,74E-08	3,74E-08	2,55E-08	2,55E-08
Fenpropimorph	Soil	kg	x	x	x	x	x	x
Fipronil	Soil	kg	x	x	x	x	x	x
Fluazifop-P-butyl	Soil	kg	x	x	x	x	x	x
Flumetsulam	Soil	kg	x	x	x	x	x	x
Flumioxazin	Soil	kg	x	x	x	x	x	x
Fluoride	Soil	kg	7,60E-05	7,60E-05	1,93E-05	1,93E-05	1,20E-05	1,20E-05
Fomesafen	Soil	kg	x	x	x	x	x	x
Foramsulfuron	Soil	kg	x	x	x	x	x	x
Glufosinate	Soil	kg	x	x	x	x	x	x
Glyphosate	Soil	kg	1,53E-04	1,53E-04	1,50E-04	1,50E-04	4,74E-07	4,74E-07
Heat, waste	Soil	MJ	2,25E+01	2,25E+01	2,91E+00	2,91E+00	8,60E-01	8,60E-01
Imazamox	Soil	kg	x	x	x	x	x	x
Imazapyr	Soil	kg	x	x	x	x	x	x
Imazethapyr	Soil	kg	x	x	x	x	x	x
Iron	Soil	kg	2,89E-03	2,89E-03	2,77E-03	2,77E-03	1,09E-03	1,09E-03
Isoproturon	Soil	kg	x	x	x	x	x	x
Isoxaflutole	Soil	kg	x	x	x	x	x	x
Lambda-cyhalothrin	Soil	kg	x	x	x	x	x	x
Lead	Soil	kg	-7,97E-06	-7,97E-06	-7,21E-06	-7,21E-06	9,73E-07	9,73E-07
Linuron	Soil	kg	3,64E-04	3,64E-04	3,47E-04	3,47E-04	1,11E-07	1,11E-07

Magnesium	Soil	kg	2,29E-03	2,29E-03	2,18E-03	2,18E-03	1,71E-04	1,71E-04
Mancozeb	Soil	kg	6,73E-04	6,73E-04	1,12E-06	1,12E-06	8,26E-07	8,26E-07
Manganese	Soil	kg	1,36E-03	1,36E-03	1,30E-03	1,30E-03	7,18E-05	7,18E-05
Mercury	Soil	kg	3,72E-09	3,72E-09	-1,04E-07	-1,04E-07	1,28E-09	1,28E-09
Mesotrione	Soil	kg	x	x	x	x	x	x
Metaldehyde	Soil	kg	2,77E-07	2,77E-07	3,85E-09	3,85E-09	7,75E-10	7,75E-10
Metolachlor	Soil	kg	7,34E-05	7,34E-05	5,68E-06	5,68E-06	8,04E-07	8,04E-07
Metribuzin	Soil	kg	2,37E-05	2,37E-05	3,94E-08	3,94E-08	2,91E-08	2,91E-08
Molybdenum	Soil	kg	2,51E-07	2,51E-07	2,42E-07	2,42E-07	1,51E-08	1,51E-08
Napropamide	Soil	kg	4,89E-07	4,89E-07	6,81E-09	6,81E-09	1,37E-09	1,37E-09
Nickel	Soil	kg	6,85E-06	6,85E-06	4,41E-06	4,41E-06	5,22E-07	5,22E-07
Nicosulfuron	Soil	kg	x	x	x	x	x	x
Oils, biogenic	Soil	kg	6,72E-04	6,72E-04	6,51E-04	6,51E-04	8,19E-05	8,19E-05
Oils, unspecified	Soil	kg	2,79E-02	2,79E-02	2,24E-02	2,24E-02	6,38E-03	6,38E-03
Orbencarb	Soil	kg	1,28E-04	1,28E-04	2,13E-07	2,13E-07	1,57E-07	1,57E-07
Paraquat	Soil	kg	x	x	x	x	x	x
Parathion	Soil	kg	9,88E-04	9,88E-04	8,04E-04	8,04E-04	x	x
Pendimethalin	Soil	kg	x	x	x	x	x	x
Permethrin	Soil	kg	x	x	x	x	x	x
Phosphate	Soil	kg	x	x	2,02E-06	2,02E-06	x	x
Phosphorus	Soil	kg	6,69E-04	6,69E-04	6,42E-04	6,42E-04	3,73E-05	3,73E-05
Pirimicarb	Soil	kg	6,35E-08	6,35E-08	4,91E-09	4,91E-09	6,96E-10	6,96E-10
Potassium	Soil	kg	3,73E-03	3,73E-03	3,58E-03	3,58E-03	2,13E-04	2,13E-04
Primisulfuron	Soil	kg	x	x	x	x	x	x
Prochloraz	Soil	kg	x	x	x	x	x	x
Prosulfuron	Soil	kg	x	x	x	x	x	x

Rimsulfuron	Soil	kg	x	x	x	x	x	x
Silicon	Soil	kg	5,60E-03	5,60E-03	5,39E-03	5,39E-03	3,06E-04	3,06E-04
Simazine	Soil	kg	x	x	x	x	x	x
Sodium	Soil	kg	5,84E-03	5,84E-03	5,77E-03	5,77E-03	4,58E-04	4,58E-04
Strontium	Soil	kg	1,51E-06	1,51E-06	3,41E-06	3,41E-06	7,21E-07	7,21E-07
Sulfate	Soil	kg	x	x	1,12E-07	1,12E-07	x	x
Sulfentrazone	Soil	kg	x	x	x	x	x	x
Sulfide	Soil	kg	x	x	6,69E-07	6,69E-07	x	x
Sulfosate	Soil	kg	x	x	x	x	x	x
Sulfur	Soil	kg	7,17E-04	7,17E-04	6,74E-04	6,74E-04	8,24E-05	8,24E-05
Sulfuric acid	Soil	kg	1,44E-11	1,44E-11	1,43E-11	1,43E-11	6,01E-12	6,01E-12
Tebupirimphos	Soil	kg	x	x	x	x	x	x
Tebutam	Soil	kg	1,16E-06	1,16E-06	1,61E-08	1,61E-08	3,25E-09	3,25E-09
Teflubenzuron	Soil	kg	1,58E-06	1,58E-06	2,63E-09	2,63E-09	1,94E-09	1,94E-09
Tefluthrin	Soil	kg	x	x	x	x	x	x
Terbufos	Soil	kg	x	x	x	x	x	x
Thiram	Soil	kg	3,04E-09	3,04E-09	2,81E-09	2,81E-09	3,29E-11	3,29E-11
Tin	Soil	kg	-2,90E-06	-2,90E-06	-2,84E-06	-2,84E-06	4,36E-07	4,36E-07
Titanium	Soil	kg	9,31E-05	9,31E-05	8,96E-05	8,96E-05	4,75E-06	4,75E-06
Trifluralin	Soil	kg	x	x	x	x	x	x
Vanadium	Soil	kg	2,67E-06	2,67E-06	2,56E-06	2,56E-06	1,36E-07	1,36E-07
Zinc	Soil	kg	1,68E-04	1,68E-04	7,29E-05	7,29E-05	1,14E-05	1,14E-05

Table F 4 Life Cycle Inventory (LCI) Data – SCK.

			SCK					
			BioBuild Demonstrator		***BioBuild Optimized***		***Timber***	
Substance	**Compartment**	**Unit**	**Long term emissions**	**Long term emissions**	**Long term emissions**	**Long term emissions**	**Long term emissions**	**Long term emissions**

			excluded	included	excluded	included	excluded	included
Air	Raw	kg	x	x	1,34E+00	1,34E+00	x	x
Aluminium	Raw	kg	4,98E-01	4,98E-01	1,29E-01	1,29E-01	1,29E-01	1,29E-01
Anhydrite	Raw	kg	1,74E-05	1,74E-05	1,95E-06	1,95E-06	8,27E-08	8,27E-08
Baryte	Raw	kg	1,32E-02	1,32E-02	9,21E-03	9,21E-03	7,67E-03	7,67E-03
Basalt	Raw	kg	2,41E-03	2,41E-03	1,83E-03	1,83E-03	3,05E-03	3,05E-03
Biomass, feedstock	Raw	MJ	x	x	1,94E-12	1,94E-12	x	x
Borax	Raw	kg	1,44E-07	1,44E-07	9,86E-08	9,86E-08	1,36E-07	1,36E-07
Bromine	Raw	kg	3,56E-04	3,56E-04	1,28E-04	1,28E-04	2,18E-07	2,18E-07
Cadmium	Raw	kg	3,24E-06	3,24E-06	2,22E-06	2,22E-06	2,79E-06	2,79E-06
Calcite	Raw	kg	9,19E-01	9,19E-01	6,83E-01	6,83E-01	6,14E-01	6,14E-01
Calcium chloride	Raw	kg	x	x	2,94E-15	2,94E-15	x	x
Carbon dioxide, in air	Raw	kg	1,85E+01	1,85E+01	4,77E+01	4,77E+01	4,44E+01	4,44E+01
Carbon, in organic matter, in soil	Raw	kg	3,24E-04	3,24E-04	3,73E-04	3,73E-04	4,36E-06	4,36E-06
Chromium	Raw	kg	6,45E-03	6,45E-03	4,97E-03	4,97E-03	5,53E-03	5,53E-03
Chrysotile	Raw	kg	1,02E-05	1,02E-05	5,96E-06	5,96E-06	7,82E-07	7,82E-07
Cinnabar	Raw	kg	9,78E-07	9,78E-07	5,77E-07	5,77E-07	7,32E-08	7,32E-08
Clay	Raw	kg	3,16E-01	3,16E-01	2,61E-01	2,61E-01	3,30E-01	3,30E-01
Clay, bentonite	Raw	kg	4,79E-03	4,79E-03	3,45E-03	3,45E-03	3,80E-03	3,80E-03
Coal, brown	Raw	kg	3,72E+00	3,72E+00	1,94E+00	1,94E+00	2,03E+00	2,03E+00
Coal, hard	Raw	kg	3,28E+00	3,28E+00	1,67E+00	1,67E+00	6,93E-01	6,93E-01
Cobalt	Raw	kg	1,46E-02	1,46E-02	1,06E-06	1,06E-06	1,47E-08	1,47E-08
Colemanite	Raw	kg	5,43E-05	5,43E-05	3,35E-05	3,35E-05	3,86E-05	3,86E-05
Copper	Raw	kg	x	x	4,74E-09	4,74E-09	x	x
Copper, 0.99% in sulfide, Cu 0.36% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,05E-03	1,05E-03	6,19E-04	6,19E-04	6,06E-04	6,06E-04
Copper, 1.18% in sulfide, Cu 0.39% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	4,67E-03	4,67E-03	3,42E-03	3,42E-03	3,35E-03	3,35E-03

Copper, 1.42% in sulfide, Cu 0.81% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,24E-03	1,24E-03	9,07E-04	9,07E-04	8,88E-04	8,88E-04
Copper, 2.19% in sulfide, Cu 1.83% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	6,17E-03	6,17E-03	4,60E-03	4,60E-03	4,42E-03	4,42E-03
Diatomite	Raw	kg	1,34E-09	1,34E-09	8,53E-10	8,53E-10	8,90E-10	8,90E-10
Dolomite	Raw	kg	9,63E-04	9,63E-04	7,61E-04	7,61E-04	9,24E-04	9,24E-04
Energy, from coal	Raw	MJ	x	x	1,37E-02	1,37E-02	x	x
Energy, from coal, brown	Raw	MJ	x	x	5,47E-03	5,47E-03	x	x
Energy, from gas, natural	Raw	MJ	x	x	5,72E-02	5,72E-02	x	x
Energy, from oil	Raw	MJ	x	x	1,54E-02	1,54E-02	x	x
Energy, from peat	Raw	MJ	x	x	1,37E-05	1,37E-05	x	x
Energy, from uranium	Raw	MJ	x	x	7,22E-03	7,22E-03	x	x
Energy, from wood	Raw	MJ	x	x	2,58E-07	2,58E-07	x	x
Energy, geothermal, converted	Raw	MJ	x	x	1,21E-05	1,21E-05	x	x
Energy, gross calorific value, in biomass	Raw	MJ	1,99E+02	1,99E+02	2,70E+02	2,70E+02	4,87E+02	4,87E+02
Energy, gross calorific value, in biomass, primary forest	Raw	MJ	2,24E-02	2,24E-02	2,59E-02	2,59E-02	3,02E-04	3,02E-04
Energy, kinetic (in wind), converted	Raw	MJ	1,46E+00	1,46E+00	7,65E-01	7,65E-01	1,41E-01	1,41E-01
Energy, potential (in hydropower reservoir), converted	Raw	MJ	1,72E+01	1,72E+01	1,23E+01	1,23E+01	1,29E+01	1,29E+01
Energy, solar, converted	Raw	MJ	2,20E-02	2,20E-02	1,12E-02	1,12E-02	9,59E-03	9,59E-03
Feldspar	Raw	kg	2,52E-07	2,52E-07	2,48E-07	2,48E-07	3,69E-09	3,69E-09
Fluorine, 4.5% in apatite, 1% in crude ore, in ground	Raw	kg	3,78E-04	3,78E-04	1,35E-02	1,35E-02	1,89E-05	1,89E-05
Fluorine, 4.5% in apatite, 3% in crude ore, in ground	Raw	kg	7,85E-02	7,85E-02	3,16E-02	3,16E-02	1,94E-05	1,94E-05
Fluorspar	Raw	kg	1,14E-02	1,14E-02	1,15E-03	1,15E-03	8,89E-04	8,89E-04
Gallium	Raw	kg	6,11E-11	6,11E-11	3,14E-11	3,14E-11	2,59E-11	2,59E-11
Gas, mine, off-gas, process, coal mining/m3	Raw	m3	2,92E-02	2,92E-02	1,64E-02	1,64E-02	1,11E-02	1,11E-02
Gas, natural/m3	Raw	m3	4,83E+00	4,83E+00	3,52E+00	3,52E+00	2,02E+00	2,02E+00
Gold	Raw	kg	3,82E-08	3,82E-08	3,11E-08	3,11E-08	3,26E-08	3,26E-08

Gold, Au 1.1E-4%, Ag 4.2E-3%, in ore, in ground	Raw	kg	1,74E-08	1,74E-08	1,42E-08	1,42E-08	1,48E-08	1,48E-08
Gold, Au 1.3E-4%, Ag 4.6E-5%, in ore, in ground	Raw	kg	3,19E-08	3,19E-08	2,60E-08	2,60E-08	2,72E-08	2,72E-08
Gold, Au 2.1E-4%, Ag 2.1E-4%, in ore, in ground	Raw	kg	5,83E-08	5,83E-08	4,75E-08	4,75E-08	4,98E-08	4,98E-08
Gold, Au 4.3E-4%, in ore, in ground	Raw	kg	1,45E-08	1,45E-08	1,18E-08	1,18E-08	1,23E-08	1,23E-08
Gold, Au 4.9E-5%, in ore, in ground	Raw	kg	3,46E-08	3,46E-08	2,82E-08	2,82E-08	2,96E-08	2,96E-08
Gold, Au 6.7E-4%, in ore, in ground	Raw	kg	5,36E-08	5,36E-08	4,36E-08	4,36E-08	4,58E-08	4,58E-08
Gold, Au 7.1E-4%, in ore, in ground	Raw	kg	6,05E-08	6,05E-08	4,92E-08	4,92E-08	5,16E-08	5,16E-08
Gold, Au 9.7E-4%, Ag 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	3,62E-09	3,62E-09	2,95E-09	2,95E-09	3,09E-09	3,09E-09
Granite	Raw	kg	1,19E-09	1,19E-09	1,69E-11	1,69E-11	1,76E-11	1,76E-11
Gravel	Raw	kg	4,41E+00	4,41E+00	3,10E+00	3,10E+00	1,82E+01	1,82E+01
Gypsum	Raw	kg	1,64E-04	1,64E-04	1,64E-04	1,64E-04	1,63E-04	1,63E-04
Indium	Raw	kg	5,67E-08	5,67E-08	3,82E-08	3,82E-08	4,74E-08	4,74E-08
Iodine	Raw	kg	5,24E-05	5,24E-05	2,44E-05	2,44E-05	5,00E-08	5,00E-08
Iron	Raw	kg	2,65E-01	2,65E-01	2,07E-01	2,07E-01	2,42E-01	2,42E-01
Kaolinite	Raw	kg	1,30E-04	1,30E-04	8,20E-05	8,20E-05	6,66E-05	6,66E-05
Kieserite	Raw	kg	1,54E-06	1,54E-06	6,29E-07	6,29E-07	5,51E-07	5,51E-07
Lead	Raw	kg	4,23E-04	4,23E-04	2,52E-04	2,52E-04	2,42E-04	2,42E-04
Lithium	Raw	kg	1,40E-06	1,40E-06	2,92E-07	2,92E-07	6,14E-10	6,14E-10
Magnesite	Raw	kg	3,08E-03	3,08E-03	2,51E-03	2,51E-03	3,17E-03	3,17E-03
Magnesium	Raw	kg	2,41E-07	2,41E-07	1,35E-07	1,35E-07	6,28E-06	6,28E-06
Magnesium chloride	Raw	kg	x	x	6,02E-04	6,02E-04	x	x
Manganese	Raw	kg	1,91E-03	1,91E-03	1,71E-03	1,71E-03	2,08E-03	2,08E-03
Metamorphous rock, graphite containing	Raw	kg	1,50E-02	1,50E-02	1,25E-02	1,25E-02	2,96E-03	2,96E-03
Molybdenum	Raw	kg	4,17E-05	4,17E-05	3,86E-05	3,86E-05	6,07E-05	6,07E-05
Molybdenum, 0.010% in sulfide, Mo 8.2E-3% and Cu 1.83% in crude ore, in ground	Raw	kg	1,15E-04	1,15E-04	8,55E-05	8,55E-05	8,22E-05	8,22E-05
Molybdenum, 0.014% in sulfide, Mo 8.2E-3% and Cu 0.81% in crude ore, in ground	Raw	kg	1,63E-05	1,63E-05	1,19E-05	1,19E-05	1,17E-05	1,17E-05

Molybdenum, 0.022% in sulfide, Mo 8.2E-3% and Cu 0.36% in crude ore, in ground	Raw	kg	2,07E-05	2,07E-05	1,92E-05	1,92E-05	3,01E-05	3,01E-05
Molybdenum, 0.025% in sulfide, Mo 8.2E-3% and Cu 0.39% in crude ore, in ground	Raw	kg	5,97E-05	5,97E-05	4,37E-05	4,37E-05	4,27E-05	4,27E-05
Natural aggregate	Raw	kg	x	x	1,16E-05	1,16E-05	x	x
Nickel	Raw	kg	x	x	1,20E-09	1,20E-09	x	x
Nickel, 1.13% in sulfide, Ni 0.76% and Cu 0.76% in crude ore, in ground	Raw	kg	1,92E-04	1,92E-04	3,51E-04	3,51E-04	6,22E-04	6,22E-04
Nickel, 1.98% in silicates, 1.04% in crude ore, in ground	Raw	kg	1,64E-02	1,64E-02	1,28E-02	1,28E-02	1,43E-02	1,43E-02
Nitrogen, in air	Raw	kg	x	x	-1,77E-12	-1,77E-12	x	x
Occupation, arable	Raw	m2a	9,43E+00	9,43E+00	3,52E+00	3,52E+00	x	x
Occupation, arable, non-irrigated	Raw	m2a	9,26E-01	9,26E-01	5,34E+00	5,34E+00	4,08E-02	4,08E-02
Occupation, construction site	Raw	m2a	1,54E-02	1,54E-02	5,90E-02	5,90E-02	1,23E-03	1,23E-03
Occupation, dump site	Raw	m2a	3,65E-02	3,65E-02	1,65E-02	1,65E-02	9,09E-03	9,09E-03
Occupation, dump site, benthos	Raw	m2a	1,29E-03	1,29E-03	1,15E-03	1,15E-03	3,20E-04	3,20E-04
Occupation, forest, intensive	Raw	m2a	1,67E+00	1,67E+00	1,98E-02	1,98E-02	1,65E-02	1,65E-02
Occupation, forest, intensive, normal	Raw	m2a	8,03E-01	8,03E-01	4,92E-01	4,92E-01	2,04E+02	2,04E+02
Occupation, forest, intensive, short-cycle	Raw	m2a	5,63E-03	5,63E-03	6,49E-03	6,49E-03	7,58E-05	7,58E-05
Occupation, industrial area	Raw	m2a	1,72E-02	1,72E-02	1,74E-02	1,74E-02	3,80E-02	3,80E-02
Occupation, industrial area, benthos	Raw	m2a	1,24E-05	1,24E-05	1,10E-05	1,10E-05	8,26E-06	8,26E-06
Occupation, industrial area, built up	Raw	m2a	2,14E-01	2,14E-01	2,96E-02	2,96E-02	3,49E-02	3,49E-02
Occupation, industrial area, vegetation	Raw	m2a	1,20E-02	1,20E-02	1,10E-02	1,10E-02	1,62E-02	1,62E-02
Occupation, mineral extraction site	Raw	m2a	2,35E-02	2,35E-02	1,51E-02	1,51E-02	9,26E-03	9,26E-03
Occupation, permanent crop, fruit, intensive	Raw	m2a	3,90E-03	3,90E-03	6,26E-03	6,26E-03	8,87E-05	8,87E-05
Occupation, shrub land, sclerophyllous	Raw	m2a	1,04E-03	1,04E-03	7,81E-04	7,81E-04	7,63E-04	7,63E-04
Occupation, traffic area, rail embankment	Raw	m2a	6,17E-03	6,17E-03	2,85E-03	2,85E-03	6,15E-03	6,15E-03
Occupation, traffic area, rail network	Raw	m2a	6,82E-03	6,82E-03	3,15E-03	3,15E-03	6,80E-03	6,80E-03
Occupation, traffic area, road embankment	Raw	m2a	3,63E-02	3,63E-02	5,89E-03	5,89E-03	1,99E+00	1,99E+00
Occupation, traffic area, road network	Raw	m2a	1,66E-02	1,66E-02	1,26E-02	1,26E-02	1,59E-02	1,59E-02

Occupation, urban, discontinuously built	Raw	m2a	7,16E-03	7,16E-03	2,64E-03	2,64E-03	3,83E-05	3,83E-05
Occupation, water bodies, artificial	Raw	m2a	2,43E-02	2,43E-02	1,59E-02	1,59E-02	1,41E-02	1,41E-02
Occupation, water courses, artificial	Raw	m2a	1,47E-02	1,47E-02	1,02E-02	1,02E-02	1,08E-02	1,08E-02
Oil, crude	Raw	kg	3,86E+00	3,86E+00	1,36E+00	1,36E+00	1,20E+00	1,20E+00
Olivine	Raw	kg	6,34E-06	6,34E-06	7,81E-07	7,81E-07	3,34E-08	3,34E-08
Oxygen, in air	Raw	kg	x	x	-4,64E-06	-4,64E-06	x	x
Palladium	Raw	kg	x	x	6,01E-15	6,01E-15	x	x
Pd, Pd 2.0E-4%, Pt 4.8E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	6,73E-09	6,73E-09	4,20E-09	4,20E-09	5,30E-09	5,30E-09
Pd, Pd 7.3E-4%, Pt 2.5E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	1,62E-08	1,62E-08	1,01E-08	1,01E-08	1,27E-08	1,27E-08
Peat	Raw	kg	1,25E-02	1,25E-02	1,18E-02	1,18E-02	2,89E-04	2,89E-04
Phosphorus	Raw	kg	3,13E-01	3,13E-01	1,26E-01	1,26E-01	7,81E-05	7,81E-05
Phosphorus, 18% in apatite, 4% in crude ore, in ground	Raw	kg	1,51E-03	1,51E-03	5,39E-02	5,39E-02	7,55E-05	7,55E-05
Platinum	Raw	kg	x	x	7,22E-14	7,22E-14	x	x
Potassium chloride	Raw	kg	1,25E-01	1,25E-01	6,48E-02	6,48E-02	2,02E-04	2,02E-04
Pt, Pt 2.5E-4%, Pd 7.3E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	2,43E-10	2,43E-10	1,49E-10	1,49E-10	6,47E-11	6,47E-11
Pt, Pt 4.8E-4%, Pd 2.0E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	8,70E-10	8,70E-10	5,32E-10	5,32E-10	2,32E-10	2,32E-10
Pumice	Raw	kg	x	x	1,54E-10	1,54E-10	x	x
Rh, Rh 2.0E-5%, Pt 2.5E-4%, Pd 7.3E-4%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	9,84E-11	9,84E-11	4,35E-11	4,35E-11	5,67E-11	5,67E-11
Rh, Rh 2.4E-5%, Pt 4.8E-4%, Pd 2.0E-4%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	3,08E-10	3,08E-10	1,36E-10	1,36E-10	1,78E-10	1,78E-10
Rhenium	Raw	kg	9,59E-11	9,59E-11	5,35E-11	5,35E-11	1,70E-10	1,70E-10
Sand	Raw	kg	5,09E-04	5,09E-04	1,25E-04	1,25E-04	9,64E-06	9,64E-06
Shale	Raw	kg	4,92E-05	4,92E-05	5,51E-06	5,51E-06	2,34E-07	2,34E-07
Silver	Raw	kg	x	x	3,46E-13	3,46E-13	x	x
Silver, 0.007% in sulfide, Ag 0.004%, Pb, Zn, Cd, In, in ground	Raw	kg	3,90E-07	3,90E-07	3,16E-07	3,16E-07	3,30E-07	3,30E-07
Silver, 3.2ppm in sulfide, Ag 1.2ppm, Cu and Te, in crude ore, in ground	Raw	kg	2,79E-07	2,79E-07	2,25E-07	2,25E-07	2,36E-07	2,36E-07

Silver, Ag 2.1E-4%, Au 2.1E-4%, in ore, in ground	Raw	kg	2,57E-08	2,57E-08	2,08E-08	2,08E-08	2,18E-08	2,18E-08
Silver, Ag 4.2E-3%, Au 1.1E-4%, in ore, in ground	Raw	kg	5,87E-08	5,87E-08	4,75E-08	4,75E-08	4,97E-08	4,97E-08
Silver, Ag 4.6E-5%, Au 1.3E-4%, in ore, in ground	Raw	kg	5,76E-08	5,76E-08	4,65E-08	4,65E-08	4,87E-08	4,87E-08
Silver, Ag 9.7E-4%, Au 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	3,80E-08	3,80E-08	3,07E-08	3,07E-08	3,21E-08	3,21E-08
Slate	Raw	kg	x	x	2,59E-18	2,59E-18	x	x
Sodium chloride	Raw	kg	4,55E-01	4,55E-01	2,85E-01	2,85E-01	8,87E-02	8,87E-02
Sodium nitrate	Raw	kg	2,70E-09	2,70E-09	6,39E-11	6,39E-11	5,33E-11	5,33E-11
Sodium sulphate	Raw	kg	3,20E-03	3,20E-03	2,05E-04	2,05E-04	1,45E-04	1,45E-04
Soil	Raw	kg	6,16E+00	6,16E+00	6,39E+00	6,39E+00	1,02E+01	1,02E+01
Stibnite	Raw	kg	1,39E-10	1,39E-10	8,86E-11	8,86E-11	9,25E-11	9,25E-11
Sulfur	Raw	kg	5,61E-04	5,61E-04	2,77E-04	2,77E-04	6,54E-06	6,54E-06
Talc	Raw	kg	6,97E-04	6,97E-04	7,34E-06	7,34E-06	5,36E-06	5,36E-06
Tantalum	Raw	kg	3,07E-07	3,07E-07	2,49E-07	2,49E-07	2,60E-07	2,60E-07
Tellurium	Raw	kg	4,18E-08	4,18E-08	3,38E-08	3,38E-08	3,53E-08	3,53E-08
Tin	Raw	kg	1,60E-05	1,60E-05	1,36E-05	1,36E-05	1,50E-05	1,50E-05
TiO2, 54% in ilmenite, 2.6% in crude ore, in ground	Raw	kg	2,19E-01	2,19E-01	2,07E-01	2,07E-01	6,70E-04	6,70E-04
TiO2, 95% in rutile, 0.40% in crude ore, in ground	Raw	kg	6,09E-09	6,09E-09	3,18E-09	3,18E-09	2,85E-09	2,85E-09
Titanium	Raw	kg	x	x	1,06E-08	1,06E-08	x	x
Transformation, from arable	Raw	m2	2,02E+01	2,02E+01	9,34E+00	9,34E+00	5,28E-05	5,28E-05
Transformation, from arable, non-irrigated	Raw	m2	9,14E+00	9,14E+00	1,14E+01	1,14E+01	7,54E-02	7,54E-02
Transformation, from arable, non-irrigated, fallow	Raw	m2	6,05E-05	6,05E-05	1,56E-05	1,56E-05	1,56E-05	1,56E-05
Transformation, from dump site, inert material landfill	Raw	m2	4,11E-05	4,11E-05	4,61E-05	4,61E-05	1,02E-04	1,02E-04
Transformation, from dump site, residual material landfill	Raw	m2	1,25E-04	1,25E-04	7,18E-05	7,18E-05	4,02E-05	4,02E-05
Transformation, from dump site, sanitary landfill	Raw	m2	3,92E-06	3,92E-06	4,94E-06	4,94E-06	3,89E-06	3,89E-06
Transformation, from dump site, slag compartment	Raw	m2	3,69E-05	3,69E-05	3,32E-05	3,32E-05	6,63E-06	6,63E-06
Transformation, from forest	Raw	m2	3,06E-03	3,06E-03	2,17E-03	2,17E-03	2,05E-03	2,05E-03

Transformation, from forest, extensive	Raw	m2	1,79E-02	1,79E-02	4,18E-03	4,18E-03	1,37E+00	1,37E+00
Transformation, from forest, intensive, clear-cutting	Raw	m2	2,01E-04	2,01E-04	2,32E-04	2,32E-04	2,71E-06	2,71E-06
Transformation, from industrial area	Raw	m2	3,37E-05	3,37E-05	2,65E-05	2,65E-05	2,32E-05	2,32E-05
Transformation, from industrial area, benthos	Raw	m2	9,27E-08	9,27E-08	1,02E-07	1,02E-07	4,60E-08	4,60E-08
Transformation, from industrial area, built up	Raw	m2	5,34E-07	5,34E-07	1,92E-05	1,92E-05	2,67E-08	2,67E-08
Transformation, from industrial area, vegetation	Raw	m2	9,11E-07	9,11E-07	3,28E-05	3,28E-05	4,56E-08	4,56E-08
Transformation, from mineral extraction site	Raw	m2	9,93E-04	9,93E-04	5,89E-04	5,89E-04	2,34E-04	2,34E-04
Transformation, from pasture and meadow	Raw	m2	1,75E-01	1,75E-01	7,27E-04	7,27E-04	3,25E-04	3,25E-04
Transformation, from pasture and meadow, intensive	Raw	m2	-5,68E-01	-5,68E-01	1,84E-06	1,84E-06	6,15E-05	6,15E-05
Transformation, from sea and ocean	Raw	m2	1,29E-03	1,29E-03	1,15E-03	1,15E-03	3,21E-04	3,21E-04
Transformation, from shrub land, sclerophyllous	Raw	m2	2,86E-04	2,86E-04	2,00E-02	2,00E-02	2,14E-04	2,14E-04
Transformation, from tropical rain forest	Raw	m2	2,01E-04	2,01E-04	2,32E-04	2,32E-04	2,71E-06	2,71E-06
Transformation, from unknown	Raw	m2	2,08E-03	2,08E-03	1,80E-03	1,80E-03	3,33E-03	3,33E-03
Transformation, to arable	Raw	m2	2,02E+01	2,02E+01	9,34E+00	9,34E+00	2,05E-04	2,05E-04
Transformation, to arable, non-irrigated	Raw	m2	8,75E+00	8,75E+00	1,14E+01	1,14E+01	7,55E-02	7,55E-02
Transformation, to arable, non-irrigated, fallow	Raw	m2	6,63E-05	6,63E-05	1,78E-05	1,78E-05	1,81E-05	1,81E-05
Transformation, to dump site	Raw	m2	2,50E-04	2,50E-04	1,03E-04	1,03E-04	5,26E-05	5,26E-05
Transformation, to dump site, benthos	Raw	m2	1,29E-03	1,29E-03	1,15E-03	1,15E-03	3,20E-04	3,20E-04
Transformation, to dump site, inert material landfill	Raw	m2	4,11E-05	4,11E-05	4,61E-05	4,61E-05	1,02E-04	1,02E-04
Transformation, to dump site, residual material landfill	Raw	m2	1,25E-04	1,25E-04	7,19E-05	7,19E-05	4,03E-05	4,03E-05
Transformation, to dump site, sanitary landfill	Raw	m2	3,92E-06	3,92E-06	4,94E-06	4,94E-06	3,89E-06	3,89E-06
Transformation, to dump site, slag compartment	Raw	m2	3,69E-05	3,69E-05	3,32E-05	3,32E-05	6,63E-06	6,63E-06
Transformation, to forest	Raw	m2	3,06E-04	3,06E-04	2,26E-04	2,26E-04	2,20E-04	2,20E-04
Transformation, to forest, intensive	Raw	m2	1,11E-02	1,11E-02	1,32E-04	1,32E-04	1,10E-04	1,10E-04
Transformation, to forest, intensive, clear-cutting	Raw	m2	2,01E-04	2,01E-04	2,32E-04	2,32E-04	2,71E-06	2,71E-06
Transformation, to forest, intensive, normal	Raw	m2	6,40E-03	6,40E-03	3,91E-03	3,91E-03	1,35E+00	1,35E+00

Transformation, to forest, intensive, short-cycle	Raw	m2	2,01E-04	2,01E-04	2,32E-04	2,32E-04	2,71E-06	2,71E-06
Transformation, to heterogeneous, agricultural	Raw	m2	1,44E-04	1,44E-04	1,00E-04	1,00E-04	9,37E-05	9,37E-05
Transformation, to industrial area	Raw	m2	2,66E-04	2,66E-04	4,63E-04	4,63E-04	1,33E-03	1,33E-03
Transformation, to industrial area, benthos	Raw	m2	1,23E-06	1,23E-06	1,03E-06	1,03E-06	1,02E-06	1,02E-06
Transformation, to industrial area, built up	Raw	m2	7,46E-04	7,46E-04	6,42E-04	6,42E-04	7,04E-04	7,04E-04
Transformation, to industrial area, vegetation	Raw	m2	2,45E-04	2,45E-04	2,39E-04	2,39E-04	3,29E-04	3,29E-04
Transformation, to mineral extraction site	Raw	m2	3,91E-03	3,91E-03	2,54E-03	2,54E-03	2,59E-03	2,59E-03
Transformation, to pasture and meadow	Raw	m2	4,98E-04	4,98E-04	3,72E-04	3,72E-04	1,26E-05	1,26E-05
Transformation, to permanent crop, fruit, intensive	Raw	m2	5,48E-05	5,48E-05	8,81E-05	8,81E-05	1,25E-06	1,25E-06
Transformation, to sea and ocean	Raw	m2	9,27E-08	9,27E-08	1,02E-07	1,02E-07	4,60E-08	4,60E-08
Transformation, to shrub land, sclerophyllous	Raw	m2	2,07E-04	2,07E-04	1,56E-04	1,56E-04	1,53E-04	1,53E-04
Transformation, to traffic area, rail embankment	Raw	m2	1,44E-05	1,44E-05	6,64E-06	6,64E-06	1,43E-05	1,43E-05
Transformation, to traffic area, rail network	Raw	m2	1,58E-05	1,58E-05	7,30E-06	7,30E-06	1,57E-05	1,57E-05
Transformation, to traffic area, road embankment	Raw	m2	2,49E-04	2,49E-04	4,26E-05	4,26E-05	1,33E-02	1,33E-02
Transformation, to traffic area, road network	Raw	m2	1,81E-04	1,81E-04	1,36E-04	1,36E-04	1,53E-04	1,53E-04
Transformation, to unknown	Raw	m2	4,18E-05	4,18E-05	6,94E-05	6,94E-05	3,12E-05	3,12E-05
Transformation, to urban, discontinuously built	Raw	m2	1,43E-04	1,43E-04	5,25E-05	5,25E-05	7,62E-07	7,62E-07
Transformation, to water bodies, artificial	Raw	m2	1,92E-04	1,92E-04	1,30E-04	1,30E-04	1,95E-04	1,95E-04
Transformation, to water courses, artificial	Raw	m2	1,74E-04	1,74E-04	1,22E-04	1,22E-04	1,30E-04	1,30E-04
Ulexite	Raw	kg	2,81E-06	2,81E-06	1,52E-06	1,52E-06	4,02E-07	4,02E-07
Uranium	Raw	kg	1,75E-04	1,75E-04	9,80E-05	9,80E-05	9,38E-05	9,38E-05
Vermiculite	Raw	kg	7,77E-06	7,77E-06	5,87E-06	5,87E-06	1,23E-06	1,23E-06
Volume occupied, final repository for low-active radioactive waste	Raw	m3	3,34E-07	3,34E-07	1,97E-07	1,97E-07	1,93E-07	1,93E-07
Volume occupied, final repository for radioactive waste	Raw	m3	8,35E-08	8,35E-08	4,94E-08	4,94E-08	4,88E-08	4,88E-08
Volume occupied, reservoir	Raw	m3y	2,83E-01	2,83E-01	2,06E-01	2,06E-01	2,10E-01	2,10E-01
Volume occupied, underground deposit	Raw	m3	9,27E-05	9,27E-05	9,26E-05	9,26E-05	9,25E-05	9,25E-05

Water, cooling, unspecified natural origin/m3	Raw	m3	8,11E-01	8,11E-01	3,21E-01	3,21E-01	2,09E-01	2,09E-01
Water, lake	Raw	m3	8,18E-03	8,18E-03	6,18E-03	6,18E-03	1,30E-03	1,30E-03
Water, rain	Raw	m3	x	x	x	x	x	x
Water, river	Raw	m3	2,62E+00	2,62E+00	2,17E+00	2,17E+00	5,12E-02	5,12E-02
Water, salt, ocean	Raw	m3	1,36E-02	1,36E-02	8,68E-03	8,68E-03	8,57E-03	8,57E-03
Water, salt, sole	Raw	m3	1,57E-01	1,57E-01	5,39E-02	5,39E-02	9,78E-04	9,78E-04
Water, turbine use, unspecified natural origin	Raw	m3	1,59E+02	1,59E+02	9,39E+01	9,39E+01	1,01E+02	1,01E+02
Water, unspecified natural origin/kg	Raw	kg	x	x	7,26E-02	7,26E-02	x	x
Water, unspecified natural origin/m3	Raw	m3	1,42E-01	1,42E-01	9,11E-02	9,11E-02	5,45E-02	5,45E-02
Water, well, in ground	Raw	m3	4,60E-02	4,60E-02	2,78E-02	2,78E-02	1,37E-02	1,37E-02
Wood, hard, standing	Raw	m3	1,41E-04	1,41E-04	9,67E-05	9,67E-05	3,77E-02	3,77E-02
Wood, primary forest, standing	Raw	m3	2,08E-06	2,08E-06	2,40E-06	2,40E-06	2,80E-08	2,80E-08
Wood, soft, standing	Raw	m3	1,37E-03	1,37E-03	3,14E-04	3,14E-04	9,06E-05	9,06E-05
Wood, unspecified, standing/m3	Raw	m3	1,14E-07	1,14E-07	1,36E-08	1,36E-08	4,81E-10	4,81E-10
Zinc	Raw	kg	1,62E-01	1,62E-01	1,61E-01	1,61E-01	1,62E-01	1,62E-01
Zirconium	Raw	kg	4,17E-07	4,17E-07	3,39E-07	3,39E-07	3,56E-07	3,56E-07
1-Butanol	Air	kg	8,55E-09	8,55E-09	1,23E-08	1,23E-08	1,25E-11	1,25E-11
1-Pentanol	Air	kg	2,64E-08	2,64E-08	5,52E-09	5,52E-09	1,16E-11	1,16E-11
1-Pentene	Air	kg	2,00E-08	2,00E-08	4,17E-09	4,17E-09	8,76E-12	8,76E-12
1-Propanol	Air	kg	1,21E-07	1,21E-07	1,13E-07	1,13E-07	7,58E-10	7,58E-10
1,4-Butanediol	Air	kg	2,84E-08	2,84E-08	4,37E-08	4,37E-08	1,23E-10	1,23E-10
2-Aminopropanol	Air	kg	1,21E-08	1,21E-08	5,83E-09	5,83E-09	1,03E-11	1,03E-11
2-Butene, 2-methyl-	Air	kg	4,43E-12	4,43E-12	9,26E-13	9,26E-13	1,94E-15	1,94E-15
2-Methyl-1-propanol	Air	kg	5,50E-08	5,50E-08	1,79E-08	1,79E-08	3,04E-11	3,04E-11
2-Nitrobenzoic acid	Air	kg	1,08E-08	1,08E-08	1,41E-08	1,41E-08	1,85E-11	1,85E-11
2-Propanol	Air	kg	2,41E-06	2,41E-06	1,58E-06	1,58E-06	1,61E-06	1,61E-06

Acenaphthene	Air	kg	1,11E-10	1,11E-10	1,59E-11	1,59E-11	-2,07E-11	-2,07E-11
Acetaldehyde	Air	kg	7,73E-06	7,73E-06	2,69E-05	2,69E-05	1,63E-05	1,63E-05
Acetic acid	Air	kg	1,04E-03	1,04E-03	9,73E-04	9,73E-04	2,10E-05	2,10E-05
Acetone	Air	kg	8,28E-06	8,28E-06	6,01E-06	6,01E-06	5,50E-06	5,50E-06
Acetonitrile	Air	kg	2,19E-07	2,19E-07	2,52E-07	2,52E-07	2,94E-09	2,94E-09
Acidity, unspecified	Air	kg	x	x	4,02E-11	4,02E-11	x	x
Acrolein	Air	kg	9,65E-08	9,65E-08	7,78E-09	7,78E-09	3,94E-09	3,94E-09
Acrylic acid	Air	kg	4,89E-09	4,89E-09	3,98E-09	3,98E-09	4,17E-09	4,17E-09
Actinides, radioactive, unspecified	Air	Bq	3,49E-01	3,49E-01	7,88E-03	7,88E-03	7,50E-03	7,50E-03
Aerosols, radioactive, unspecified	Air	Bq	8,03E-02	8,03E-02	4,16E-02	4,16E-02	4,13E-02	4,13E-02
Aldehydes, unspecified	Air	kg	9,70E-07	9,70E-07	2,35E-07	2,35E-07	1,12E-07	1,12E-07
Aluminium	Air	kg	1,45E-03	1,59E-03	8,83E-04	9,63E-04	6,81E-04	7,59E-04
Ammonia	Air	kg	2,89E-02	2,89E-02	2,03E-02	2,03E-02	4,72E-03	4,72E-03
Ammonium carbonate	Air	kg	2,97E-08	2,97E-08	1,86E-08	1,86E-08	1,19E-07	1,19E-07
Ammonium, ion	Air	kg	x	x	3,60E-14	3,60E-14	x	x
Aniline	Air	kg	5,63E-08	5,63E-08	3,66E-08	3,66E-08	8,49E-11	8,49E-11
Anthracene	Air	kg	x	x	8,81E-14	8,81E-14	x	x
Anthranilic acid	Air	kg	8,05E-09	8,05E-09	1,10E-08	1,10E-08	1,35E-11	1,35E-11
Antimony	Air	kg	5,18E-07	5,31E-07	3,69E-07	3,76E-07	3,69E-07	3,76E-07
Antimony-124	Air	Bq	4,61E-07	4,61E-07	4,49E-07	4,49E-07	6,41E-07	6,41E-07
Antimony-125	Air	Bq	4,81E-06	4,81E-06	4,66E-06	4,66E-06	6,69E-06	6,69E-06
Argon-41	Air	Bq	3,25E+01	3,25E+01	1,65E+01	1,65E+01	1,15E+01	1,15E+01
Arsenic	Air	kg	5,89E-06	6,61E-06	4,81E-06	5,23E-06	4,85E-06	5,26E-06
Arsenic trioxide	Air	kg	x	x	4,31E-16	4,31E-16	x	x
Arsine	Air	kg	5,70E-14	5,70E-14	8,22E-14	8,22E-14	4,87E-14	4,87E-14
Barium	Air	kg	2,27E-06	3,06E-06	1,35E-06	1,81E-06	1,30E-06	1,75E-06

Barium-140	Air	Bq	3,13E-04	3,13E-04	3,03E-04	3,03E-04	4,35E-04	4,35E-04
Benzal chloride	Air	kg	2,06E-13	2,06E-13	2,61E-14	2,61E-14	2,62E-14	2,62E-14
Benzaldehyde	Air	kg	2,34E-08	2,34E-08	3,05E-09	3,05E-09	1,14E-09	1,14E-09
Benzene	Air	kg	1,60E-04	1,60E-04	2,34E-04	2,34E-04	2,24E-04	2,24E-04
Benzene, 1-methyl-2-nitro-	Air	kg	9,30E-09	9,30E-09	1,22E-08	1,22E-08	1,60E-11	1,60E-11
Benzene, 1,2-dichloro-	Air	kg	1,62E-09	1,62E-09	6,76E-08	6,76E-08	3,42E-10	3,42E-10
Benzene, 1,3,5-trimethyl-	Air	kg	x	x	2,14E-16	2,14E-16	x	x
Benzene, ethyl-	Air	kg	9,54E-06	9,54E-06	6,12E-06	6,12E-06	7,35E-06	7,35E-06
Benzene, hexachloro-	Air	kg	1,07E-08	1,07E-08	9,85E-09	9,85E-09	1,41E-08	1,41E-08
Benzene, pentachloro-	Air	kg	2,17E-08	2,17E-08	2,06E-08	2,06E-08	3,01E-08	3,01E-08
Benzo(a)anthracene	Air	kg	x	x	4,43E-14	4,43E-14	x	x
Benzo(a)pyrene	Air	kg	4,84E-07	4,84E-07	4,80E-07	4,80E-07	4,77E-07	4,77E-07
Benzo(b)fluoranthene	Air	kg	x	x	7,91E-14	7,91E-14	x	x
Benzo(g,h,i)perylene	Air	kg	x	x	3,96E-14	3,96E-14	x	x
Beryllium	Air	kg	1,49E-08	3,21E-08	7,66E-09	1,77E-08	7,24E-09	1,70E-08
Boron	Air	kg	1,01E-04	1,02E-04	5,43E-05	5,44E-05	5,78E-05	5,79E-05
Boron trifluoride	Air	kg	7,80E-16	7,80E-16	6,35E-16	6,35E-16	6,66E-16	6,66E-16
Bromine	Air	kg	1,20E-05	1,20E-05	1,62E-05	1,62E-05	1,66E-05	1,66E-05
Butadiene	Air	kg	1,85E-08	1,85E-08	3,61E-09	3,61E-09	5,57E-11	5,57E-11
Butane	Air	kg	2,28E-04	2,28E-04	1,73E-04	1,73E-04	1,12E-04	1,12E-04
Butene	Air	kg	2,83E-06	2,83E-06	3,23E-06	3,23E-06	1,65E-06	1,65E-06
Butyrolactone	Air	kg	2,94E-11	2,94E-11	2,39E-11	2,39E-11	2,50E-11	2,50E-11
Cadmium	Air	kg	1,76E-06	1,78E-06	1,45E-06	1,46E-06	1,60E-06	1,61E-06
Calcium	Air	kg	2,47E-04	2,91E-04	1,10E-03	1,13E-03	1,05E-03	1,08E-03
Carbon-14	Air	Bq	2,79E+02	2,79E+02	1,72E+02	1,72E+02	1,78E+02	1,78E+02
Carbon dioxide, biogenic	Air	kg	6,09E+00	6,09E+00	1,91E+01	1,91E+01	3,63E+01	3,63E+01

Carbon dioxide, fossil	Air	kg	3,52E+01	3,52E+01	2,40E+01	2,40E+01	8,94E+00	8,94E+00
Carbon dioxide, land transformation	Air	kg	3,92E-03	3,92E-03	3,59E-02	3,59E-02	3,89E-04	3,89E-04
Carbon disulfide	Air	kg	3,28E-04	3,28E-04	1,87E-04	1,87E-04	1,88E-04	1,88E-04
Carbon monoxide, biogenic	Air	kg	2,05E-03	2,05E-03	4,14E-01	4,14E-01	2,51E-02	2,51E-02
Carbon monoxide, fossil	Air	kg	4,10E-02	4,10E-02	2,72E-02	2,72E-02	5,21E-02	5,21E-02
Cerium-141	Air	Bq	7,59E-05	7,59E-05	7,34E-05	7,34E-05	1,05E-04	1,05E-04
Cesium-134	Air	Bq	3,63E-06	3,63E-06	5,64E-06	5,64E-06	5,05E-06	5,05E-06
Cesium-137	Air	Bq	6,44E-05	6,44E-05	6,67E-05	6,67E-05	8,96E-05	8,96E-05
Chloramine	Air	kg	1,11E-07	1,11E-07	3,43E-08	3,43E-08	6,21E-11	6,21E-11
Chloride	Air	kg	x	x	3,63E-10	3,63E-10	x	x
Chlorine	Air	kg	3,45E-05	3,62E-05	4,49E-05	4,59E-05	3,65E-05	3,74E-05
Chloroacetic acid	Air	kg	4,69E-07	4,69E-07	1,63E-07	1,63E-07	7,58E-09	7,58E-09
Chloroform	Air	kg	3,13E-07	3,13E-07	1,58E-07	1,58E-07	7,71E-09	7,71E-09
Chlorosilane, trimethyl-	Air	kg	1,28E-09	1,28E-09	9,78E-10	9,78E-10	1,58E-09	1,58E-09
Chlorosulfonic acid	Air	kg	-1,73E-08	-1,73E-08	1,69E-08	1,69E-08	1,28E-10	1,28E-10
Chromium	Air	kg	2,94E-05	2,94E-05	1,82E-05	1,82E-05	2,03E-05	2,03E-05
Chromium-51	Air	Bq	4,86E-06	4,86E-06	4,70E-06	4,70E-06	6,76E-06	6,76E-06
Chromium VI	Air	kg	5,88E-07	6,76E-07	4,50E-07	5,01E-07	5,01E-07	5,51E-07
Chromium, ion	Air	kg	x	x	1,27E-13	1,27E-13	x	x
Chrysene	Air	kg	x	x	1,09E-13	1,09E-13	x	x
Cobalt	Air	kg	1,48E-06	1,59E-06	1,19E-06	1,25E-06	1,63E-06	1,69E-06
Cobalt-58	Air	Bq	6,77E-06	6,77E-06	6,56E-06	6,56E-06	9,41E-06	9,41E-06
Cobalt-60	Air	Bq	5,98E-05	5,98E-05	5,82E-05	5,82E-05	8,32E-05	8,32E-05
Copper	Air	kg	2,76E-05	2,87E-05	1,66E-05	1,73E-05	1,85E-05	1,92E-05
Cumene	Air	kg	1,72E-05	1,72E-05	4,00E-06	4,00E-06	7,40E-07	7,40E-07
Cyanide	Air	kg	3,25E-05	3,25E-05	2,82E-05	2,82E-05	1,16E-05	1,16E-05

Cyanoacetic acid	Air	kg	-1,42E-08	-1,42E-08	1,38E-08	1,38E-08	1,05E-10	1,05E-10
Cyclohexane	Air	kg	x	x	1,87E-12	1,87E-12	x	x
Dibenz(a,h)anthracene	Air	kg	x	x	2,47E-14	2,47E-14	x	x
Diethanolamine	Air	kg	x	x	5,88E-19	5,88E-19	x	x
Diethylamine	Air	kg	3,34E-08	3,34E-08	1,74E-08	1,74E-08	4,34E-11	4,34E-11
Dimethyl malonate	Air	kg	-1,77E-08	-1,77E-08	1,73E-08	1,73E-08	1,31E-10	1,31E-10
Dinitrogen monoxide	Air	kg	9,76E-03	9,76E-03	4,77E-03	4,77E-03	7,74E-04	7,74E-04
Dioxin, 2,3,7,8 Tetrachlorodibenzo-p-	Air	kg	8,07E-11	8,07E-11	7,84E-11	7,84E-11	1,09E-10	1,09E-10
Dipropylamine	Air	kg	1,43E-08	1,43E-08	7,81E-09	7,81E-09	2,16E-11	2,16E-11
Ethane	Air	kg	6,57E-04	6,57E-04	6,36E-04	6,36E-04	5,30E-04	5,30E-04
Ethane, 1,1-difluoro-, HFC-152a	Air	kg	7,94E-09	7,94E-09	4,08E-09	4,08E-09	3,37E-09	3,37E-09
Ethane, 1,1,1-trichloro-, HCFC-140	Air	kg	3,37E-09	3,37E-09	7,61E-11	7,61E-11	7,25E-11	7,25E-11
Ethane, 1,1,1,2-tetrafluoro-, HFC-134a	Air	kg	9,85E-07	9,85E-07	8,63E-07	8,63E-07	2,10E-06	2,10E-06
Ethane, 1,1,2-trichloro-1,2,2-trifluoro-, CFC-113	Air	kg	2,32E-10	2,32E-10	1,89E-10	1,89E-10	1,98E-10	1,98E-10
Ethane, 1,2-dichloro-	Air	kg	4,24E-06	4,24E-06	7,57E-06	7,57E-06	4,46E-07	4,46E-07
Ethane, 1,2-dichloro-1,1,2,2-tetrafluoro-, CFC-114	Air	kg	1,36E-07	1,36E-07	7,28E-08	7,28E-08	5,51E-08	5,51E-08
Ethane, hexafluoro-, HFC-116	Air	kg	3,13E-06	3,13E-06	3,09E-06	3,09E-06	3,09E-06	3,09E-06
Ethanol	Air	kg	2,31E-05	2,31E-05	2,01E-05	2,01E-05	6,30E-06	6,30E-06
Ethene	Air	kg	1,62E-04	1,62E-04	1,30E-04	1,30E-04	3,07E-05	3,07E-05
Ethene, chloro-	Air	kg	5,91E-07	5,91E-07	2,94E-06	2,94E-06	2,64E-07	2,64E-07
Ethene, tetrachloro-	Air	kg	2,46E-05	2,46E-05	2,46E-05	2,46E-05	2,46E-05	2,46E-05
Ethyl acetate	Air	kg	8,82E-06	8,82E-06	7,26E-06	7,26E-06	7,49E-06	7,49E-06
Ethyl cellulose	Air	kg	1,78E-08	1,78E-08	1,44E-08	1,44E-08	1,52E-08	1,52E-08
Ethylamine	Air	kg	4,30E-07	4,30E-07	9,87E-08	9,87E-08	1,37E-10	1,37E-10
Ethylene diamine	Air	kg	1,83E-07	1,83E-07	4,75E-09	4,75E-09	2,06E-10	2,06E-10
Ethylene oxide	Air	kg	9,20E-07	9,20E-07	6,96E-07	6,96E-07	1,23E-08	1,23E-08
Ethyne	Air	kg	8,41E-05	8,41E-05	8,04E-05	8,04E-05	1,91E-06	1,91E-06

Fluoranthene	Air	kg	x	x	2,87E-13	2,87E-13	x	x
Fluorene	Air	kg	x	x	9,11E-13	9,11E-13	x	x
Fluoride	Air	kg	x	x	5,10E-10	5,10E-10	x	x
Fluorine	Air	kg	8,26E-07	9,14E-06	8,05E-06	1,29E-05	9,21E-06	1,39E-05
Fluosilicic acid	Air	kg	3,64E-06	3,64E-06	3,60E-06	3,60E-06	3,60E-06	3,60E-06
Formaldehyde	Air	kg	5,03E-05	5,03E-05	5,21E-05	5,21E-05	3,75E-03	3,75E-03
Formamide	Air	kg	4,83E-08	4,83E-08	1,01E-08	1,01E-08	2,12E-11	2,12E-11
Formic acid	Air	kg	1,49E-06	1,49E-06	1,70E-06	1,70E-06	2,91E-08	2,91E-08
Furan	Air	kg	4,15E-07	4,15E-07	4,79E-07	4,79E-07	5,59E-09	5,59E-09
Heat, waste	Air	MJ	6,31E+02	6,31E+02	5,63E+02	5,63E+02	5,58E+02	5,58E+02
Helium	Air	kg	7,23E-06	7,23E-06	3,76E-06	3,76E-06	4,05E-06	4,05E-06
Heptane	Air	kg	2,31E-05	2,31E-05	1,51E-05	1,51E-05	1,59E-05	1,59E-05
Hexamethylene diamine	Air	kg	x	x	1,24E-15	1,24E-15	x	x
Hexane	Air	kg	-1,71E-03	-1,71E-03	5,75E-05	5,75E-05	2,12E-05	2,12E-05
Hydrocarbons, aliphatic, alkanes, cyclic	Air	kg	-6,72E-06	-6,72E-06	2,27E-07	2,27E-07	1,88E-08	1,88E-08
Hydrocarbons, aliphatic, alkanes, unspecified	Air	kg	4,30E-04	4,30E-04	5,93E-04	5,93E-04	3,86E-04	3,86E-04
Hydrocarbons, aliphatic, unsaturated	Air	kg	3,95E-05	3,95E-05	4,84E-04	4,84E-04	5,60E-04	5,60E-04
Hydrocarbons, aromatic	Air	kg	5,00E-04	5,00E-04	4,09E-05	4,09E-05	4,39E-06	4,39E-06
Hydrocarbons, chlorinated	Air	kg	1,06E-04	1,06E-04	1,11E-04	1,11E-04	1,05E-04	1,05E-04
Hydrogen	Air	kg	6,13E-04	6,13E-04	2,17E-04	2,17E-04	2,71E-05	2,71E-05
Hydrogen-3, Tritium	Air	Bq	1,71E+03	1,71E+03	9,71E+02	9,71E+02	9,61E+02	9,61E+02
Hydrogen bromide	Air	kg	x	x	3,63E-12	3,63E-12	x	x
Hydrogen chloride	Air	kg	1,25E-03	1,25E-03	5,75E-04	5,75E-04	6,61E-04	6,61E-04
Hydrogen cyanide	Air	kg	x	x	5,65E-11	5,65E-11	x	x
Hydrogen fluoride	Air	kg	3,24E-04	3,24E-04	2,06E-04	2,06E-04	1,63E-04	1,63E-04
Hydrogen iodide	Air	kg	x	x	3,91E-15	3,91E-15	x	x

Hydrogen peroxide	Air	kg	1,32E-08	1,32E-08	1,07E-08	1,07E-08	1,12E-08	1,12E-08
Hydrogen sulfide	Air	kg	1,09E-04	1,09E-04	1,08E-04	1,08E-04	9,63E-05	9,63E-05
Indeno(1,2,3-cd)pyrene	Air	kg	x	x	2,94E-14	2,94E-14	x	x
Iodine	Air	kg	5,76E-06	5,76E-06	3,21E-06	3,21E-06	3,14E-06	3,14E-06
Iodine-129	Air	Bq	2,80E-01	2,80E-01	1,69E-01	1,69E-01	1,71E-01	1,71E-01
Iodine-131	Air	Bq	1,28E+01	1,28E+01	6,47E+00	6,47E+00	4,47E+00	4,47E+00
Iodine-133	Air	Bq	4,58E-02	4,58E-02	5,95E-04	5,95E-04	7,03E-04	7,03E-04
Iodine-135	Air	Bq	9,85E-02	9,85E-02	5,04E-04	5,04E-04	3,97E-04	3,97E-04
Iron	Air	kg	2,60E-05	1,74E-04	1,56E-05	1,02E-04	2,08E-05	1,05E-04
Isocyanic acid	Air	kg	1,57E-07	1,57E-07	1,56E-03	1,56E-03	1,07E-07	1,07E-07
Isoprene	Air	kg	1,93E-08	1,93E-08	2,22E-08	2,22E-08	2,59E-10	2,59E-10
Isopropylamine	Air	kg	4,64E-07	4,64E-07	3,44E-08	3,44E-08	4,64E-11	4,64E-11
Krypton-85	Air	Bq	1,02E+02	1,02E+02	5,16E+01	5,16E+01	3,62E+01	3,62E+01
Krypton-85m	Air	Bq	6,13E+00	6,13E+00	2,91E+02	2,91E+02	6,83E+00	6,83E+00
Krypton-87	Air	Bq	2,24E+00	2,24E+00	1,59E+00	1,59E+00	1,82E+00	1,82E+00
Krypton-88	Air	Bq	2,29E+00	2,29E+00	1,77E+00	1,77E+00	2,17E+00	2,17E+00
Krypton-89	Air	Bq	6,44E-01	6,44E-01	5,86E-01	5,86E-01	8,12E-01	8,12E-01
Lactic acid	Air	kg	1,12E-08	1,12E-08	6,12E-09	6,12E-09	1,69E-11	1,69E-11
Lanthanum-140	Air	Bq	2,67E-05	2,67E-05	2,59E-05	2,59E-05	3,72E-05	3,72E-05
Lead	Air	kg	3,43E-05	3,56E-05	3,40E-05	3,48E-05	3,79E-05	3,86E-05
Lead-210	Air	Bq	3,98E+00	3,98E+00	2,09E+00	2,09E+00	1,13E+00	1,13E+00
Lead compounds	Air	kg	x	x	2,53E-16	2,53E-16	x	x
m-Xylene	Air	kg	8,88E-07	8,88E-07	1,83E-05	1,83E-05	2,13E-05	2,13E-05
Magnesium	Air	kg	2,53E-05	3,89E-05	6,74E-05	7,53E-05	8,18E-05	8,95E-05
Manganese	Air	kg	3,70E-06	6,77E-06	2,80E-05	2,98E-05	3,20E-05	3,37E-05
Manganese-54	Air	Bq	2,49E-06	2,49E-06	2,41E-06	2,41E-06	3,46E-06	3,46E-06

Mercury	Air	kg	1,45E-06	1,45E-06	1,16E-06	1,16E-06	1,06E-06	1,07E-06
Methane	Air	kg	x	x	2,81E-05	2,81E-05	x	x
Methane, biogenic	Air	kg	2,07E-02	2,07E-02	2,09E-02	2,09E-02	1,44E-03	1,44E-03
Methane, bromo-, Halon 1001	Air	kg	4,71E-14	4,71E-14	5,97E-15	5,97E-15	5,99E-15	5,99E-15
Methane, bromochlorodifluoro-, Halon 1211	Air	kg	1,56E-07	1,56E-07	1,65E-07	1,65E-07	1,22E-07	1,22E-07
Methane, bromotrifluoro-, Halon 1301	Air	kg	7,61E-08	7,61E-08	4,18E-08	4,18E-08	4,44E-08	4,44E-08
Methane, chlorodifluoro-, HCFC-22	Air	kg	6,02E-07	6,02E-07	6,08E-07	6,08E-07	3,78E-07	3,78E-07
Methane, chlorotrifluoro-, CFC-13	Air	kg	x	x	1,26E-11	1,26E-11	x	x
Methane, dichloro-, HCC-30	Air	kg	1,19E-07	1,19E-07	4,46E-08	4,46E-08	1,56E-09	1,56E-09
Methane, dichlorodifluoro-, CFC-12	Air	kg	9,87E-09	9,87E-09	2,22E-07	2,22E-07	7,36E-09	7,36E-09
Methane, dichlorofluoro-, HCFC-21	Air	kg	1,64E-12	1,64E-12	1,31E-12	1,31E-12	1,34E-12	1,34E-12
Methane, fossil	Air	kg	8,35E-02	8,35E-02	3,48E-02	3,48E-02	2,61E-02	2,61E-02
Methane, monochloro-, R-40	Air	kg	8,93E-08	8,93E-08	7,82E-08	7,82E-08	1,95E-09	1,95E-09
Methane, tetrachloro-, CFC-10	Air	kg	1,92E-07	1,92E-07	1,39E-07	1,39E-07	1,41E-08	1,41E-08
Methane, tetrafluoro-, CFC-14	Air	kg	2,81E-05	2,81E-05	2,77E-05	2,77E-05	2,77E-05	2,77E-05
Methane, trichlorofluoro-, CFC-11	Air	kg	2,66E-12	2,66E-12	9,54E-11	9,54E-11	2,17E-12	2,17E-12
Methane, trifluoro-, HFC-23	Air	kg	5,21E-10	5,21E-10	4,16E-10	4,16E-10	4,26E-10	4,26E-10
Methanesulfonic acid	Air	kg	-1,43E-08	-1,43E-08	1,40E-08	1,40E-08	1,06E-10	1,06E-10
Methanol	Air	kg	4,80E-04	4,80E-04	4,13E-04	4,13E-04	5,76E-04	5,76E-04
Methyl acetate	Air	kg	2,49E-09	2,49E-09	3,27E-09	3,27E-09	4,29E-12	4,29E-12
Methyl acrylate	Air	kg	5,55E-09	5,55E-09	4,52E-09	4,52E-09	4,74E-09	4,74E-09
Methyl amine	Air	kg	-1,49E-08	-1,49E-08	6,93E-09	6,93E-09	4,47E-11	4,47E-11
Methyl borate	Air	kg	1,02E-08	1,02E-08	2,61E-09	2,61E-09	5,04E-12	5,04E-12
Methyl ethyl ketone	Air	kg	8,79E-06	8,79E-06	7,15E-06	7,15E-06	7,49E-06	7,49E-06
Methyl formate	Air	kg	1,28E-08	1,28E-08	2,69E-09	2,69E-09	2,40E-11	2,40E-11
Methyl lactate	Air	kg	1,23E-08	1,23E-08	6,72E-09	6,72E-09	1,86E-11	1,86E-11

Molybdenum	Air	kg	4,19E-07	6,56E-07	2,85E-07	4,24E-07	3,89E-07	5,24E-07
Monoethanolamine	Air	kg	1,49E-07	1,49E-07	6,42E-07	6,42E-07	2,58E-07	2,58E-07
Naphthalene	Air	kg	x	x	9,26E-12	9,26E-12	x	x
Nickel	Air	kg	3,42E-05	3,45E-05	1,80E-05	1,81E-05	1,84E-05	1,85E-05
Niobium-95	Air	Bq	2,96E-07	2,96E-07	2,86E-07	2,86E-07	4,11E-07	4,11E-07
Nitrate	Air	kg	4,66E-07	1,64E-06	2,74E-07	9,59E-07	2,58E-07	9,25E-07
Nitric oxide	Air	kg	x	x	2,72E-14	2,72E-14	x	x
Nitrobenzene	Air	kg	6,97E-08	6,97E-08	5,81E-08	5,81E-08	1,30E-10	1,30E-10
Nitrogen	Air	kg	x	x	1,28E-05	1,28E-05	x	x
Nitrogen oxides	Air	kg	6,51E-02	6,51E-02	5,51E-02	5,51E-02	5,67E-02	5,67E-02
NMVOC, non-methane volatile organic compounds, unspecified origin	Air	kg	1,68E-02	1,68E-02	6,32E-03	6,32E-03	1,68E-02	1,68E-02
Noble gases, radioactive, unspecified	Air	Bq	2,69E+06	2,69E+06	1,63E+06	1,63E+06	1,64E+06	1,64E+06
Octane	Air	kg	x	x	4,89E-10	4,89E-10	x	x
Oxygen	Air	kg	x	x	8,09E-07	8,09E-07	x	x
Ozone	Air	kg	7,18E-05	7,18E-05	6,29E-05	6,29E-05	3,11E-05	3,11E-05
PAH, polycyclic aromatic hydrocarbons	Air	kg	1,20E-05	1,20E-05	1,32E-05	1,32E-05	1,28E-05	1,28E-05
Palladium	Air	kg	x	x	8,13E-20	8,13E-20	x	x
Particulates, < 10 um	Air	kg	3,89E-09	3,89E-09	2,26E-08	2,26E-08	x	x
Particulates, < 2.5 um	Air	kg	6,89E-03	7,00E-03	1,14E-02	1,14E-02	1,08E-02	1,09E-02
Particulates, > 10 um	Air	kg	1,53E-02	1,56E-02	4,87E-02	4,89E-02	5,37E-03	5,53E-03
Particulates, > 2.5 um, and < 10um	Air	kg	6,66E-03	6,82E-03	3,23E-03	3,33E-03	2,93E-03	3,03E-03
Particulates, unspecified	Air	kg	7,32E-05	7,32E-05	x	x	x	x
Pentane	Air	kg	2,91E-04	2,91E-04	2,22E-04	2,22E-04	1,55E-04	1,55E-04
Phenanthrene	Air	kg	x	x	2,91E-12	2,91E-12	x	x
Phenol	Air	kg	1,92E-06	1,92E-06	2,03E-06	2,03E-06	5,78E-07	5,78E-07
Phenol, 2,4-dichloro-	Air	kg	1,92E-08	1,92E-08	2,39E-08	2,39E-08	1,86E-11	1,86E-11

Phenol, pentachloro-	Air	kg	7,43E-08	7,43E-08	4,48E-08	4,48E-08	3,76E-08	3,76E-08
Phosphine	Air	kg	4,23E-12	4,23E-12	3,44E-12	3,44E-12	3,61E-12	3,61E-12
Phosphorus	Air	kg	4,91E-06	5,14E-06	4,82E-05	4,83E-05	5,61E-05	5,62E-05
Platinum	Air	kg	3,89E-12	3,89E-12	2,06E-12	2,06E-12	7,50E-13	7,50E-13
Plutonium-238	Air	Bq	3,82E-08	3,82E-08	2,31E-08	2,31E-08	2,33E-08	2,33E-08
Plutonium-alpha	Air	Bq	8,75E-08	8,75E-08	5,37E-08	5,37E-08	5,34E-08	5,34E-08
Polonium-210	Air	Bq	5,50E+00	5,50E+00	2,96E+00	2,96E+00	2,01E+00	2,01E+00
Polychlorinated biphenyls	Air	kg	3,74E-09	3,74E-09	2,99E-09	2,99E-09	3,67E-09	3,67E-09
Potassium	Air	kg	1,74E-04	1,97E-04	3,62E-03	3,64E-03	4,17E-03	4,18E-03
Potassium-40	Air	Bq	5,72E-01	5,72E-01	2,49E-01	2,49E-01	2,47E-01	2,47E-01
Propanal	Air	kg	1,37E-07	1,37E-07	7,32E-08	7,32E-08	1,54E-09	1,54E-09
Propane	Air	kg	3,16E-04	3,16E-04	2,63E-04	2,63E-04	2,09E-04	2,09E-04
Propene	Air	kg	5,26E-05	5,26E-05	3,97E-05	3,97E-05	6,18E-06	6,18E-06
Propionic acid	Air	kg	1,93E-06	1,93E-06	2,08E-06	2,08E-06	8,66E-07	8,66E-07
Propylamine	Air	kg	1,66E-08	1,66E-08	3,20E-09	3,20E-09	6,72E-12	6,72E-12
Propylene oxide	Air	kg	1,60E-07	1,60E-07	1,02E-07	1,02E-07	1,56E-07	1,56E-07
Protactinium-234	Air	Bq	6,14E-02	6,14E-02	2,40E-02	2,40E-02	2,34E-02	2,34E-02
Radioactive species, other beta emitters	Air	Bq	2,14E+00	2,14E+00	1,37E+00	1,37E+00	1,43E+00	1,43E+00
Radium-226	Air	Bq	5,39E+00	5,39E+00	3,01E+00	3,01E+00	1,03E+00	1,03E+00
Radium-228	Air	Bq	4,46E-01	4,46E-01	2,36E-01	2,36E-01	3,04E-01	3,04E-01
Radon-220	Air	Bq	1,82E+01	1,82E+01	8,92E+00	8,92E+00	4,10E+00	4,10E+00
Radon-222	Air	Bq	1,27E+05	5,35E+06	7,41E+04	3,13E+06	7,09E+04	3,04E+06
Rhodium	Air	kg	x	x	7,84E-20	7,84E-20	x	x
Ruthenium-103	Air	Bq	6,49E-08	6,49E-08	6,28E-08	6,28E-08	9,03E-08	9,03E-08
Scandium	Air	kg	7,16E-09	4,96E-07	4,06E-09	2,90E-07	5,27E-09	2,83E-07
Selenium	Air	kg	1,63E-06	1,70E-06	9,14E-07	9,54E-07	8,63E-07	9,01E-07

Silicon	Air	kg	7,60E-04	7,91E-04	6,11E-04	6,29E-04	2,74E-04	2,91E-04
Silicon tetrafluoride	Air	kg	1,13E-08	1,13E-08	4,07E-07	4,07E-07	5,66E-10	5,66E-10
Silver	Air	kg	2,41E-09	2,28E-08	6,95E-10	1,26E-08	6,06E-10	1,22E-08
Silver-110	Air	Bq	6,44E-07	6,44E-07	6,23E-07	6,23E-07	8,95E-07	8,95E-07
Sodium	Air	kg	8,41E-05	9,21E-05	2,68E-04	2,73E-04	2,49E-04	2,53E-04
Sodium chlorate	Air	kg	1,30E-07	1,30E-07	1,11E-08	1,11E-08	8,53E-09	8,53E-09
Sodium dichromate	Air	kg	4,14E-07	4,14E-07	5,67E-08	5,67E-08	4,64E-08	4,64E-08
Sodium formate	Air	kg	3,94E-07	3,94E-07	2,14E-09	2,14E-09	1,63E-09	1,63E-09
Sodium hydroxide	Air	kg	4,91E-08	4,91E-08	3,99E-08	3,99E-08	4,19E-08	4,19E-08
Strontium	Air	kg	2,33E-06	2,82E-06	1,33E-06	1,62E-06	1,58E-06	1,86E-06
Styrene	Air	kg	4,28E-06	4,28E-06	3,77E-08	3,77E-08	6,28E-08	6,28E-08
Sulfate	Air	kg	7,13E-03	7,25E-03	3,95E-03	4,02E-03	1,07E-04	1,78E-04
Sulfur dioxide	Air	kg	9,81E-02	9,81E-02	5,36E-02	5,36E-02	3,59E-02	3,59E-02
Sulfur hexafluoride	Air	kg	1,80E-06	1,80E-06	1,53E-06	1,53E-06	9,51E-07	9,51E-07
Sulfur trioxide	Air	kg	5,00E-07	5,00E-07	3,54E-07	3,54E-07	1,13E-09	1,13E-09
Sulfuric acid	Air	kg	1,03E-08	1,03E-08	8,37E-09	8,37E-09	8,77E-09	8,77E-09
t-Butyl methyl ether	Air	kg	3,64E-08	3,64E-08	1,90E-08	1,90E-08	9,94E-07	9,94E-07
t-Butylamine	Air	kg	7,63E-09	7,63E-09	4,37E-08	4,37E-08	1,19E-10	1,19E-10
Tellurium	Air	kg	x	x	1,69E-14	1,69E-14	x	x
Terpenes	Air	kg	1,82E-07	1,82E-07	2,10E-07	2,10E-07	2,45E-09	2,45E-09
Thallium	Air	kg	1,31E-08	1,31E-08	1,14E-08	1,14E-08	1,02E-08	1,02E-08
Thorium	Air	kg	9,19E-09	9,19E-09	5,12E-09	5,12E-09	6,95E-09	6,95E-09
Thorium-228	Air	Bq	1,14E-01	1,14E-01	5,74E-02	5,74E-02	6,30E-02	6,30E-02
Thorium-230	Air	Bq	3,31E+00	3,31E+00	1,86E+00	1,86E+00	8,69E-02	8,69E-02
Thorium-232	Air	Bq	1,72E-01	1,72E-01	9,48E-02	9,48E-02	8,12E-02	8,12E-02
Thorium-234	Air	Bq	6,14E-02	6,14E-02	2,40E-02	2,40E-02	2,34E-02	2,34E-02

Tin	Air	kg	6,32E-07	6,60E-07	4,76E-07	4,92E-07	4,81E-07	4,97E-07
Tin oxide	Air	kg	x	x	2,20E-17	2,20E-17	x	x
Titanium	Air	kg	1,42E-04	1,51E-04	1,36E-04	1,42E-04	1,40E-06	6,47E-06
Toluene	Air	kg	6,96E-05	6,96E-05	9,16E-05	9,16E-05	9,47E-05	9,47E-05
Toluene, 2-chloro-	Air	kg	4,60E-08	4,60E-08	3,09E-08	3,09E-08	5,97E-11	5,97E-11
Trimethylamine	Air	kg	6,63E-09	6,63E-09	6,89E-09	6,89E-09	7,59E-12	7,59E-12
Tungsten	Air	kg	1,21E-10	5,53E-08	7,07E-11	3,23E-08	6,88E-11	3,15E-08
Uranium	Air	kg	1,18E-08	1,18E-08	6,48E-09	6,48E-09	8,88E-09	8,88E-09
Uranium-234	Air	Bq	3,65E+00	3,65E+00	2,05E+00	2,05E+00	2,70E-01	2,70E-01
Uranium-235	Air	Bq	2,28E-02	2,28E-02	1,34E-02	1,34E-02	1,30E-02	1,30E-02
Uranium-238	Air	Bq	3,99E+00	3,99E+00	2,24E+00	2,24E+00	4,78E-01	4,78E-01
Uranium alpha	Air	Bq	2,20E+00	2,20E+00	1,29E+00	1,29E+00	1,25E+00	1,25E+00
Used air	Air	kg	x	x	1,97E-01	1,97E-01	x	x
Vanadium	Air	kg	4,27E-05	4,36E-05	3,17E-05	3,22E-05	4,50E-05	4,55E-05
VOC, volatile organic compounds	Air	kg	3,66E-04	3,66E-04	1,43E-08	1,43E-08	x	x
Water	Air	kg	3,69E-01	3,69E-01	4,05E-01	4,05E-01	3,68E-01	3,68E-01
Xenon-131m	Air	Bq	1,05E+01	1,05E+01	7,70E+00	7,70E+00	9,11E+00	9,11E+00
Xenon-133	Air	Bq	3,40E+02	3,40E+02	2,60E+02	2,60E+02	3,19E+02	3,19E+02
Xenon-133m	Air	Bq	1,28E+00	1,28E+00	7,26E-01	7,26E-01	6,31E-01	6,31E-01
Xenon-135	Air	Bq	1,39E+02	1,39E+02	1,06E+02	1,06E+02	1,29E+02	1,29E+02
Xenon-135m	Air	Bq	8,27E+01	8,27E+01	6,42E+01	6,42E+01	7,94E+01	7,94E+01
Xenon-137	Air	Bq	1,77E+00	1,77E+00	1,60E+00	1,60E+00	2,22E+00	2,22E+00
Xenon-138	Air	Bq	1,50E+01	1,50E+01	1,29E+01	1,29E+01	1,72E+01	1,72E+01
Xylene	Air	kg	8,57E-05	8,57E-05	4,66E-05	4,66E-05	3,02E-05	3,02E-05
Zinc	Air	kg	3,25E-04	3,26E-04	3,53E-04	3,53E-04	3,62E-04	3,63E-04
Zinc-65	Air	Bq	1,24E-05	1,24E-05	1,20E-05	1,20E-05	1,73E-05	1,73E-05

Zinc oxide	Air	kg	x	x	4,40E-17	4,40E-17	x	x
Zirconium	Air	kg	6,04E-09	6,04E-09	5,03E-09	5,03E-09	5,65E-09	5,65E-09
Zirconium-95	Air	Bq	1,22E-05	1,22E-05	1,18E-05	1,18E-05	1,69E-05	1,69E-05
1-Butanol	Water	kg	5,51E-08	5,51E-08	5,66E-08	5,66E-08	2,72E-08	2,72E-08
1-Pentanol	Water	kg	6,34E-08	6,34E-08	1,33E-08	1,33E-08	2,78E-11	2,78E-11
1-Pentene	Water	kg	4,79E-08	4,79E-08	1,00E-08	1,00E-08	2,10E-11	2,10E-11
1-Propanol	Water	kg	7,42E-08	7,42E-08	3,45E-08	3,45E-08	1,63E-10	1,63E-10
1,4-Butanediol	Water	kg	1,13E-08	1,13E-08	1,75E-08	1,75E-08	4,91E-11	4,91E-11
2-Aminopropanol	Water	kg	2,95E-08	2,95E-08	1,40E-08	1,40E-08	2,59E-11	2,59E-11
2-Methyl-1-propanol	Water	kg	1,32E-07	1,32E-07	4,29E-08	4,29E-08	7,30E-11	7,30E-11
2-Methyl-2-butene	Water	kg	1,06E-11	1,06E-11	2,22E-12	2,22E-12	4,67E-15	4,67E-15
2-Propanol	Water	kg	2,57E-06	2,57E-06	1,91E-07	1,91E-07	2,57E-10	2,57E-10
4-Methyl-2-pentanone	Water	kg	1,22E-09	1,22E-09	1,55E-10	1,55E-10	1,55E-10	1,55E-10
Acenaphthene	Water	kg	7,55E-10	7,55E-10	4,34E-10	4,34E-10	4,52E-10	4,52E-10
Acenaphthylene	Water	kg	4,72E-11	4,72E-11	2,83E-11	2,83E-11	2,83E-11	2,83E-11
Acetaldehyde	Water	kg	5,59E-07	5,59E-07	5,58E-05	5,58E-05	5,68E-08	5,68E-08
Acetic acid	Water	kg	1,55E-04	1,55E-04	9,20E-04	9,20E-04	3,78E-07	3,78E-07
Acetone	Water	kg	4,95E-07	4,95E-07	3,28E-08	3,28E-08	9,04E-09	9,04E-09
Acetonitrile	Water	kg	-1,19E-08	-1,19E-08	1,16E-08	1,16E-08	8,78E-11	8,78E-11
Acetyl chloride	Water	kg	4,98E-08	4,98E-08	1,04E-08	1,04E-08	2,19E-11	2,19E-11
Acidity, unspecified	Water	kg	8,69E-06	8,69E-06	3,93E-06	3,93E-06	1,08E-07	1,08E-07
Acids, unspecified	Water	kg	x	x	3,43E-02	3,43E-02	x	x
Acrylate, ion	Water	kg	1,16E-08	1,16E-08	9,42E-09	9,42E-09	9,88E-09	9,88E-09
Acrylonitrile	Water	kg	x	x	7,27E-14	7,27E-14	x	x
Actinides, radioactive, unspecified	Water	Bq	4,55E-01	4,55E-01	2,75E-01	2,75E-01	2,77E-01	2,77E-01
Aluminium	Water	kg	2,02E-04	5,14E-02	1,24E-04	2,86E-02	8,39E-05	2,76E-02

Americium-241	Water	Bq	x	x	7,64E-06	7,64E-06	x	x
Ammonia	Water	kg	x	x	1,14E-06	1,14E-06	x	x
Ammonium, ion	Water	kg	7,76E-04	7,80E-04	6,04E-04	6,07E-04	4,64E-04	4,66E-04
Aniline	Water	kg	1,38E-07	1,38E-07	8,77E-08	8,77E-08	2,11E-10	2,11E-10
Anthracene	Water	kg	x	x	9,87E-13	9,87E-13	x	x
Antimony	Water	kg	2,31E-04	6,74E-04	2,23E-04	6,45E-04	2,34E-06	2,03E-05
Antimony-122	Water	Bq	1,86E-04	1,86E-04	1,80E-04	1,80E-04	2,58E-04	2,58E-04
Antimony-124	Water	Bq	7,72E-02	7,72E-02	5,07E-02	5,07E-02	5,16E-02	5,16E-02
Antimony-125	Water	Bq	7,33E-02	7,33E-02	5,08E-02	5,08E-02	4,73E-02	4,73E-02
AOX, Adsorbable Organic Halogen as Cl	Water	kg	4,75E-07	4,75E-07	4,76E-07	4,76E-07	1,19E-06	1,19E-06
Arsenic, ion	Water	kg	8,09E-05	1,62E-04	3,59E-05	9,36E-05	1,43E-05	6,61E-05
Barite	Water	kg	8,05E-04	8,05E-04	7,15E-04	7,15E-04	1,99E-04	1,99E-04
Barium	Water	kg	1,90E-04	8,46E-04	7,13E-05	4,76E-04	7,43E-05	2,82E-04
Barium-140	Water	Bq	8,14E-04	8,14E-04	7,88E-04	7,88E-04	1,13E-03	1,13E-03
Benzene	Water	kg	5,23E-05	5,23E-05	2,26E-05	2,26E-05	6,92E-06	6,92E-06
Benzene, 1,2-dichloro-	Water	kg	6,03E-08	6,03E-08	3,27E-07	3,27E-07	1,34E-08	1,34E-08
Benzene, chloro-	Water	kg	1,09E-06	1,19E-06	4,32E-06	4,37E-06	2,62E-07	2,62E-07
Benzene, ethyl-	Water	kg	2,94E-06	2,94E-06	1,66E-06	1,66E-06	1,75E-06	1,75E-06
Benzo(a)anthracene	Water	kg	x	x	8,03E-13	8,03E-13	x	x
Benzo(b)fluoranthene	Water	kg	x	x	8,90E-13	8,90E-13	x	x
Benzyl alcohol	Water	kg	x	x	x	x	x	x
Beryllium	Water	kg	5,36E-08	2,11E-05	3,16E-08	1,31E-05	2,56E-08	1,03E-05
BOD5, Biological Oxygen Demand	Water	kg	5,09E-01	5,66E-01	4,18E-01	4,64E-01	3,15E-02	7,75E-02
Borate	Water	kg	5,42E-06	5,42E-06	1,80E-06	1,80E-06	3,15E-09	3,15E-09
Boron	Water	kg	1,06E-04	1,30E-03	8,46E-05	1,01E-03	8,43E-05	1,02E-03
Bromate	Water	kg	5,37E-05	5,37E-05	3,14E-05	3,14E-05	4,16E-06	4,16E-06

Bromide	Water	kg	2,97E-04	2,97E-04	1,12E-04	1,12E-04	1,88E-07	1,88E-07
Bromine	Water	kg	4,03E-04	4,58E-04	4,91E-04	5,42E-04	7,27E-05	7,58E-05
Butene	Water	kg	2,06E-07	2,06E-07	3,92E-06	3,92E-06	1,37E-07	1,37E-07
Butyl acetate	Water	kg	4,43E-08	4,43E-08	3,54E-08	3,54E-08	3,54E-08	3,54E-08
Butyrolactone	Water	kg	7,06E-11	7,06E-11	5,73E-11	5,73E-11	6,00E-11	6,00E-11
Cadmium	Water	kg	x	x	1,05E-09	1,05E-09	x	x
Cadmium, ion	Water	kg	1,97E-05	5,12E-05	7,62E-06	3,26E-05	6,85E-07	2,50E-05
Calcium, ion	Water	kg	7,64E-01	1,14E+00	2,90E-01	5,60E-01	8,34E-03	1,63E-01
Carbon-14	Water	Bq	x	x	3,87E-04	3,87E-04	x	x
Carbon disulfide	Water	kg	1,11E-06	1,11E-06	2,88E-08	2,88E-08	1,21E-09	1,21E-09
Carbonate	Water	kg	2,40E-04	2,40E-04	5,50E-05	5,50E-05	5,96E-06	5,96E-06
Carboxylic acids, unspecified	Water	kg	5,23E-04	5,23E-04	3,02E-04	3,02E-04	3,11E-04	3,11E-04
Cerium-141	Water	Bq	3,26E-04	3,26E-04	3,15E-04	3,15E-04	4,53E-04	4,53E-04
Cerium-144	Water	Bq	9,91E-05	9,91E-05	9,59E-05	9,59E-05	1,38E-04	1,38E-04
Cesium	Water	kg	1,21E-07	1,21E-07	6,92E-08	6,92E-08	7,27E-08	7,27E-08
Cesium-134	Water	Bq	6,65E-02	6,65E-02	4,46E-02	4,46E-02	3,76E-02	3,76E-02
Cesium-136	Water	Bq	5,78E-05	5,78E-05	5,59E-05	5,59E-05	8,03E-05	8,03E-05
Cesium-137	Water	Bq	5,23E+01	5,23E+01	3,17E+01	3,17E+01	3,20E+01	3,20E+01
Chloramine	Water	kg	9,99E-07	9,99E-07	3,06E-07	3,06E-07	5,65E-10	5,65E-10
Chlorate	Water	kg	4,19E-04	4,19E-04	2,42E-04	2,42E-04	3,22E-05	3,22E-05
Chloride	Water	kg	3,30E-01	4,64E-01	1,85E-01	2,55E-01	6,07E-02	7,11E-02
Chlorinated solvents, unspecified	Water	kg	5,16E-07	5,16E-07	3,54E-07	3,54E-07	1,94E-08	1,94E-08
Chlorine	Water	kg	4,11E-06	4,11E-06	3,08E-06	3,08E-06	6,45E-07	6,45E-07
Chloroacetic acid	Water	kg	8,67E-05	8,67E-05	2,09E-06	2,09E-06	1,77E-06	1,77E-06
Chloroacetyl chloride	Water	kg	3,94E-08	3,94E-08	1,87E-08	1,87E-08	3,45E-11	3,45E-11
Chloroform	Water	kg	2,46E-08	2,46E-08	1,69E-08	1,69E-08	5,82E-10	5,82E-10

Chlorosulfonic acid	Water	kg	-4,31E-08	-4,31E-08	4,21E-08	4,21E-08	3,19E-10	3,19E-10
Chromium	Water	kg	x	x	3,34E-10	3,34E-10	x	x
Chromium-51	Water	Bq	9,65E-02	9,65E-02	8,32E-02	8,32E-02	1,01E-01	1,01E-01
Chromium VI	Water	kg	5,15E-05	2,78E-04	2,55E-05	1,42E-04	1,98E-05	1,11E-04
Chromium, ion	Water	kg	2,15E-05	2,15E-05	7,16E-06	7,16E-06	6,28E-07	6,28E-07
Chrysene	Water	kg	x	x	4,53E-12	4,53E-12	x	x
Cobalt	Water	kg	4,80E-05	4,45E-04	7,71E-06	2,93E-04	9,48E-07	1,67E-04
Cobalt-57	Water	Bq	1,83E-03	1,83E-03	1,77E-03	1,77E-03	2,55E-03	2,55E-03
Cobalt-58	Water	Bq	6,68E-01	6,68E-01	5,12E-01	5,12E-01	5,78E-01	5,78E-01
Cobalt-60	Water	Bq	5,30E-01	5,30E-01	4,17E-01	4,17E-01	4,77E-01	4,77E-01
COD, Chemical Oxygen Demand	Water	kg	5,78E-01	7,44E-01	4,73E-01	6,14E-01	2,15E-02	1,62E-01
Copper	Water	kg	x	x	4,83E-09	4,83E-09	x	x
Copper, ion	Water	kg	2,91E-05	1,55E-03	1,01E-05	4,19E-04	2,58E-06	1,36E-03
Cresol	Water	kg	x	x	2,33E-14	2,33E-14	x	x
Cumene	Water	kg	4,14E-05	4,14E-05	9,61E-06	9,61E-06	1,78E-06	1,78E-06
Curium alpha	Water	Bq	x	x	1,01E-05	1,01E-05	x	x
Cyanide	Water	kg	1,46E-05	1,46E-05	8,72E-06	8,72E-06	8,75E-06	8,75E-06
Decane	Water	kg	x	x	8,09E-09	8,09E-09	x	x
Dichromate	Water	kg	1,53E-06	1,53E-06	2,10E-07	2,10E-07	1,72E-07	1,72E-07
Diethylamine	Water	kg	8,02E-08	8,02E-08	4,18E-08	4,18E-08	1,04E-10	1,04E-10
Dimethylamine	Water	kg	4,91E-08	4,91E-08	2,46E-07	2,46E-07	8,64E-10	8,64E-10
Dioxin, 2,3,7,8 Tetrachlorodibenzo-p-	Water	kg	x	x	2,72E-24	2,72E-24	x	x
Dipropylamine	Water	kg	3,44E-08	3,44E-08	1,88E-08	1,88E-08	5,18E-11	5,18E-11
DOC, Dissolved Organic Carbon	Water	kg	8,61E-03	7,47E-02	5,51E-03	6,13E-02	1,73E-02	7,31E-02
Ethane, 1,2-dichloro-	Water	kg	7,89E-06	7,89E-06	4,40E-06	4,40E-06	1,50E-08	1,50E-08
Ethanol	Water	kg	5,92E-05	5,92E-05	6,21E-05	6,21E-05	8,52E-08	8,52E-08

Ethene	Water	kg	2,58E-04	2,58E-04	2,37E-04	2,37E-04	6,14E-07	6,14E-07
Ethene, chloro-	Water	kg	6,31E-09	6,31E-09	3,02E-09	3,02E-09	2,23E-09	2,23E-09
Ethyl acetate	Water	kg	5,53E-08	5,53E-08	6,96E-08	6,96E-08	8,85E-11	8,85E-11
Ethylamine	Water	kg	1,03E-06	1,03E-06	2,37E-07	2,37E-07	3,30E-10	3,30E-10
Ethylene diamine	Water	kg	4,38E-07	4,38E-07	1,14E-08	1,14E-08	4,94E-10	4,94E-10
Ethylene oxide	Water	kg	1,62E-06	1,62E-06	1,94E-08	1,94E-08	9,82E-09	9,82E-09
Fluoranthene	Water	kg	x	x	9,46E-13	9,46E-13	x	x
Fluoride	Water	kg	1,03E-02	2,00E-02	3,75E-03	1,50E-02	4,47E-04	8,98E-03
Fluorine	Water	kg	x	x	2,39E-11	2,39E-11	x	x
Fluosilicic acid	Water	kg	6,56E-06	6,56E-06	6,48E-06	6,48E-06	6,48E-06	6,48E-06
Formaldehyde	Water	kg	1,08E-05	1,08E-05	8,70E-06	8,70E-06	1,02E-04	1,02E-04
Formamide	Water	kg	1,16E-07	1,16E-07	2,42E-08	2,42E-08	5,09E-11	5,09E-11
Formate	Water	kg	2,35E-06	2,35E-06	1,35E-05	1,35E-05	3,66E-08	3,66E-08
Formic acid	Water	kg	3,37E-08	3,37E-08	7,04E-09	7,04E-09	1,48E-11	1,48E-11
Glutaraldehyde	Water	kg	9,94E-08	9,94E-08	8,82E-08	8,82E-08	2,46E-08	2,46E-08
Heat, waste	Water	MJ	4,25E+01	4,26E+01	3,06E+01	3,07E+01	3,68E+01	3,68E+01
Hexane	Water	kg	x	x	2,56E-15	2,56E-15	x	x
Hydrocarbons, aliphatic, alkanes, unspecified	Water	kg	1,58E-05	1,58E-05	8,99E-06	8,99E-06	9,45E-06	9,45E-06
Hydrocarbons, aliphatic, unsaturated	Water	kg	1,44E-06	1,44E-06	8,71E-07	8,71E-07	8,73E-07	8,73E-07
Hydrocarbons, aromatic	Water	kg	6,55E-05	6,55E-05	3,77E-05	3,77E-05	3,87E-05	3,87E-05
Hydrocarbons, unspecified	Water	kg	8,31E-05	8,31E-05	3,26E-05	3,26E-05	5,78E-06	5,78E-06
Hydrogen-3, Tritium	Water	Bq	1,20E+05	1,20E+05	7,27E+04	7,27E+04	7,30E+04	7,30E+04
Hydrogen chloride	Water	kg	x	x	1,50E-11	1,50E-11	x	x
Hydrogen fluoride	Water	kg	x	x	5,17E-13	5,17E-13	x	x
Hydrogen peroxide	Water	kg	2,89E-07	2,89E-07	1,13E-07	1,13E-07	1,01E-07	1,01E-07
Hydrogen sulfide	Water	kg	3,63E-07	3,02E-05	2,87E-07	4,72E-05	3,10E-07	2,81E-05

Hydroxide	Water	kg	5,04E-07	5,04E-07	3,34E-07	3,34E-07	3,13E-07	3,13E-07
Hypochlorite	Water	kg	6,70E-06	6,70E-06	3,62E-06	3,62E-06	2,94E-06	2,94E-06
Iodide	Water	kg	4,48E-05	4,48E-05	2,78E-05	2,78E-05	7,69E-06	7,69E-06
Iodine-129	Water	Bq	x	x	1,11E-03	1,11E-03	x	x
Iodine-131	Water	Bq	1,43E-02	1,43E-02	9,78E-03	9,78E-03	9,73E-03	9,73E-03
Iodine-133	Water	Bq	5,11E-04	5,11E-04	4,95E-04	4,95E-04	7,11E-04	7,11E-04
Iron	Water	kg	x	x	9,28E-07	9,28E-07	x	x
Iron-59	Water	Bq	1,41E-04	1,41E-04	1,36E-04	1,36E-04	1,95E-04	1,95E-04
Iron, ion	Water	kg	6,11E-03	5,48E-02	3,21E-03	2,42E-02	3,32E-03	3,80E-02
Isopropylamine	Water	kg	1,11E-06	1,11E-06	8,26E-08	8,26E-08	1,11E-10	1,11E-10
Lactic acid	Water	kg	2,70E-08	2,70E-08	1,47E-08	1,47E-08	4,06E-11	4,06E-11
Lanthanum-140	Water	Bq	8,67E-04	8,67E-04	8,39E-04	8,39E-04	1,21E-03	1,21E-03
Lead	Water	kg	2,45E-05	1,38E-04	1,31E-05	7,96E-05	8,13E-06	1,14E-04
Lead-210	Water	Bq	1,94E+03	1,94E+03	7,26E+02	7,26E+02	2,91E-01	2,91E-01
Lithium, ion	Water	kg	3,15E-04	3,15E-04	4,02E-05	4,02E-05	3,98E-05	3,98E-05
m-Xylene	Water	kg	1,24E-07	1,24E-07	2,07E-08	2,07E-08	1,17E-09	1,17E-09
Magnesium	Water	kg	3,07E-03	1,30E-01	1,64E-03	7,74E-02	9,99E-04	6,89E-02
Manganese	Water	kg	1,07E-04	1,10E-02	7,21E-05	7,74E-03	3,27E-05	7,35E-03
Manganese-54	Water	Bq	4,14E-02	4,14E-02	3,21E-02	3,21E-02	3,51E-02	3,51E-02
Mercury	Water	kg	2,86E-06	5,91E-06	9,81E-07	2,62E-06	8,77E-08	1,62E-06
Methane, dibromo-	Water	kg	x	x	4,40E-16	4,40E-16	x	x
Methane, dichloro-, HCC-30	Water	kg	1,77E-06	1,77E-06	1,23E-06	1,23E-06	1,18E-06	1,18E-06
Methane, monochloro-, R-40	Water	kg	x	x	4,72E-11	4,72E-11	x	x
Methanol	Water	kg	7,70E-06	7,70E-06	1,28E-05	1,28E-05	2,92E-05	2,92E-05
Methyl acetate	Water	kg	5,99E-09	5,99E-09	7,85E-09	7,85E-09	1,03E-11	1,03E-11
Methyl acrylate	Water	kg	1,08E-07	1,08E-07	8,82E-08	8,82E-08	9,25E-08	9,25E-08
Methyl amine	Water	kg	-3,57E-08	-3,57E-08	1,66E-08	1,66E-08	1,07E-10	1,07E-10

Methyl formate	Water	kg	5,11E-09	5,11E-09	1,07E-09	1,07E-09	9,57E-12	9,57E-12
Molybdenum	Water	kg	1,45E-05	8,23E-05	7,94E-06	5,18E-05	9,33E-06	5,50E-05
Molybdenum-99	Water	Bq	2,99E-04	2,99E-04	2,89E-04	2,89E-04	4,16E-04	4,16E-04
Naphthalene	Water	kg	x	x	1,13E-10	1,13E-10	x	x
Nickel	Water	kg	x	x	3,23E-09	3,23E-09	x	x
Nickel, ion	Water	kg	5,86E-05	1,22E-03	1,70E-05	6,34E-04	2,29E-06	6,13E-04
Niobium-95	Water	Bq	6,83E-03	6,83E-03	5,36E-03	5,36E-03	3,89E-03	3,89E-03
Nitrate	Water	kg	1,96E-01	2,08E-01	5,17E-02	5,81E-02	1,77E-03	6,69E-03
Nitrite	Water	kg	5,60E-06	5,84E-06	4,01E-06	4,19E-06	3,37E-06	3,49E-06
Nitrobenzene	Water	kg	2,79E-07	2,79E-07	2,33E-07	2,33E-07	5,19E-10	5,19E-10
Nitrogen	Water	kg	3,29E-04	3,29E-04	2,01E-04	2,01E-04	1,78E-04	1,78E-04
Nitrogen, organic bound	Water	kg	9,49E-05	1,02E-04	8,51E-05	9,04E-05	8,50E-05	8,87E-05
o-Xylene	Water	kg	6,42E-09	6,42E-09	8,15E-10	8,15E-10	8,18E-10	8,18E-10
Oils, unspecified	Water	kg	7,63E-03	7,63E-03	4,53E-03	4,53E-03	4,61E-03	4,61E-03
PAH, polycyclic aromatic hydrocarbons	Water	kg	7,86E-07	7,86E-07	4,80E-07	4,80E-07	5,15E-07	5,15E-07
Particulates, < 10 um	Water	kg	x	x	9,08E-13	9,08E-13	x	x
Particulates, > 10 um	Water	kg	x	x	8,79E-06	8,79E-06	x	x
Phenol	Water	kg	1,73E-05	1,73E-05	9,55E-06	9,55E-06	1,72E-05	1,72E-05
Phosphate	Water	kg	3,99E-02	7,45E-02	1,71E-02	3,63E-02	3,28E-03	1,93E-02
Phosphorus	Water	kg	1,78E-03	1,78E-03	1,02E-03	1,02E-03	1,31E-05	1,31E-05
Plutonium-alpha	Water	Bq	x	x	3,04E-05	3,04E-05	x	x
Polonium-210	Water	Bq	2,96E+03	2,96E+03	1,11E+03	1,11E+03	4,58E-01	4,58E-01
Potassium	Water	kg	x	x	9,51E-10	9,51E-10	x	x
Potassium-40	Water	Bq	2,36E+02	2,36E+02	8,82E+01	8,82E+01	-3,19E-02	-3,19E-02
Potassium, ion	Water	kg	2,77E-03	7,77E-02	1,61E-03	4,78E-02	1,33E-03	4,02E-02
Propanal	Water	kg	9,58E-08	9,58E-08	1,92E-08	1,92E-08	4,03E-11	4,03E-11

Propane, 1,2-dichloro-	Water	kg	x	x	9,95E-19	9,95E-19	x	x
Propene	Water	kg	2,08E-04	2,08E-04	2,08E-04	2,08E-04	1,53E-06	1,53E-06
Propionic acid	Water	kg	1,03E-07	1,03E-07	8,81E-08	8,81E-08	1,05E-10	1,05E-10
Propylamine	Water	kg	3,98E-08	3,98E-08	7,68E-09	7,68E-09	1,61E-11	1,61E-11
Propylene oxide	Water	kg	3,85E-07	3,85E-07	2,45E-07	2,45E-07	3,75E-07	3,75E-07
Protactinium-234	Water	Bq	7,46E-01	7,46E-01	4,36E-01	4,36E-01	4,25E-01	4,25E-01
Radioactive species, alpha emitters	Water	Bq	1,10E+00	1,10E+00	8,16E-01	8,16E-01	8,24E-04	8,24E-04
Radioactive species, Nuclides, unspecified	Water	Bq	2,74E+02	2,74E+02	1,65E+02	1,65E+02	1,66E+02	1,66E+02
Radium-224	Water	Bq	6,07E+00	6,07E+00	3,46E+00	3,46E+00	3,64E+00	3,64E+00
Radium-226	Water	Bq	2,66E+03	2,66E+03	1,09E+03	1,09E+03	2,70E+02	2,70E+02
Radium-228	Water	Bq	1,27E+01	1,27E+01	6,99E+00	6,99E+00	7,34E+00	7,34E+00
Rubidium	Water	kg	1,21E-06	1,21E-06	6,92E-07	6,92E-07	7,27E-07	7,27E-07
Ruthenium-103	Water	Bq	6,31E-05	6,31E-05	6,10E-05	6,10E-05	8,77E-05	8,77E-05
Ruthenium-106	Water	Bq	x	x	7,64E-06	7,64E-06	x	x
Scandium	Water	kg	8,85E-07	3,30E-05	4,30E-07	1,99E-05	4,53E-07	1,83E-05
Selenium	Water	kg	5,70E-06	6,21E-05	3,81E-06	4,08E-05	1,17E-06	3,00E-05
Silicon	Water	kg	1,14E-03	3,31E-01	5,13E-04	1,55E-01	4,85E-04	1,44E-01
Silver-110	Water	Bq	4,87E-01	4,87E-01	3,78E-01	3,78E-01	4,59E-01	4,59E-01
Silver, ion	Water	kg	7,45E-07	2,53E-06	1,52E-07	1,53E-06	1,51E-07	1,51E-06
Sodium-24	Water	Bq	2,26E-03	2,26E-03	2,19E-03	2,19E-03	3,15E-03	3,15E-03
Sodium formate	Water	kg	9,47E-07	9,47E-07	5,14E-09	5,14E-09	3,92E-09	3,92E-09
Sodium, ion	Water	kg	1,04E-01	2,92E-01	5,24E-02	1,49E-01	3,13E-02	8,58E-02
Soil loss by erosion into water	Water	kg	6,16E+00	6,16E+00	6,39E+00	6,39E+00	1,02E+01	1,02E+01
Solids, inorganic	Water	kg	1,64E-02	1,64E-02	9,14E-03	9,14E-03	8,96E-03	8,96E-03
Solved solids	Water	kg	1,62E-02	1,62E-02	3,58E-03	3,58E-03	2,34E-03	2,34E-03
Strontium	Water	kg	2,77E-04	4,42E-03	1,50E-04	2,58E-03	1,49E-04	1,96E-03

Strontium-89	Water	Bq	9,62E-03	9,62E-03	8,31E-03	8,31E-03	8,92E-03	8,92E-03
Strontium-90	Water	Bq	3,55E+02	3,55E+02	1,79E+02	1,79E+02	1,25E+02	1,25E+02
Sulfate	Water	kg	1,62E+00	2,58E+00	6,13E-01	1,19E+00	4,88E-02	5,06E-01
Sulfide	Water	kg	-2,39E-05	-2,39E-05	7,65E-06	7,65E-06	3,46E-07	3,46E-07
Sulfite	Water	kg	1,85E-05	1,85E-05	9,93E-06	9,93E-06	7,15E-06	7,15E-06
Sulfur	Water	kg	8,54E-04	8,54E-04	4,42E-04	4,42E-04	1,45E-05	1,45E-05
Suspended solids, unspecified	Water	kg	6,42E-03	6,42E-03	4,26E-03	4,26E-03	1,11E-03	1,11E-03
Suspended substances, unspecified	Water	kg	3,89E-09	3,89E-09	x	x	x	x
t-Butyl methyl ether	Water	kg	2,86E-07	2,86E-07	1,66E-07	1,66E-07	1,60E-07	1,60E-07
t-Butylamine	Water	kg	1,83E-08	1,83E-08	1,05E-07	1,05E-07	2,85E-10	2,85E-10
Technetium-99m	Water	Bq	6,91E-03	6,91E-03	6,67E-03	6,67E-03	9,56E-03	9,56E-03
Tellurium-123m	Water	Bq	8,45E-03	8,45E-03	5,50E-03	5,50E-03	5,06E-03	5,06E-03
Tellurium-132	Water	Bq	1,73E-05	1,73E-05	1,68E-05	1,68E-05	2,41E-05	2,41E-05
Thallium	Water	kg	4,18E-08	4,44E-06	2,37E-08	3,35E-06	1,89E-08	2,37E-06
Thorium-228	Water	Bq	4,81E+01	4,81E+01	2,27E+01	2,27E+01	1,45E+01	1,45E+01
Thorium-230	Water	Bq	1,02E+02	1,02E+02	5,95E+01	5,95E+01	5,79E+01	5,79E+01
Thorium-232	Water	Bq	1,86E-01	1,86E-01	9,26E-02	9,26E-02	-1,36E-02	-1,36E-02
Thorium-234	Water	Bq	7,46E-01	7,46E-01	4,36E-01	4,36E-01	4,25E-01	4,25E-01
Tin	Water	kg	x	x	4,06E-14	4,06E-14	x	x
Tin, ion	Water	kg	1,40E-07	8,38E-05	7,47E-08	2,85E-05	4,40E-08	7,33E-05
Titanium	Water	kg	x	x	5,97E-11	5,97E-11	x	x
Titanium, ion	Water	kg	2,07E-05	5,40E-02	1,11E-05	4,69E-02	3,53E-06	2,15E-03
TOC, Total Organic Carbon	Water	kg	8,83E-03	7,49E-02	5,60E-03	6,14E-02	1,82E-02	7,40E-02
Toluene	Water	kg	1,82E-05	1,82E-05	9,11E-06	9,11E-06	9,13E-06	9,13E-06
Toluene, 2-chloro-	Water	kg	8,67E-08	8,67E-08	4,67E-08	4,67E-08	1,05E-10	1,05E-10
Tributyltin compounds	Water	kg	6,14E-07	6,14E-07	6,50E-07	6,50E-07	7,68E-08	7,68E-08

Triethylene glycol	Water	kg	1,46E-06	1,46E-06	1,72E-06	1,72E-06	-9,03E-07	-9,03E-07
Trimethylamine	Water	kg	1,38E-06	1,38E-06	1,65E-08	1,65E-08	1,82E-11	1,82E-11
Tungsten	Water	kg	1,55E-06	3,79E-05	9,20E-07	3,03E-05	9,28E-07	3,03E-05
Uranium-234	Water	Bq	8,95E-01	8,95E-01	5,23E-01	5,23E-01	5,10E-01	5,10E-01
Uranium-235	Water	Bq	1,48E+00	1,48E+00	8,64E-01	8,64E-01	8,41E-01	8,41E-01
Uranium-238	Water	Bq	9,99E+02	9,99E+02	3,74E+02	3,74E+02	1,43E+00	1,43E+00
Uranium alpha	Water	Bq	4,30E+01	4,30E+01	2,51E+01	2,51E+01	2,45E+01	2,45E+01
Urea	Water	kg	1,20E-07	1,20E-07	3,08E-08	3,08E-08	5,59E-11	5,59E-11
Vanadium	Water	kg	x	x	1,29E-10	1,29E-10	x	x
Vanadium, ion	Water	kg	6,38E-06	1,33E-03	4,93E-06	1,09E-03	1,22E-06	1,47E-04
VOC, volatile organic compounds, unspecified origin	Water	kg	4,44E-05	4,44E-05	2,53E-05	2,53E-05	2,65E-05	2,65E-05
Water	Water	kg	x	x	3,44E+01	3,44E+01	x	x
Xylene	Water	kg	1,26E-05	1,26E-05	7,10E-06	7,10E-06	7,44E-06	7,44E-06
Zinc	Water	kg	x	x	1,38E-09	1,38E-09	x	x
Zinc-65	Water	Bq	3,07E-02	3,07E-02	2,97E-02	2,97E-02	4,26E-02	4,26E-02
Zinc, ion	Water	kg	1,51E-04	2,58E-03	7,86E-05	1,85E-03	3,53E-05	1,73E-03
Zirconium-95	Water	Bq	3,55E-04	3,55E-04	3,44E-04	3,44E-04	4,94E-04	4,94E-04
Calcium fluoride waste	Afval	kg	x	x	1,35E-09	1,35E-09	x	x
Construction waste	Afval	kg	x	x	9,93E-06	9,93E-06	x	x
Mineral waste, from mining	Afval	kg	x	x	7,95E-03	7,95E-03	x	x
Radioactive tailings	Afval	kg	x	x	2,37E-06	2,37E-06	x	x
Rejects	Afval	kg	x	x	6,48E-06	6,48E-06	x	x
Slag (uranium conversion)	Afval	kg	x	x	8,97E-09	8,97E-09	x	x
Slags	Afval	kg	x	x	4,21E-07	4,21E-07	x	x
Waste returned to mine	Afval	kg	x	x	7,04E-07	7,04E-07	x	x
Waste, nuclear, unspecified/kg	Afval	kg	x	x	2,39E-08	2,39E-08	x	x

2,4-D	Soil	kg	2,00E-05	2,00E-05	3,14E-05	3,14E-05	9,94E-10	9,94E-10
Acetamide	Soil	kg	8,42E-06	8,42E-06	x	x	x	x
Acetochlor	Soil	kg	4,95E-04	4,95E-04	x	x	x	x
Aclonifen	Soil	kg	-1,38E-05	-1,38E-05	2,54E-09	2,54E-09	1,60E-07	1,60E-07
Alachlor	Soil	kg	3,45E-05	3,45E-05	x	x	x	x
Aldrin	Soil	kg	1,26E-10	1,26E-10	4,82E-04	4,82E-04	1,07E-10	1,07E-10
Aluminium	Soil	kg	7,86E-05	7,86E-05	4,45E-04	4,45E-04	9,81E-04	9,81E-04
Ammonia	Soil	kg	x	x	1,16E-07	1,16E-07	x	x
Antimony	Soil	kg	1,69E-11	1,69E-11	1,34E-11	1,34E-11	1,66E-11	1,66E-11
Arsenic	Soil	kg	3,07E-08	3,07E-08	3,45E-05	3,45E-05	3,18E-07	3,18E-07
Atrazine	Soil	kg	8,10E-04	8,10E-04	1,26E-04	1,26E-04	2,82E-11	2,82E-11
Barium	Soil	kg	3,39E-05	3,39E-05	2,29E-05	2,29E-05	2,32E-05	2,32E-05
Benomyl	Soil	kg	4,68E-10	4,68E-10	5,39E-10	5,39E-10	6,29E-12	6,29E-12
Bentazone	Soil	kg	-7,07E-06	-7,07E-06	1,30E-09	1,30E-09	8,18E-08	8,18E-08
Bifenthrin	Soil	kg	1,80E-06	1,80E-06	x	x	x	x
Boron	Soil	kg	3,35E-06	3,35E-06	1,83E-06	1,83E-06	1,61E-06	1,61E-06
Bromide	Soil	kg	x	x	3,41E-11	3,41E-11	x	x
Bromoxynil	Soil	kg	5,41E-06	5,41E-06	x	x	x	x
Cadmium	Soil	kg	6,60E-08	6,60E-08	8,02E-07	8,02E-07	6,45E-07	6,45E-07
Calcium	Soil	kg	3,84E-04	3,84E-04	5,60E-03	5,60E-03	1,29E-02	1,29E-02
Carbetamide	Soil	kg	-9,84E-07	-9,84E-07	6,37E-10	6,37E-10	2,91E-08	2,91E-08
Carbofuran	Soil	kg	2,56E-07	2,56E-07	2,95E-07	2,95E-07	3,45E-09	3,45E-09
Carbon	Soil	kg	5,87E-04	5,87E-04	4,01E-04	4,01E-04	1,47E-02	1,47E-02
Chloride	Soil	kg	1,60E-03	1,60E-03	1,45E-03	1,45E-03	2,71E-03	2,71E-03
Chlorimuron-ethyl	Soil	kg	-5,08E-07	-5,08E-07	x	x	x	x
Chlorothalonil	Soil	kg	2,10E-04	2,10E-04	1,75E-07	1,75E-07	1,48E-07	1,48E-07

Chlorotoluron	Soil	kg	-1,06E-04	-1,06E-04	x	x	x	x
Chlorpyrifos	Soil	kg	3,85E-05	3,85E-05	x	x	x	x
Chromium	Soil	kg	4,06E-05	4,06E-05	3,90E-05	3,90E-05	9,01E-06	9,01E-06
Chromium VI	Soil	kg	1,51E-05	1,51E-05	7,73E-06	7,73E-06	6,46E-06	6,46E-06
Chromium, ion	Soil	kg	x	x	1,18E-15	1,18E-15	x	x
Clethodim	Soil	kg	-7,26E-07	-7,26E-07	x	x	x	x
Cloransulam-methyl	Soil	kg	-2,18E-07	-2,18E-07	x	x	x	x
Cobalt	Soil	kg	8,29E-09	8,29E-09	3,44E-07	3,44E-07	8,04E-07	8,04E-07
Copper	Soil	kg	6,46E-06	6,46E-06	1,38E-06	1,38E-06	1,18E-05	1,18E-05
Cyfluthrin	Soil	kg	4,21E-07	4,21E-07	x	x	x	x
Cypermethrin	Soil	kg	3,60E-07	3,60E-07	4,17E-08	4,17E-08	1,12E-09	1,12E-09
Cyproconazole	Soil	kg	-3,81E-07	-3,81E-07	x	x	x	x
Cyprodinil	Soil	kg	-1,51E-06	-1,51E-06	x	x	x	x
Decane	Soil	kg	x	x	4,24E-10	4,24E-10	x	x
Dicamba	Soil	kg	1,44E-05	1,44E-05	x	x	x	x
Diflufenzopyr-sodium	Soil	kg	1,60E-06	1,60E-06	x	x	x	x
Dimethenamid	Soil	kg	4,19E-05	4,19E-05	x	x	x	x
Ethephon	Soil	kg	-2,35E-05	-2,35E-05	x	x	x	x
Fenoxaprop	Soil	kg	-4,35E-07	-4,35E-07	x	x	x	x
Fenpiclonil	Soil	kg	8,82E-06	8,82E-06	6,98E-09	6,98E-09	1,14E-08	1,14E-08
Fenpropimorph	Soil	kg	-2,72E-05	-2,72E-05	x	x	x	x
Fipronil	Soil	kg	2,41E-06	2,41E-06	x	x	x	x
Fluazifop-P-butyl	Soil	kg	-1,45E-07	-1,45E-07	x	x	x	x
Flumetsulam	Soil	kg	2,81E-06	2,81E-06	x	x	x	x
Flumioxazin	Soil	kg	-2,54E-07	-2,54E-07	x	x	x	x
Fluoride	Soil	kg	1,36E-05	1,36E-05	7,52E-06	7,52E-06	6,70E-06	6,70E-06

Fomesafen	Soil	kg	-1,67E-06	-1,67E-06	x	x	x	x
Foramsulfuron	Soil	kg	3,01E-07	3,01E-07	x	x	x	x
Glufosinate	Soil	kg	9,92E-06	9,92E-06	x	x	x	x
Glyphosate	Soil	kg	-1,68E-04	-1,68E-04	4,57E-05	4,57E-05	4,68E-07	4,68E-07
Heat, waste	Soil	MJ	2,59E+00	2,59E+00	7,73E-01	7,73E-01	6,48E-01	6,48E-01
Imazamox	Soil	kg	-2,18E-07	-2,18E-07	x	x	x	x
Imazapyr	Soil	kg	4,01E-08	4,01E-08	x	x	x	x
Imazethapyr	Soil	kg	-4,04E-07	-4,04E-07	x	x	x	x
Iron	Soil	kg	9,64E-04	9,64E-04	9,19E-04	9,19E-04	2,01E-03	2,01E-03
Isoproturon	Soil	kg	-1,35E-04	-1,35E-04	x	x	x	x
Isoxaflutole	Soil	kg	4,81E-06	4,81E-06	x	x	x	x
Lambda-cyhalothrin	Soil	kg	1,28E-07	1,28E-07	x	x	x	x
Lead	Soil	kg	-3,83E-06	-3,83E-06	-4,09E-06	-4,09E-06	2,98E-06	2,98E-06
Linuron	Soil	kg	4,28E-06	4,28E-06	1,05E-04	1,05E-04	1,23E-06	1,23E-06
Magnesium	Soil	kg	6,70E-05	6,70E-05	6,49E-04	6,49E-04	1,47E-03	1,47E-03
Mancozeb	Soil	kg	3,07E-04	3,07E-04	2,28E-07	2,28E-07	1,92E-07	1,92E-07
Manganese	Soil	kg	9,95E-06	9,95E-06	3,83E-04	3,83E-04	8,94E-04	8,94E-04
Mercury	Soil	kg	-2,00E-08	-2,00E-08	-5,00E-08	-5,00E-08	5,74E-09	5,74E-09
Mesotrione	Soil	kg	1,30E-05	1,30E-05	x	x	x	x
Metaldehyde	Soil	kg	-6,44E-06	-6,44E-06	1,65E-10	1,65E-10	5,52E-09	5,52E-09
Metolachlor	Soil	kg	4,19E-04	4,19E-04	1,42E-07	1,42E-07	8,94E-06	8,94E-06
Metribuzin	Soil	kg	9,05E-06	9,05E-06	8,01E-09	8,01E-09	6,77E-09	6,77E-09
Molybdenum	Soil	kg	2,41E-09	2,41E-09	7,14E-08	7,14E-08	1,66E-07	1,66E-07
Napropamide	Soil	kg	3,50E-07	3,50E-07	2,91E-10	2,91E-10	9,76E-09	9,76E-09
Nickel	Soil	kg	2,13E-06	2,13E-06	1,46E-06	1,46E-06	2,49E-06	2,49E-06
Nicosulfuron	Soil	kg	2,20E-06	2,20E-06	x	x	x	x

Oils, biogenic	Soil	kg	1,79E-05	1,79E-05	8,38E-06	8,38E-06	1,05E-03	1,05E-03
Oils, unspecified	Soil	kg	1,32E-02	1,32E-02	8,90E-03	8,90E-03	4,76E-03	4,76E-03
Orbencarb	Soil	kg	5,83E-05	5,83E-05	4,33E-08	4,33E-08	3,66E-08	3,66E-08
Paraquat	Soil	kg	5,11E-06	5,11E-06	x	x	x	x
Parathion	Soil	kg	4,50E-04	4,50E-04	3,74E-04	3,74E-04	x	x
Pendimethalin	Soil	kg	-7,46E-05	-7,46E-05	x	x	x	x
Permethrin	Soil	kg	9,02E-07	9,02E-07	x	x	x	x
Phosphate	Soil	kg	x	x	6,63E-08	6,63E-08	x	x
Phosphorus	Soil	kg	6,90E-06	6,90E-06	1,89E-04	1,89E-04	4,39E-04	4,39E-04
Pirimicarb	Soil	kg	-6,69E-07	-6,69E-07	1,23E-10	1,23E-10	7,74E-09	7,74E-09
Potassium	Soil	kg	4,33E-05	4,33E-05	1,05E-03	1,05E-03	2,45E-03	2,45E-03
Primisulfuron	Soil	kg	1,00E-06	1,00E-06	x	x	x	x
Prochloraz	Soil	kg	x	x	x	x	x	x
Prosulfuron	Soil	kg	1,80E-07	1,80E-07	x	x	x	x
Rimsulfuron	Soil	kg	1,00E-06	1,00E-06	x	x	x	x
Silicon	Soil	kg	4,33E-05	4,33E-05	1,58E-03	1,58E-03	3,69E-03	3,69E-03
Simazine	Soil	kg	2,02E-05	2,02E-05	x	x	x	x
Sodium	Soil	kg	4,25E-04	4,25E-04	3,80E-04	3,80E-04	3,84E-04	3,84E-04
Strontium	Soil	kg	6,81E-07	6,81E-07	5,33E-07	5,33E-07	4,68E-07	4,68E-07
Sulfate	Soil	kg	x	x	3,66E-09	3,66E-09	x	x
Sulfentrazone	Soil	kg	-2,62E-06	-2,62E-06	x	x	x	x
Sulfide	Soil	kg	x	x	2,19E-08	2,19E-08	x	x
Sulfosate	Soil	kg	-1,08E-05	-1,08E-05	x	x	x	x
Sulfur	Soil	kg	4,75E-05	4,75E-05	2,06E-04	2,06E-04	4,40E-04	4,40E-04
Sulfuric acid	Soil	kg	6,34E-12	6,34E-12	5,16E-12	5,16E-12	5,41E-12	5,41E-12
Tebupirimphos	Soil	kg	8,42E-06	8,42E-06	x	x	x	x

Tebutam	Soil	kg	8,29E-07	8,29E-07	6,91E-10	6,91E-10	2,31E-08	2,31E-08
Teflubenzuron	Soil	kg	7,20E-07	7,20E-07	5,34E-10	5,34E-10	4,51E-10	4,51E-10
Tefluthrin	Soil	kg	6,61E-06	6,61E-06	x	x	x	x
Terbufos	Soil	kg	2,24E-05	2,24E-05	x	x	x	x
Thiram	Soil	kg	8,29E-10	8,29E-10	9,56E-10	9,56E-10	1,12E-11	1,12E-11
Tin	Soil	kg	4,59E-09	4,59E-09	-8,63E-07	-8,63E-07	2,77E-09	2,77E-09
Titanium	Soil	kg	4,95E-07	4,95E-07	2,63E-05	2,63E-05	6,16E-05	6,16E-05
Trifluralin	Soil	kg	-1,52E-05	-1,52E-05	x	x	x	x
Vanadium	Soil	kg	1,42E-08	1,42E-08	7,52E-07	7,52E-07	1,76E-06	1,76E-06
Zinc	Soil	kg	1,06E-05	1,06E-05	1,26E-05	1,26E-05	8,08E-05	8,08E-05

Table F 5 Non-Characterized Flows – ECK.

			ECK							
			BioBuild Demonstrator		BioBuild Optimized		Aluminium		GRP	
Substance	**Compartment**	**Unit**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**
Air	Raw	kg	x	x	2,61E+01	2,61E+01	x	x	x	x
Anhydrite	Raw	kg	6,41E-06	6,41E-06	7,31E-06	7,31E-06	3,96E-05	3,96E-05	3,73E-05	3,73E-05
Baryte	Raw	kg	2,88E-02	2,88E-02	1,93E-02	1,93E-02	2,25E-02	2,25E-02	1,61E-02	1,61E-02
Basalt	Raw	kg	4,54E+00	4,54E+00	4,54E+00	4,54E+00	4,54E+00	4,54E+00	4,54E+00	4,54E+00
Borax	Raw	kg	1,53E-04	1,53E-04	1,53E-04	1,53E-04	1,53E-04	1,53E-04	1,88E-04	1,88E-04
Bromine	Raw	kg	2,08E-03	2,08E-03	2,20E-04	2,20E-04	3,58E-06	3,58E-06	2,76E-06	2,76E-06
Calcite	Raw	kg	3,01E+00	3,01E+00	3,09E+00	3,09E+00	3,13E+00	3,13E+00	4,20E+00	4,20E+00
Calcium chloride	Raw	kg	x	x	5,70E-14	5,70E-14	x	x	x	x
Chrysotile	Raw	kg	5,45E-06	5,45E-06	1,11E-05	1,11E-05	9,75E-06	9,75E-06	6,66E-05	6,66E-05
Cinnabar	Raw	kg	5,08E-07	5,08E-07	1,07E-06	1,07E-06	9,12E-07	9,12E-07	6,15E-06	6,15E-06
Clay	Raw	kg	1,01E+00	1,01E+00	9,84E-01	9,84E-01	9,50E-01	9,50E-01	3,46E+00	3,46E+00

Clay, bentonite	Raw	kg	9,62E-03	9,62E-03	5,85E-03	5,85E-03	9,04E-03	9,04E-03	4,40E-03	4,40E-03
Colemanite	Raw	kg	1,32E-04	1,32E-04	7,42E-05	7,42E-05	8,90E-05	8,90E-05	2,40E+00	2,40E+00
Copper, 0.99% in sulfide, Cu 0.36% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,59E-03	1,59E-03	1,40E-03	1,40E-03	2,22E-03	2,22E-03	1,15E-03	1,15E-03
Copper, 1.18% in sulfide, Cu 0.39% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	8,78E-03	8,78E-03	7,75E-03	7,75E-03	1,23E-02	1,23E-02	6,30E-03	6,30E-03
Copper, 1.42% in sulfide, Cu 0.81% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	2,33E-03	2,33E-03	2,06E-03	2,06E-03	3,26E-03	3,26E-03	1,67E-03	1,67E-03
Copper, 2.19% in sulfide, Cu 1.83% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,17E-02	1,17E-02	1,04E-02	1,04E-02	1,62E-02	1,62E-02	8,35E-03	8,35E-03
Diatomite	Raw	kg	4,75E-09	4,75E-09	1,49E-09	1,49E-09	1,22E-09	1,22E-09	8,72E-10	8,72E-10
Dolomite	Raw	kg	5,31E-01	5,31E-01	5,31E-01	5,31E-01	5,31E-01	5,31E-01	5,31E-01	5,31E-01
Feldspar	Raw	kg	6,42E-08	6,42E-08	4,45E-07	4,45E-07	7,27E-08	7,27E-08	5,93E-08	5,93E-08
Fluorine, 4.5% in apatite, 1% in crude ore, in ground	Raw	kg	1,69E-02	1,69E-02	2,30E-02	2,30E-02	5,55E-05	5,55E-05	6,07E-05	6,07E-05
Fluorine, 4.5% in apatite, 3% in crude ore, in ground	Raw	kg	7,89E-02	7,89E-02	5,04E-02	5,04E-02	9,99E-05	9,99E-05	1,01E-04	1,01E-04
Gold, Au 1.1E-4%, Ag 4.2E-3%, in ore, in ground	Raw	kg	3,17E-08	3,17E-08	2,76E-08	2,76E-08	1,29E-08	1,29E-08	4,47E-08	4,47E-08
Gold, Au 1.3E-4%, Ag 4.6E-5%, in ore, in ground	Raw	kg	5,82E-08	5,82E-08	5,06E-08	5,06E-08	2,36E-08	2,36E-08	8,21E-08	8,21E-08
Gold, Au 2.1E-4%, Ag 2.1E-4%, in ore, in ground	Raw	kg	1,06E-07	1,06E-07	9,26E-08	9,26E-08	4,31E-08	4,31E-08	1,50E-07	1,50E-07
Gold, Au 4.3E-4%, in ore, in ground	Raw	kg	2,64E-08	2,64E-08	2,29E-08	2,29E-08	1,07E-08	1,07E-08	3,72E-08	3,72E-08
Gold, Au 4.9E-5%, in ore, in ground	Raw	kg	6,31E-08	6,31E-08	5,49E-08	5,49E-08	2,56E-08	2,56E-08	8,91E-08	8,91E-08
Gold, Au 6.7E-4%, in ore, in ground	Raw	kg	9,77E-08	9,77E-08	8,51E-08	8,51E-08	3,96E-08	3,96E-08	1,38E-07	1,38E-07
Gold, Au 7.1E-4%, in ore, in ground	Raw	kg	1,10E-07	1,10E-07	9,59E-08	9,59E-08	4,47E-08	4,47E-08	1,56E-07	1,56E-07
Gold, Au 9.7E-4%, Ag 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	6,60E-09	6,60E-09	5,75E-09	5,75E-09	2,68E-09	2,68E-09	9,32E-09	9,32E-09
Granite	Raw	kg	5,01E-08	5,01E-08	5,00E-08	5,00E-08	5,01E-08	5,01E-08	5,01E-08	5,01E-08
Gravel	Raw	kg	7,41E+00	7,41E+00	6,77E+00	6,77E+00	8,05E+00	8,05E+00	7,48E+00	7,48E+00
Gypsum	Raw	kg	4,05E-05	4,05E-05	4,32E-05	4,32E-05	2,04E-04	2,04E-04	3,38E-05	3,38E-05
Kaolinite	Raw	kg	2,12E-04	2,12E-04	1,98E-04	1,98E-04	1,50E-03	1,50E-03	7,75E-05	7,75E-05
Kieserite	Raw	kg	2,35E-06	2,35E-06	2,02E-06	2,02E-06	7,27E-05	7,27E-05	7,74E-07	7,74E-07
Magnesite	Raw	kg	1,97E-02	1,97E-02	2,10E-02	2,10E-02	2,86E-02	2,86E-02	3,54E-03	3,54E-03

Magnesium chloride	Raw	kg	x	x	1,17E-02	1,17E-02	x	x	x	x
Metamorphous rock, graphite containing	Raw	kg	1,06E-02	1,06E-02	1,87E-01	1,87E-01	6,93E-03	6,93E-03	5,71E-04	5,71E-04
Molybdenum, 0.010% in sulfide, Mo 8.2E-3% and Cu 1.83% in crude ore, in ground	Raw	kg	2,17E-04	2,17E-04	1,93E-04	1,93E-04	3,01E-04	3,01E-04	1,55E-04	1,55E-04
Molybdenum, 0.014% in sulfide, Mo 8.2E-3% and Cu 0.81% in crude ore, in ground	Raw	kg	3,06E-05	3,06E-05	2,70E-05	2,70E-05	4,29E-05	4,29E-05	2,20E-05	2,20E-05
Molybdenum, 0.022% in sulfide, Mo 8.2E-3% and Cu 0.36% in crude ore, in ground	Raw	kg	2,16E-05	2,16E-05	2,03E-05	2,03E-05	4,28E-05	4,28E-05	2,07E-05	2,07E-05
Molybdenum, 0.025% in sulfide, Mo 8.2E-3% and Cu 0.39% in crude ore, in ground	Raw	kg	1,12E-04	1,12E-04	9,90E-05	9,90E-05	1,57E-04	1,57E-04	8,05E-05	8,05E-05
Natural aggregate	Raw	kg	x	x	2,25E-04	2,25E-04	x	x	x	x
Nickel, 1.13% in sulfide, Ni 0.76% and Cu 0.76% in crude ore, in ground	Raw	kg	5,95E-04	5,95E-04	6,65E-04	6,65E-04	8,11E-05	8,11E-05	1,20E-04	1,20E-04
Nickel, 1.98% in silicates, 1.04% in crude ore, in ground	Raw	kg	3,35E-01	3,35E-01	3,66E-01	3,66E-01	4,86E-01	4,86E-01	2,28E-02	2,28E-02
Nitrogen, in air	Raw	kg	x	x	-3,43E-11	-3,43E-11	x	x	x	x
Olivine	Raw	kg	3,88E-06	3,88E-06	4,38E-06	4,38E-06	1,66E-05	1,66E-05	1,60E-05	1,60E-05
Oxygen, in air	Raw	kg	x	x	-9,00E-05	-9,00E-05	x	x	x	x
Pd, Pd 2.0E-4%, Pt 4.8E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	1,83E-08	1,83E-08	8,65E-09	8,65E-09	1,56E-08	1,56E-08	1,08E-08	1,08E-08
Pd, Pd 7.3E-4%, Pt 2.5E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	4,41E-08	4,41E-08	2,08E-08	2,08E-08	3,75E-08	3,75E-08	2,58E-08	2,58E-08
Phosphorus, 18% in apatite, 4% in crude ore, in ground	Raw	kg	6,74E-02	6,74E-02	9,18E-02	9,18E-02	2,22E-04	2,22E-04	2,43E-04	2,43E-04
Potassium chloride	Raw	kg	7,75E-01	7,75E-01	1,14E-01	1,14E-01	1,15E-02	1,15E-02	1,14E-02	1,14E-02
Pt, Pt 2.5E-4%, Pd 7.3E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	5,37E-10	5,37E-10	2,06E-10	2,06E-10	3,12E-10	3,12E-10	7,44E-11	7,44E-11
Pt, Pt 4.8E-4%, Pd 2.0E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	1,92E-09	1,92E-09	7,40E-10	7,40E-10	1,12E-09	1,12E-09	2,67E-10	2,67E-10
Pumice	Raw	kg	x	x	2,99E-09	2,99E-09	x	x	x	x
Rh, Rh 2.0E-5%, Pt 2.5E-4%, Pd 7.3E-4%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	3,06E-10	3,06E-10	8,33E-11	8,33E-11	3,02E-10	3,02E-10	4,70E-11	4,70E-11
Rh, Rh 2.4E-5%, Pt 4.8E-4%, Pd 2.0E-4%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	9,57E-10	9,57E-10	2,61E-10	2,61E-10	9,46E-10	9,46E-10	1,47E-10	1,47E-10
Sand	Raw	kg	7,11E-04	7,11E-04	8,19E-04	8,19E-04	8,44E-04	8,44E-04	6,59E-04	6,59E-04
Shale	Raw	kg	1,82E-05	1,82E-05	2,07E-05	2,07E-05	1,12E-04	1,12E-04	1,06E-04	1,06E-04
Silver, 0.007% in sulfide, Ag 0.004%, Pb, Zn, Cd, In, in ground	Raw	kg	7,09E-07	7,09E-07	6,12E-07	6,12E-07	2,88E-07	2,88E-07	9,93E-07	9,93E-07

Silver, 3.2ppm in sulfide, Ag 1.2ppm, Cu and Te, in crude ore, in ground	Raw	kg	5,06E-07	5,06E-07	4,37E-07	4,37E-07	2,05E-07	2,05E-07	7,08E-07	7,08E-07
Silver, Ag 2.1E-4%, Au 2.1E-4%, in ore, in ground	Raw	kg	4,67E-08	4,67E-08	4,03E-08	4,03E-08	1,89E-08	1,89E-08	6,54E-08	6,54E-08
Silver, Ag 4.2E-3%, Au 1.1E-4%, in ore, in ground	Raw	kg	1,07E-07	1,07E-07	9,21E-08	9,21E-08	4,32E-08	4,32E-08	1,49E-07	1,49E-07
Silver, Ag 4.6E-5%, Au 1.3E-4%, in ore, in ground	Raw	kg	1,05E-07	1,05E-07	9,03E-08	9,03E-08	4,24E-08	4,24E-08	1,46E-07	1,46E-07
Silver, Ag 9.7E-4%, Au 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	6,90E-08	6,90E-08	5,96E-08	5,96E-08	2,80E-08	2,80E-08	9,66E-08	9,66E-08
Slate	Raw	kg	x	x	5,02E-17	5,02E-17	x	x	x	x
Sodium nitrate	Raw	kg	4,76E-10	4,76E-10	6,40E-10	6,40E-10	5,45E-08	5,45E-08	5,45E-10	5,45E-10
Stibnite	Raw	kg	4,94E-10	4,94E-10	1,55E-10	1,55E-10	1,26E-10	1,26E-10	9,06E-11	9,06E-11
TiO2, 54% in ilmenite, 2.6% in crude ore, in ground	Raw	kg	1,29E-02	1,29E-02	2,48E-01	2,48E-01	1,22E-02	1,22E-02	3,00E-01	3,00E-01
TiO2, 95% in rutile, 0.40% in crude ore, in ground	Raw	kg	6,59E-08	6,59E-08	5,59E-08	5,59E-08	5,30E-08	5,30E-08	5,69E-08	5,69E-08
Ulexite	Raw	kg	3,60E-06	3,60E-06	1,24E-06	1,24E-06	3,19E-07	3,19E-07	8,22E-07	8,22E-07
Volume occupied, final repository for low-active radioactive waste	Raw	m3	5,40E-07	5,40E-07	2,89E-07	2,89E-07	5,10E-07	5,10E-07	3,53E-07	3,53E-07
Volume occupied, final repository for radioactive waste	Raw	m3	1,34E-07	1,34E-07	7,02E-08	7,02E-08	1,29E-07	1,29E-07	8,90E-08	8,90E-08
Volume occupied, reservoir	Raw	m3y	5,18E-01	5,18E-01	3,66E-01	3,66E-01	8,58E-01	8,58E-01	2,92E-01	2,92E-01
Volume occupied, underground deposit	Raw	m3	2,26E-05	2,26E-05	2,24E-05	2,24E-05	1,15E-04	1,15E-04	1,60E-05	1,60E-05
Water, rain	Raw	m3	2,57E-01	2,57E-01	x	x	x	x	x	x
Water, salt, ocean	Raw	m3	2,30E-02	2,30E-02	1,24E-02	1,24E-02	2,06E-02	2,06E-02	1,73E-02	1,73E-02
Water, salt, sole	Raw	m3	8,37E-01	8,37E-01	9,32E-02	9,32E-02	4,74E-03	4,74E-03	2,33E-03	2,33E-03
Water, turbine use, unspecified natural origin	Raw	m3	4,45E+02	4,45E+02	3,88E+02	3,88E+02	9,81E+02	9,81E+02	1,25E+02	1,25E+02
Wood, hard, standing	Raw	m3	1,97E-04	1,97E-04	1,29E-04	1,29E-04	2,01E-04	2,01E-04	-2,21E-07	-2,21E-07
Wood, primary forest, standing	Raw	m3	8,09E-05	8,09E-05	8,08E-05	8,08E-05	7,85E-05	7,85E-05	7,82E-05	7,82E-05
Wood, soft, standing	Raw	m3	1,02E-03	1,02E-03	7,98E-04	7,98E-04	8,50E-04	8,50E-04	5,00E-04	5,00E-04
Wood, unspecified, standing/m3	Raw	m3	3,13E-07	3,13E-07	3,32E-07	3,32E-07	3,52E-07	3,52E-07	2,57E-06	2,57E-06
2-Aminopropanol	Air	kg	1,11E-07	1,11E-07	9,88E-09	9,88E-09	2,22E-12	2,22E-12	1,58E-12	1,58E-12
2-Nitrobenzoic acid	Air	kg	2,70E-07	2,70E-07	2,39E-08	2,39E-08	3,30E-12	3,30E-12	3,04E-12	3,04E-12
Acidity, unspecified	Air	kg	x	x	7,81E-10	7,81E-10	x	x	x	x

Actinides, radioactive, unspecified	Air	Bq	6,38E-03	6,38E-03	4,23E-03	4,23E-03	1,11E-02	1,11E-02	3,56E-03	3,56E-03
Aerosols, radioactive, unspecified	Air	Bq	1,09E-01	1,09E-01	5,60E-02	5,60E-02	1,17E-01	1,17E-01	7,43E-02	7,43E-02
Aldehydes, unspecified	Air	kg	5,59E-06	5,59E-06	5,61E-06	5,61E-06	5,14E-06	5,14E-06	9,67E-06	9,67E-06
Aluminium	Air	kg	1,74E-03	1,96E-03	1,53E-03	1,65E-03	2,65E-03	2,85E-03	8,15E-04	9,57E-04
Ammonium carbonate	Air	kg	9,20E-08	9,20E-08	1,08E-07	1,08E-07	1,20E-07	1,20E-07	8,15E-08	8,15E-08
Anthranilic acid	Air	kg	1,31E-07	1,31E-07	1,87E-08	1,87E-08	2,46E-12	2,46E-12	2,27E-12	2,27E-12
Argon-41	Air	Bq	4,28E+01	4,28E+01	1,45E+01	1,45E+01	1,50E+01	1,50E+01	2,19E+01	2,19E+01
Arsenic trioxide	Air	kg	x	x	8,37E-15	8,37E-15	x	x	x	x
Arsine	Air	kg	1,04E-13	1,04E-13	7,85E-13	7,85E-13	4,21E-14	4,21E-14	1,47E-13	1,47E-13
Barium-140	Air	Bq	1,21E-03	1,21E-03	1,02E-03	1,02E-03	7,94E-04	7,94E-04	8,97E-04	8,97E-04
Benzal chloride	Air	kg	6,48E-15	6,48E-15	6,17E-15	6,17E-15	2,93E-14	2,93E-14	4,88E-15	4,88E-15
Benzo(b)fluoranthene	Air	kg	x	x	1,54E-12	1,54E-12	x	x	x	x
Benzo(g,h,i)perylene	Air	kg	x	x	7,68E-13	7,68E-13	x	x	x	x
Boron	Air	kg	1,54E-04	1,54E-04	7,87E-05	7,89E-05	1,69E-04	1,69E-04	1,02E-04	1,02E-04
Boron trifluoride	Air	kg	1,42E-15	1,42E-15	1,24E-15	1,24E-15	5,77E-16	5,77E-16	2,01E-15	2,01E-15
Bromine	Air	kg	2,96E-05	2,96E-05	2,67E-05	2,67E-05	1,99E-05	1,99E-05	1,13E-05	1,13E-05
Butene	Air	kg	1,85E-05	1,85E-05	1,63E-05	1,63E-05	5,89E-06	5,89E-06	2,06E-06	2,06E-06
Calcium	Air	kg	1,21E-03	1,28E-03	1,63E-03	1,67E-03	9,97E-05	1,67E-04	8,88E-05	1,35E-04
Carbon dioxide, land transformation	Air	kg	1,22E-01	1,22E-01	7,40E-01	7,40E-01	1,18E-01	1,18E-01	1,17E-01	1,17E-01
Carbon monoxide, biogenic	Air	kg	5,15E-01	5,15E-01	7,01E-01	7,01E-01	2,91E-03	2,91E-03	1,02E-03	1,02E-03
Carbon monoxide, fossil	Air	kg	1,31E-01	1,31E-01	1,17E-01	1,17E-01	2,90E-01	2,90E-01	5,80E-02	5,80E-02
Cerium-141	Air	Bq	2,93E-04	2,93E-04	2,48E-04	2,48E-04	1,92E-04	1,92E-04	2,18E-04	2,18E-04
Chloride	Air	kg	x	x	7,05E-09	7,05E-09	x	x	x	x
Chlorine	Air	kg	1,36E-04	1,39E-04	8,21E-05	8,36E-05	1,31E-05	1,57E-05	2,47E-03	2,47E-03
Chlorosilane, trimethyl-	Air	kg	2,24E-06	2,24E-06	2,24E-06	2,24E-06	2,24E-06	2,24E-06	2,24E-06	2,24E-06
Chromium-51	Air	Bq	1,88E-05	1,88E-05	1,59E-05	1,59E-05	1,23E-05	1,23E-05	1,39E-05	1,39E-05

Chromium, ion	Air	kg	x	x	2,46E-12	2,46E-12	x	x	x	x
Chrysene	Air	kg	x	x	2,12E-12	2,12E-12	x	x	x	x
Cyanide	Air	kg	5,42E-05	5,42E-05	7,86E-05	7,86E-05	3,04E-05	3,04E-05	4,27E-05	4,27E-05
Cyanoacetic acid	Air	kg	1,47E-07	1,47E-07	2,35E-08	2,35E-08	1,30E-11	1,30E-11	1,11E-11	1,11E-11
Ethyl cellulose	Air	kg	3,24E-08	3,24E-08	2,82E-08	2,82E-08	1,31E-08	1,31E-08	4,57E-08	4,57E-08
Fluoride	Air	kg	x	x	9,91E-09	9,91E-09	x	x	x	x
Fluorine	Air	kg	1,25E-05	2,58E-05	1,59E-05	2,31E-05	3,84E-06	1,65E-05	8,04E-07	9,45E-06
Fluosilicic acid	Air	kg	2,69E-05	2,69E-05	2,68E-05	2,68E-05	8,22E-05	8,22E-05	1,14E-06	1,14E-06
Heat, waste	Air	MJ	1,31E+03	1,31E+03	1,03E+03	1,03E+03	9,62E+02	9,62E+02	7,28E+02	7,28E+02
Helium	Air	kg	1,74E-05	1,74E-05	9,61E-06	9,61E-06	1,47E-05	1,47E-05	5,11E-06	5,11E-06
Hydrocarbons, aliphatic, alkanes, cyclic	Air	kg	4,60E-06	4,60E-06	4,71E-06	4,71E-06	4,23E-06	4,23E-06	3,15E-05	3,15E-05
Hydrocarbons, aliphatic, alkanes, unspecified	Air	kg	6,85E-04	6,85E-04	1,72E-03	1,72E-03	7,94E-04	7,94E-04	9,58E-04	9,58E-04
Hydrocarbons, aliphatic, unsaturated	Air	kg	6,32E-04	6,32E-04	8,25E-04	8,25E-04	3,98E-05	3,98E-05	1,58E-05	1,58E-05
Hydrocarbons, aromatic	Air	kg	1,47E-04	1,47E-04	1,46E-04	1,46E-04	3,15E-04	3,15E-04	6,71E-04	6,71E-04
Hydrocarbons, chlorinated	Air	kg	6,47E-05	6,47E-05	7,78E-05	7,78E-05	1,22E-04	1,22E-04	1,92E-05	1,92E-05
Hydrogen	Air	kg	5,87E-04	5,87E-04	8,59E-04	8,59E-04	8,31E-04	8,31E-04	1,78E-03	1,78E-03
Hydrogen bromide	Air	kg	x	x	7,06E-11	7,06E-11	x	x	x	x
Hydrogen chloride	Air	kg	1,82E-03	1,82E-03	1,45E-03	1,45E-03	2,67E-03	2,67E-03	2,02E-03	2,02E-03
Hydrogen cyanide	Air	kg	x	x	1,10E-09	1,10E-09	x	x	x	x
Hydrogen fluoride	Air	kg	8,48E-04	8,48E-04	6,97E-04	6,97E-04	1,85E-03	1,85E-03	3,49E-04	3,49E-04
Hydrogen iodide	Air	kg	x	x	7,60E-14	7,60E-14	x	x	x	x
Hydrogen peroxide	Air	kg	2,40E-08	2,40E-08	2,09E-08	2,09E-08	9,73E-09	9,73E-09	3,38E-08	3,38E-08
Hydrogen sulfide	Air	kg	3,03E-04	3,03E-04	2,14E-04	2,14E-04	2,06E-04	2,06E-04	1,96E-04	1,96E-04
Indeno(1,2,3-cd)pyrene	Air	kg	x	x	5,72E-13	5,72E-13	x	x	x	x
Iodine	Air	kg	8,87E-06	8,87E-06	4,65E-06	4,65E-06	9,94E-06	9,94E-06	5,63E-06	5,63E-06
Iodine-135	Air	Bq	1,33E-03	1,33E-03	7,64E-04	7,64E-04	1,17E-03	1,17E-03	6,68E-04	6,68E-04

Iron	Air	kg	7,91E-05	3,16E-04	8,67E-05	2,14E-04	1,06E-04	3,32E-04	8,14E-05	2,36E-04
Isocyanic acid	Air	kg	1,94E-03	1,94E-03	2,59E-03	2,59E-03	2,00E-07	2,00E-07	1,70E-07	1,70E-07
Krypton-85m	Air	Bq	1,95E+01	1,95E+01	5,56E+03	5,56E+03	1,21E+01	1,21E+01	1,40E+01	1,40E+01
Krypton-87	Air	Bq	5,47E+00	5,47E+00	3,79E+00	3,79E+00	3,09E+00	3,09E+00	3,68E+00	3,68E+00
Krypton-88	Air	Bq	6,36E+00	6,36E+00	4,73E+00	4,73E+00	3,79E+00	3,79E+00	4,43E+00	4,43E+00
Krypton-89	Air	Bq	2,28E+00	2,28E+00	1,88E+00	1,88E+00	1,47E+00	1,47E+00	1,67E+00	1,67E+00
Lactic acid	Air	kg	2,21E-07	2,21E-07	1,15E-08	1,15E-08	1,19E-09	1,19E-09	1,13E-09	1,13E-09
Lanthanum-140	Air	Bq	1,03E-04	1,03E-04	8,75E-05	8,75E-05	6,78E-05	6,78E-05	7,67E-05	7,67E-05
Lead compounds	Air	kg	x	x	4,91E-15	4,91E-15	x	x	x	x
Magnesium	Air	kg	1,29E-04	1,51E-04	1,62E-04	1,74E-04	7,97E-05	1,00E-04	6,69E-05	8,11E-05
Manganese	Air	kg	3,96E-05	4,45E-05	5,02E-05	5,29E-05	8,59E-06	1,33E-05	3,28E-06	6,47E-06
Methanesulfonic acid	Air	kg	1,49E-07	1,49E-07	2,37E-08	2,37E-08	1,31E-11	1,31E-11	1,13E-11	1,13E-11
Methyl borate	Air	kg	6,70E-08	6,70E-08	4,43E-09	4,43E-09	3,07E-11	3,07E-11	3,84E-12	3,84E-12
Niobium-95	Air	Bq	1,14E-06	1,14E-06	9,66E-07	9,66E-07	7,49E-07	7,49E-07	8,48E-07	8,48E-07
Nitrogen	Air	kg	x	x	2,49E-04	2,49E-04	x	x	x	x
Noble gases, radioactive, unspecified	Air	Bq	4,34E+06	4,34E+06	2,23E+06	2,23E+06	4,26E+06	4,26E+06	3,00E+06	3,00E+06
Oxygen	Air	kg	x	x	1,57E-05	1,57E-05	x	x	x	x
Ozone	Air	kg	1,19E-04	1,19E-04	1,08E-04	1,08E-04	2,09E-04	2,09E-04	4,07E-05	4,07E-05
PAH, polycyclic aromatic hydrocarbons	Air	kg	8,29E-05	8,29E-05	7,85E-05	7,85E-05	2,24E-04	2,24E-04	4,40E-06	4,40E-06
Palladium	Air	kg	x	x	1,58E-18	1,58E-18	x	x	x	x
Particulates, > 10 um	Air	kg	1,19E-01	1,19E-01	1,31E-01	1,31E-01	8,03E-02	8,07E-02	5,21E-02	5,24E-02
Particulates, > 2.5 um, and < 10um	Air	kg	4,45E-02	4,48E-02	4,39E-02	4,40E-02	5,77E-02	5,80E-02	3,84E-02	3,86E-02
Particulates, unspecified	Air	kg	x	x	x	x	x	x	x	x
Phosphine	Air	kg	7,71E-12	7,71E-12	6,71E-12	6,71E-12	3,12E-12	3,12E-12	1,09E-11	1,09E-11
Phosphorus	Air	kg	6,06E-05	6,10E-05	8,24E-05	8,26E-05	3,08E-06	3,43E-06	1,32E-06	1,56E-06
Platinum	Air	kg	5,49E-12	5,49E-12	2,34E-12	2,34E-12	9,58E-13	9,58E-13	1,39E-12	1,39E-12

Potassium	Air	kg	4,59E-03	4,63E-03	6,16E-03	6,18E-03	5,08E-05	8,64E-05	1,65E-05	4,08E-05
Potassium-40	Air	Bq	7,62E-01	7,62E-01	5,47E-01	5,47E-01	1,03E+00	1,03E+00	5,39E-01	5,39E-01
Protactinium-234	Air	Bq	6,48E-02	6,48E-02	3,49E-02	3,49E-02	6,21E-02	6,21E-02	4,21E-02	4,21E-02
Radioactive species, other beta emitters	Air	Bq	7,62E+00	7,62E+00	2,39E+00	2,39E+00	1,95E+00	1,95E+00	1,40E+00	1,40E+00
Radium-228	Air	Bq	1,01E+00	1,01E+00	1,03E+00	1,03E+00	1,44E+00	1,44E+00	1,12E+00	1,12E+00
Radon-220	Air	Bq	2,56E+01	2,56E+01	1,41E+01	1,41E+01	2,79E+01	2,79E+01	5,34E+00	5,34E+00
Rhodium	Air	kg	x	x	1,52E-18	1,52E-18	x	x	x	x
Ruthenium-103	Air	Bq	2,51E-07	2,51E-07	2,12E-07	2,12E-07	1,65E-07	1,65E-07	1,86E-07	1,86E-07
Scandium	Air	kg	2,34E-08	8,05E-07	2,45E-08	4,44E-07	3,04E-08	7,75E-07	2,57E-08	5,34E-07
Silicon	Air	kg	4,50E-04	4,99E-04	6,90E-04	7,16E-04	9,07E-04	9,53E-04	3,95E-04	4,26E-04
Silicon tetrafluoride	Air	kg	5,08E-07	5,08E-07	6,94E-07	6,94E-07	1,61E-09	1,61E-09	1,77E-09	1,77E-09
Sodium	Air	kg	3,50E-04	3,63E-04	4,75E-04	4,81E-04	1,06E-04	1,19E-04	1,45E-04	1,54E-04
Sodium chlorate	Air	kg	2,57E-08	2,57E-08	4,57E-08	4,57E-08	2,75E-08	2,75E-08	1,60E-08	1,60E-08
Sodium dichromate	Air	kg	8,81E-07	8,81E-07	6,48E-07	6,48E-07	8,41E-07	8,41E-07	5,21E-07	5,21E-07
Sodium hydroxide	Air	kg	8,95E-08	8,95E-08	7,79E-08	7,79E-08	3,63E-08	3,63E-08	1,26E-07	1,26E-07
Strontium	Air	kg	4,96E-06	5,75E-06	4,31E-06	4,74E-06	6,84E-06	7,59E-06	4,82E-06	5,33E-06
Sulfate	Air	kg	7,38E-03	7,58E-03	6,44E-03	6,55E-03	2,60E-04	4,51E-04	8,03E-03	8,16E-03
Tellurium	Air	kg	x	x	3,29E-13	3,29E-13	x	x	x	x
Terpenes	Air	kg	7,08E-06	7,08E-06	7,07E-06	7,07E-06	6,87E-06	6,87E-06	6,84E-06	6,84E-06
Thorium	Air	kg	2,99E-08	2,99E-08	3,27E-08	3,27E-08	4,04E-08	4,04E-08	3,44E-08	3,44E-08
Thorium-228	Air	Bq	1,88E-01	1,88E-01	1,47E-01	1,47E-01	2,55E-01	2,55E-01	1,59E-01	1,59E-01
Thorium-232	Air	Bq	2,66E-01	2,66E-01	1,88E-01	1,88E-01	3,08E-01	3,08E-01	1,72E-01	1,72E-01
Thorium-234	Air	Bq	6,48E-02	6,48E-02	3,49E-02	3,49E-02	6,21E-02	6,21E-02	4,21E-02	4,21E-02
Tin oxide	Air	kg	x	x	4,27E-16	4,27E-16	x	x	x	x
Titanium	Air	kg	3,75E-05	5,18E-05	3,97E-05	4,74E-05	4,04E-05	5,40E-05	4,36E-05	5,28E-05
Tungsten	Air	kg	1,93E-10	8,85E-08	1,04E-10	4,75E-08	1,84E-10	8,43E-08	1,26E-10	5,75E-08

Uranium	Air	kg	3,45E-08	3,45E-08	3,85E-08	3,85E-08	4,84E-08	4,84E-08	4,09E-08	4,09E-08
Uranium alpha	Air	Bq	3,51E+00	3,51E+00	1,89E+00	1,89E+00	3,35E+00	3,35E+00	2,29E+00	2,29E+00
Used air	Air	kg	x	x	3,82E+00	3,82E+00	x	x	x	x
Water	Air	kg	5,16E-02	5,16E-02	7,77E-01	7,77E-01	9,27E-01	9,27E-01	5,02E-02	5,02E-02
Xenon-131m	Air	Bq	2,70E+01	2,70E+01	1,93E+01	1,93E+01	1,56E+01	1,56E+01	1,85E+01	1,85E+01
Xenon-133m	Air	Bq	2,12E+00	2,12E+00	1,05E+00	1,05E+00	9,49E-01	9,49E-01	1,24E+00	1,24E+00
Xenon-135	Air	Bq	3,78E+02	3,78E+02	2,78E+02	2,78E+02	2,23E+02	2,23E+02	2,62E+02	2,62E+02
Xenon-135m	Air	Bq	2,32E+02	2,32E+02	1,73E+02	1,73E+02	1,39E+02	1,39E+02	1,62E+02	1,62E+02
Xenon-137	Air	Bq	6,24E+00	6,24E+00	5,14E+00	5,14E+00	4,01E+00	4,01E+00	4,57E+00	4,57E+00
Xenon-138	Air	Bq	4,89E+01	4,89E+01	3,90E+01	3,90E+01	3,07E+01	3,07E+01	3,53E+01	3,53E+01
Zinc-65	Air	Bq	4,80E-05	4,80E-05	4,06E-05	4,06E-05	3,15E-05	3,15E-05	3,57E-05	3,57E-05
Zinc oxide	Air	kg	x	x	8,55E-16	8,55E-16	x	x	x	x
Zirconium	Air	kg	7,95E-08	7,95E-08	7,59E-08	7,59E-08	8,19E-08	8,19E-08	7,27E-08	7,27E-08
Zirconium-95	Air	Bq	4,69E-05	4,69E-05	3,97E-05	3,97E-05	3,08E-05	3,08E-05	3,48E-05	3,48E-05
1-Pentene	Water	kg	2,75E-07	2,75E-07	1,70E-08	1,70E-08	1,50E-10	1,50E-10	1,81E-11	1,81E-11
2-Aminopropanol	Water	kg	3,69E-07	3,69E-07	2,37E-08	2,37E-08	5,46E-12	5,46E-12	3,91E-12	3,91E-12
2-Methyl-2-butene	Water	kg	6,10E-11	6,10E-11	3,77E-12	3,77E-12	3,32E-14	3,32E-14	4,02E-15	4,02E-15
Acenaphthylene	Water	kg	1,02E-10	1,02E-10	9,11E-11	9,11E-11	1,01E-10	1,01E-10	3,59E-11	3,59E-11
Acidity, unspecified	Water	kg	1,41E-04	1,41E-04	1,43E-04	1,43E-04	1,67E-04	1,67E-04	1,46E-04	1,46E-04
Acids, unspecified	Water	kg	4,27E-02	4,27E-02	5,82E-02	5,82E-02	x	x	x	x
Acrylate, ion	Water	kg	2,11E-08	2,11E-08	1,84E-08	1,84E-08	8,56E-09	8,56E-09	2,98E-08	2,98E-08
Actinides, radioactive, unspecified	Water	Bq	7,34E-01	7,34E-01	3,77E-01	3,77E-01	7,20E-01	7,20E-01	5,07E-01	5,07E-01
Aluminium	Water	kg	2,94E-04	9,95E-01	2,58E-04	9,90E-01	4,09E-04	3,02E+00	1,88E-04	3,20E-02
Antimony-122	Water	Bq	7,17E-04	7,17E-04	6,08E-04	6,08E-04	4,71E-04	4,71E-04	5,33E-04	5,33E-04
AOX, Adsorbable Organic Halogen as Cl	Water	kg	1,36E-06	1,36E-06	4,74E-06	4,74E-06	3,92E-06	3,92E-06	1,13E-06	1,13E-06
Arsenic, ion	Water	kg	1,03E-04	2,22E-04	8,71E-05	1,76E-04	1,32E-04	2,76E-04	3,16E-05	1,15E-04

Barite	Water	kg	2,06E-03	2,06E-03	1,28E-03	1,28E-03	6,85E-04	6,85E-04	1,49E-04	1,49E-04
Barium-140	Water	Bq	3,14E-03	3,14E-03	2,66E-03	2,66E-03	2,06E-03	2,06E-03	2,33E-03	2,33E-03
Benzo(b)fluoranthene	Water	kg	x	x	1,73E-11	1,73E-11	x	x	x	x
BOD5, Biological Oxygen Demand	Water	kg	1,28E+00	1,34E+00	6,11E-01	6,97E-01	6,29E-02	1,42E-01	2,35E-01	3,04E-01
Borate	Water	kg	4,28E-05	4,28E-05	3,05E-06	3,05E-06	1,52E-08	1,52E-08	1,99E-09	1,99E-09
Boron	Water	kg	1,35E-04	1,69E-03	1,16E-04	1,38E-03	1,97E-04	2,45E-03	1,88E-04	1,34E-03
Bromate	Water	kg	2,89E-05	2,89E-05	5,89E-05	5,89E-05	5,15E-05	5,15E-05	3,51E-04	3,51E-04
Bromide	Water	kg	1,75E-03	1,75E-03	1,93E-04	1,93E-04	3,77E-06	3,77E-06	3,08E-06	3,08E-06
Bromine	Water	kg	7,42E-04	8,07E-04	3,91E-03	4,00E-03	3,29E-04	3,61E-04	3,53E-04	4,15E-04
Butene	Water	kg	2,71E-05	2,71E-05	2,99E-05	2,99E-05	3,85E-07	3,85E-07	1,14E-07	1,14E-07
Cadmium, ion	Water	kg	1,73E-05	6,37E-05	1,19E-05	5,08E-05	1,39E-06	7,32E-05	8,64E-07	3,33E-05
Calcium, ion	Water	kg	6,72E-01	1,11E+00	4,75E-01	7,86E-01	2,93E-02	4,83E-01	1,88E-02	6,75E-01
Carbonate	Water	kg	2,50E-03	2,50E-03	1,63E-03	1,63E-03	1,79E-03	1,79E-03	1,93E-03	1,93E-03
Carboxylic acids, unspecified	Water	kg	1,13E-03	1,13E-03	7,23E-04	7,23E-04	1,12E-03	1,12E-03	3,99E-04	3,99E-04
Cerium-141	Water	Bq	1,26E-03	1,26E-03	1,06E-03	1,06E-03	8,25E-04	8,25E-04	9,34E-04	9,34E-04
Cerium-144	Water	Bq	3,82E-04	3,82E-04	3,24E-04	3,24E-04	2,51E-04	2,51E-04	2,84E-04	2,84E-04
Cesium	Water	kg	2,62E-07	2,62E-07	1,66E-07	1,66E-07	2,60E-07	2,60E-07	9,22E-08	9,22E-08
Cesium-136	Water	Bq	2,23E-04	2,23E-04	1,89E-04	1,89E-04	1,47E-04	1,47E-04	1,66E-04	1,66E-04
Chlorate	Water	kg	2,22E-04	2,22E-04	4,55E-04	4,55E-04	3,97E-04	3,97E-04	2,69E-03	2,69E-03
Chloride	Water	kg	6,90E-01	1,40E+00	3,86E-01	5,04E-01	3,95E-01	4,43E-01	2,67E+00	2,70E+00
Chlorinated solvents, unspecified	Water	kg	8,05E-06	8,05E-06	8,72E-06	8,72E-06	7,44E-06	7,44E-06	8,24E-06	8,24E-06
Chlorine	Water	kg	5,71E-06	5,71E-06	8,96E-06	8,96E-06	4,60E-06	4,60E-06	8,00E-06	8,00E-06
Chloroacetyl chloride	Water	kg	4,92E-07	4,92E-07	3,16E-08	3,16E-08	7,28E-12	7,28E-12	5,22E-12	5,22E-12
Chromium-51	Water	Bq	2,98E-01	2,98E-01	2,36E-01	2,36E-01	2,47E-01	2,47E-01	1,99E-01	1,99E-01
Chromium, ion	Water	kg	3,65E-05	3,65E-05	2,09E-05	2,09E-05	9,75E-06	9,75E-06	8,58E-06	8,58E-06
Chrysene	Water	kg	x	x	8,80E-11	8,80E-11	x	x	x	x

Cobalt-57	Water	Bq	7,08E-03	7,08E-03	6,00E-03	6,00E-03	4,65E-03	4,65E-03	5,26E-03	5,26E-03
COD, Chemical Oxygen Demand	Water	kg	1,59E+00	1,78E+00	7,01E-01	9,44E-01	7,23E-02	3,12E-01	2,52E-01	4,65E-01
Copper, ion	Water	kg	2,49E-05	8,23E-04	3,67E-05	7,46E-04	8,84E-06	1,31E-03	2,36E-05	7,49E-04
Cyanide	Water	kg	1,25E-05	1,25E-05	1,07E-05	1,07E-05	1,75E-05	1,75E-05	8,68E-06	8,68E-06
Dichromate	Water	kg	1,50E-06	1,50E-06	6,35E-07	6,35E-07	1,36E-06	1,36E-06	1,64E-07	1,64E-07
DOC, Dissolved Organic Carbon	Water	kg	1,96E-02	9,29E-02	2,03E-02	1,18E-01	1,90E-02	1,15E-01	6,81E-02	1,53E-01
Ethene	Water	kg	4,58E-04	4,58E-04	2,86E-04	2,86E-04	4,00E-04	4,00E-04	4,74E-05	4,74E-05
Fluoride	Water	kg	7,79E-03	2,20E-02	6,00E-03	2,10E-02	1,24E-03	2,18E-02	7,77E-04	6,17E-03
Fluorine	Water	kg	x	x	4,65E-10	4,65E-10	x	x	x	x
Fluosilicic acid	Water	kg	4,84E-05	4,84E-05	4,82E-05	4,82E-05	1,48E-04	1,48E-04	2,05E-06	2,05E-06
Formate	Water	kg	7,67E-05	7,67E-05	2,29E-05	2,29E-05	3,74E-08	3,74E-08	1,71E-08	1,71E-08
Heat, waste	Water	MJ	5,41E+01	5,42E+01	5,28E+01	5,29E+01	6,01E+01	6,04E+01	5,34E+01	5,35E+01
Hydrocarbons, aliphatic, alkanes, unspecified	Water	kg	3,40E-05	3,40E-05	2,15E-05	2,15E-05	3,38E-05	3,38E-05	1,20E-05	1,20E-05
Hydrocarbons, aliphatic, unsaturated	Water	kg	3,65E-06	3,65E-06	2,06E-06	2,06E-06	3,12E-06	3,12E-06	1,11E-06	1,11E-06
Hydrocarbons, aromatic	Water	kg	1,41E-04	1,41E-04	8,97E-05	8,97E-05	1,38E-04	1,38E-04	4,92E-05	4,92E-05
Hydrocarbons, unspecified	Water	kg	6,32E-04	6,32E-04	6,43E-04	6,43E-04	7,04E-04	7,04E-04	6,99E-04	6,99E-04
Hydrogen chloride	Water	kg	x	x	2,92E-10	2,92E-10	x	x	x	x
Hydrogen fluoride	Water	kg	x	x	1,00E-11	1,00E-11	x	x	x	x
Hydrogen peroxide	Water	kg	1,20E-04	1,20E-04	1,20E-04	1,20E-04	1,20E-04	1,20E-04	1,20E-04	1,20E-04
Hydrogen sulfide	Water	kg	4,06E-06	7,29E-05	3,82E-06	9,08E-05	4,13E-06	4,18E-05	3,69E-06	4,08E-05
Hydroxide	Water	kg	1,55E-06	1,55E-06	6,46E-07	6,46E-07	2,73E-07	2,73E-07	9,41E-07	9,41E-07
Hypochlorite	Water	kg	1,05E-05	1,05E-05	5,43E-06	5,43E-06	1,21E-05	1,21E-05	4,85E-06	4,85E-06
Iodide	Water	kg	3,17E-04	3,17E-04	1,74E-04	1,74E-04	2,73E-05	2,73E-05	1,02E-05	1,02E-05
Iodine-133	Water	Bq	1,97E-03	1,97E-03	1,67E-03	1,67E-03	1,30E-03	1,30E-03	1,47E-03	1,47E-03
Iron	Water	kg	x	x	1,80E-05	1,80E-05	x	x	x	x
Iron-59	Water	Bq	5,42E-04	5,42E-04	4,59E-04	4,59E-04	3,56E-04	3,56E-04	4,03E-04	4,03E-04

Iron, ion	Water	kg	8,91E-03	6,33E-02	4,08E-03	4,17E-02	8,52E-03	7,94E-02	6,47E-03	4,13E-02
Lactic acid	Water	kg	5,29E-07	5,29E-07	2,76E-08	2,76E-08	2,85E-09	2,85E-09	2,71E-09	2,71E-09
Lanthanum-140	Water	Bq	3,35E-03	3,35E-03	2,84E-03	2,84E-03	2,20E-03	2,20E-03	2,49E-03	2,49E-03
Lead-210	Water	Bq	1,69E+03	1,69E+03	1,17E+03	1,17E+03	3,70E+00	3,70E+00	2,29E+00	2,29E+00
Lithium, ion	Water	kg	2,26E-05	2,26E-05	1,02E-05	1,02E-05	4,46E-05	4,46E-05	7,42E-06	7,42E-06
Magnesium	Water	kg	8,65E-03	2,11E-01	2,99E-03	1,22E-01	3,82E-03	2,08E-01	1,68E-03	1,16E-01
Manganese	Water	kg	1,83E-04	1,76E-02	1,27E-04	1,20E-02	1,26E-04	1,78E-02	6,54E-05	9,90E-03
Methane, dibromo-	Water	kg	x	x	8,54E-15	8,54E-15	x	x	x	x
Molybdenum-99	Water	Bq	1,15E-03	1,15E-03	9,78E-04	9,78E-04	7,58E-04	7,58E-04	8,57E-04	8,57E-04
Nickel, ion	Water	kg	4,61E-05	3,35E-03	3,29E-05	2,84E-03	1,32E-05	4,12E-03	9,74E-06	1,03E-03
Niobium-95	Water	Bq	1,57E-02	1,57E-02	1,11E-02	1,11E-02	2,12E-02	2,12E-02	6,12E-03	6,12E-03
Nitrogen	Water	kg	5,05E-04	5,05E-04	5,09E-04	5,09E-04	3,37E-04	3,37E-04	5,25E-04	5,25E-04
Nitrogen, organic bound	Water	kg	1,11E-04	1,25E-04	1,01E-04	1,16E-04	1,88E-04	2,11E-04	4,65E-05	5,55E-05
Oils, unspecified	Water	kg	1,61E-02	1,61E-02	1,07E-02	1,07E-02	1,66E-02	1,66E-02	6,11E-03	6,11E-03
PAH, polycyclic aromatic hydrocarbons	Water	kg	1,61E-06	1,61E-06	1,06E-06	1,06E-06	1,70E-06	1,70E-06	6,26E-07	6,26E-07
Particulates, < 10 um	Water	kg	x	x	1,76E-11	1,76E-11	x	x	x	x
Particulates, > 10 um	Water	kg	x	x	1,71E-04	1,71E-04	x	x	x	x
Phosphorus	Water	kg	1,37E-03	1,37E-03	1,44E-03	1,44E-03	1,69E-05	1,69E-05	3,29E-05	3,29E-05
Polonium-210	Water	Bq	2,57E+03	2,57E+03	1,79E+03	1,79E+03	5,01E+00	5,01E+00	3,64E+00	3,64E+00
Potassium	Water	kg	x	x	1,85E-08	1,85E-08	x	x	x	x
Potassium-40	Water	Bq	2,05E+02	2,05E+02	1,43E+02	1,43E+02	1,77E+00	1,77E+00	-3,26E-02	-3,26E-02
Potassium, ion	Water	kg	7,30E-03	1,32E-01	3,41E-03	8,01E-02	4,28E-03	1,28E-01	2,09E-03	6,87E-02
Propene	Water	kg	8,33E-04	8,33E-04	7,01E-04	7,01E-04	6,67E-04	6,67E-04	4,36E-03	4,36E-03
Protactinium-234	Water	Bq	1,19E+00	1,19E+00	6,41E-01	6,41E-01	1,14E+00	1,14E+00	7,76E-01	7,76E-01
Radioactive species, alpha emitters	Water	Bq	1,57E+00	1,57E+00	1,34E+00	1,34E+00	3,00E-03	3,00E-03	3,16E-03	3,16E-03
Radioactive species, Nuclides, unspecified	Water	Bq	4,40E+02	4,40E+02	2,26E+02	2,26E+02	4,32E+02	4,32E+02	3,04E+02	3,04E+02

Radium-224	Water	Bq	1,31E+01	1,31E+01	8,28E+00	8,28E+00	1,30E+01	1,30E+01	4,61E+00	4,61E+00
Radium-228	Water	Bq	2,62E+01	2,62E+01	1,66E+01	1,66E+01	2,61E+01	2,61E+01	9,23E+00	9,23E+00
Rubidium	Water	kg	2,62E-06	2,62E-06	1,66E-06	1,66E-06	2,60E-06	2,60E-06	9,22E-07	9,22E-07
Ruthenium-103	Water	Bq	2,43E-04	2,43E-04	2,06E-04	2,06E-04	1,60E-04	1,60E-04	1,81E-04	1,81E-04
Scandium	Water	kg	1,19E-06	4,91E-05	6,49E-07	3,06E-05	1,28E-06	5,51E-05	8,83E-07	3,11E-05
Silicon	Water	kg	2,28E-03	8,17E-01	2,01E-03	7,90E-01	3,21E-03	1,25E+00	9,47E-04	2,71E-01
Silver, ion	Water	kg	2,94E-07	2,62E-06	1,88E-07	2,07E-06	3,52E-07	3,71E-06	1,20E-07	1,85E-06
Sodium-24	Water	Bq	8,73E-03	8,73E-03	7,40E-03	7,40E-03	5,74E-03	5,74E-03	6,49E-03	6,49E-03
Sodium, ion	Water	kg	4,04E-01	9,57E-01	1,68E-01	3,60E-01	2,23E-01	5,35E-01	8,72E-01	1,28E+00
Soil loss by erosion into water	Water	kg	1,80E+01	1,80E+01	1,06E+01	1,06E+01	x	x	x	x
Solids, inorganic	Water	kg	2,20E-02	2,20E-02	1,41E-02	1,41E-02	2,15E-02	2,15E-02	1,74E-02	1,74E-02
Solved solids	Water	kg	7,47E-03	7,47E-03	6,96E-03	6,96E-03	8,07E-03	8,07E-03	6,17E-03	6,17E-03
Strontium	Water	kg	5,49E-04	6,88E-03	3,48E-04	4,20E-03	5,51E-04	7,10E-03	2,06E-04	4,45E-03
Strontium-89	Water	Bq	2,86E-02	2,86E-02	2,25E-02	2,25E-02	2,74E-02	2,74E-02	1,69E-02	1,69E-02
Sulfate	Water	kg	1,43E+00	3,13E+00	1,01E+00	1,91E+00	1,40E-01	1,63E+00	1,26E-01	9,75E-01
Sulfide	Water	kg	1,91E-05	1,91E-05	1,65E-05	1,65E-05	3,97E-06	3,97E-06	3,23E-06	3,23E-06
Sulfite	Water	kg	2,89E-05	2,89E-05	1,52E-05	1,52E-05	3,32E-05	3,32E-05	1,13E-05	1,13E-05
Sulfur	Water	kg	5,16E-03	5,16E-03	7,63E-04	7,63E-04	1,01E-04	1,01E-04	7,32E-05	7,32E-05
Suspended solids, unspecified	Water	kg	1,91E-02	1,91E-02	1,65E-02	1,65E-02	1,41E-02	1,41E-02	1,19E-02	1,19E-02
Suspended substances, unspecified	Water	kg	x	x	x	x	x	x	x	x
Technetium-99m	Water	Bq	2,66E-02	2,66E-02	2,25E-02	2,25E-02	1,74E-02	1,74E-02	1,97E-02	1,97E-02
Tellurium-132	Water	Bq	6,68E-05	6,68E-05	5,66E-05	5,66E-05	4,39E-05	4,39E-05	4,96E-05	4,96E-05
Thorium-228	Water	Bq	7,30E+01	7,30E+01	4,75E+01	4,75E+01	5,20E+01	5,20E+01	1,85E+01	1,85E+01
Thorium-230	Water	Bq	1,63E+02	1,63E+02	8,74E+01	8,74E+01	1,55E+02	1,55E+02	1,06E+02	1,06E+02
Thorium-232	Water	Bq	2,79E-01	2,79E-01	1,53E-01	1,53E-01	2,72E-01	2,72E-01	-6,39E-02	-6,39E-02
Thorium-234	Water	Bq	1,19E+00	1,19E+00	6,41E-01	6,41E-01	1,14E+00	1,14E+00	7,76E-01	7,76E-01

Tin, ion	Water	kg	1,98E-07	2,06E-04	1,59E-07	1,87E-04	2,62E-07	2,19E-04	3,31E-06	1,43E-04
Titanium	Water	kg	x	x	1,16E-09	1,16E-09	x	x	x	x
Titanium, ion	Water	kg	2,48E-05	2,44E-02	3,20E-05	2,92E-02	7,17E-05	5,27E-02	1,34E-05	1,87E-02
TOC, Total Organic Carbon	Water	kg	1,99E-02	9,32E-02	2,05E-02	1,18E-01	1,93E-02	1,15E-01	6,83E-02	1,53E-01
Tributyltin compounds	Water	kg	1,09E-06	1,09E-06	1,34E-06	1,34E-06	1,13E-06	1,13E-06	1,94E-07	1,94E-07
Tungsten	Water	kg	2,07E-06	4,89E-05	1,29E-06	4,11E-05	2,53E-06	7,20E-05	1,45E-06	3,69E-05
Uranium alpha	Water	Bq	6,87E+01	6,87E+01	3,69E+01	3,69E+01	6,55E+01	6,55E+01	4,47E+01	4,47E+01
Vanadium, ion	Water	kg	8,80E-06	1,80E-03	9,19E-06	2,17E-03	1,63E-05	3,90E-03	1,35E-05	3,14E-03
VOC, volatile organic compounds, unspecified origin	Water	kg	9,45E-05	9,45E-05	5,96E-05	5,96E-05	9,38E-05	9,38E-05	3,42E-05	3,42E-05
Water	Water	kg	4,28E+01	4,28E+01	5,83E+01	5,83E+01	x	x	x	x
Zinc-65	Water	Bq	1,18E-01	1,18E-01	1,00E-01	1,00E-01	7,78E-02	7,78E-02	8,80E-02	8,80E-02
Zinc, ion	Water	kg	2,24E-04	3,73E-03	1,34E-04	2,79E-03	8,76E-05	4,58E-03	4,00E-05	2,34E-03
Zirconium-95	Water	Bq	1,37E-03	1,37E-03	1,16E-03	1,16E-03	9,01E-04	9,01E-04	1,02E-03	1,02E-03
Calcium fluoride waste	Afval	kg	x	x	2,63E-08	2,63E-08	x	x	x	x
Construction waste	Afval	kg	x	x	1,93E-04	1,93E-04	x	x	x	x
Mineral waste, from mining	Afval	kg	x	x	1,54E-01	1,54E-01	x	x	x	x
Radioactive tailings	Afval	kg	x	x	4,61E-05	4,61E-05	x	x	x	x
Rejects	Afval	kg	x	x	1,26E-04	1,26E-04	x	x	x	x
Slag (uranium conversion)	Afval	kg	x	x	1,74E-07	1,74E-07	x	x	x	x
Slags	Afval	kg	x	x	8,18E-06	8,18E-06	x	x	x	x
Waste returned to mine	Afval	kg	x	x	1,37E-05	1,37E-05	x	x	x	x
Waste, nuclear, unspecified/kg	Afval	kg	x	x	4,65E-07	4,65E-07	x	x	x	x
Aluminium	Soil	kg	6,59E-04	6,59E-04	7,75E-04	7,75E-04	1,40E-04	1,40E-04	7,38E-05	7,38E-05
Ammonia	Soil	kg	x	x	2,25E-06	2,25E-06	x	x	x	x
Boron	Soil	kg	6,06E-06	6,06E-06	5,20E-06	5,20E-06	1,05E-05	1,05E-05	3,24E-06	3,24E-06
Bromide	Soil	kg	x	x	6,62E-10	6,62E-10	x	x	x	x

Calcium	Soil	kg	7,46E-03	7,46E-03	9,57E-03	9,57E-03	5,58E-04	5,58E-04	2,66E-04	2,66E-04
Carbon	Soil	kg	1,32E-03	1,32E-03	7,57E-04	7,57E-04	5,07E-04	5,07E-04	4,22E-04	4,22E-04
Chloride	Soil	kg	2,70E-03	2,70E-03	2,35E-03	2,35E-03	3,34E-03	3,34E-03	1,57E-03	1,57E-03
Chlorimuron-ethyl	Soil	kg	x	x	x	x	x	x	x	x
Chromium, ion	Soil	kg	x	x	2,29E-14	2,29E-14	x	x	x	x
Cloransulam-methyl	Soil	kg	x	x	x	x	x	x	x	x
Diflufenzopyr-sodium	Soil	kg	x	x	x	x	x	x	x	x
Fenoxaprop	Soil	kg	x	x	x	x	x	x	x	x
Fenpropimorph	Soil	kg	x	x	x	x	x	x	x	x
Fluoride	Soil	kg	2,50E-05	2,50E-05	2,11E-05	2,11E-05	4,16E-05	4,16E-05	7,17E-06	7,17E-06
Foramsulfuron	Soil	kg	x	x	x	x	x	x	x	x
Glufosinate	Soil	kg	x	x	x	x	x	x	x	x
Heat, waste	Soil	MJ	2,18E+00	2,18E+00	1,75E+00	1,75E+00	1,50E+00	1,50E+00	6,24E-01	6,24E-01
Iron	Soil	kg	1,65E-03	1,65E-03	1,75E-03	1,75E-03	9,52E-04	9,52E-04	1,21E-03	1,21E-03
Magnesium	Soil	kg	8,96E-04	8,96E-04	1,12E-03	1,12E-03	1,08E-04	1,08E-04	5,19E-05	5,19E-05
Manganese	Soil	kg	4,87E-04	4,87E-04	6,49E-04	6,49E-04	5,72E-06	5,72E-06	6,63E-07	6,63E-07
Mesotrione	Soil	kg	x	x	x	x	x	x	x	x
Metaldehyde	Soil	kg	7,42E-05	7,42E-05	9,59E-10	9,59E-10	1,60E-09	1,60E-09	6,60E-10	6,60E-10
Oils, biogenic	Soil	kg	2,72E-05	2,72E-05	2,39E-05	2,39E-05	2,81E-05	2,81E-05	2,34E-05	2,34E-05
Oils, unspecified	Soil	kg	1,80E-02	1,80E-02	1,69E-02	1,69E-02	1,70E-02	1,70E-02	6,05E-03	6,05E-03
Paraquat	Soil	kg	x	x	x	x	x	x	x	x
Phosphorus	Soil	kg	2,43E-04	2,43E-04	3,21E-04	3,21E-04	6,68E-06	6,68E-06	2,12E-06	2,12E-06
Potassium	Soil	kg	1,36E-03	1,36E-03	1,79E-03	1,79E-03	4,65E-05	4,65E-05	1,63E-05	1,63E-05
Primisulfuron	Soil	kg	x	x	x	x	x	x	x	x
Silicon	Soil	kg	2,01E-03	2,01E-03	2,68E-03	2,68E-03	3,35E-05	3,35E-05	2,41E-05	2,41E-05
Sodium	Soil	kg	3,55E-04	3,55E-04	2,45E-04	2,45E-04	9,82E-04	9,82E-04	1,74E-04	1,74E-04

Strontium	Soil	kg	1,55E-06	1,55E-06	2,42E-06	2,42E-06	1,31E-06	1,31E-06	6,30E-07	6,30E-07
Sulfate	Soil	kg	x	x	7,10E-08	7,10E-08	x	x	x	x
Sulfide	Soil	kg	x	x	4,26E-07	4,26E-07	x	x	x	x
Sulfosate	Soil	kg	x	x	x	x	x	x	x	x
Sulfur	Soil	kg	3,19E-04	3,19E-04	3,62E-04	3,62E-04	8,82E-05	8,82E-05	5,05E-05	5,05E-05
Tebutam	Soil	kg	3,11E-04	3,11E-04	4,02E-09	4,02E-09	6,71E-09	6,71E-09	2,77E-09	2,77E-09
Titanium	Soil	kg	3,32E-05	3,32E-05	4,45E-05	4,45E-05	2,37E-08	2,37E-08	-1,44E-07	-1,44E-07

Table F 6 Non-Characterized Flows – EWP.

			EWP							
			BioBuild Demonstrator		***BioBuild Optimized***		***Aluminium***		***GRP***	
Substance	**Compartment**	**Unit**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**
Air	Raw	kg	x	x	4,97E+01	4,97E+01	x	x	x	x
Anhydrite	Raw	kg	5,81E-05	5,81E-05	5,34E-05	5,34E-05	1,38E-05	1,38E-05	5,71E-05	5,71E-05
Baryte	Raw	kg	6,56E-02	6,56E-02	5,84E-02	5,84E-02	5,14E-02	5,14E-02	5,70E-02	5,70E-02
Basalt	Raw	kg	8,92E+00	8,92E+00	8,92E+00	8,92E+00	8,92E+00	8,92E+00	8,92E+00	8,92E+00
Borax	Raw	kg	3,04E-04	3,04E-04	3,04E-04	3,04E-04	3,04E-04	3,04E-04	3,54E-04	3,54E-04
Bromine	Raw	kg	3,22E-03	3,22E-03	6,31E-04	6,31E-04	6,99E-06	6,99E-06	6,95E-06	6,95E-06
Calcite	Raw	kg	1,11E+01	1,11E+01	1,11E+01	1,11E+01	1,02E+01	1,02E+01	1,26E+01	1,26E+01
Calcium chloride	Raw	kg	x	x	1,09E-13	1,09E-13	x	x	x	x
Chrysotile	Raw	kg	3,31E-05	3,31E-05	4,34E-05	4,34E-05	1,86E-05	1,86E-05	9,72E-05	9,72E-05
Cinnabar	Raw	kg	4,19E-06	4,19E-06	5,18E-06	5,18E-06	2,82E-06	2,82E-06	1,01E-05	1,01E-05
Clay	Raw	kg	3,84E+00	3,84E+00	3,82E+00	3,82E+00	3,71E+00	3,71E+00	7,21E+00	7,21E+00
Clay, bentonite	Raw	kg	3,00E-02	3,00E-02	2,54E-02	2,54E-02	2,42E-02	2,42E-02	2,46E-02	2,46E-02
Colemanite	Raw	kg	3,46E-04	3,46E-04	2,73E-04	2,73E-04	2,30E-04	2,30E-04	3,37E+00	3,37E+00
Copper, 0.99% in sulfide, Cu 0.36% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	4,47E-03	4,47E-03	4,21E-03	4,21E-03	4,34E-03	4,34E-03	3,84E-03	3,84E-03

Copper, 1.18% in sulfide, Cu 0.39% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	2,15E-02	2,15E-02	2,05E-02	2,05E-02	2,40E-02	2,40E-02	2,11E-02	2,11E-02
Copper, 1.42% in sulfide, Cu 0.81% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	5,70E-03	5,70E-03	5,43E-03	5,43E-03	6,36E-03	6,36E-03	5,60E-03	5,60E-03
Copper, 2.19% in sulfide, Cu 1.83% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	2,84E-02	2,84E-02	2,70E-02	2,70E-02	3,16E-02	3,16E-02	2,79E-02	2,79E-02
Diatomite	Raw	kg	1,18E-08	1,18E-08	7,77E-09	7,77E-09	6,43E-09	6,43E-09	6,69E-09	6,69E-09
Dolomite	Raw	kg	1,84E-01	1,84E-01	1,84E-01	1,84E-01	1,83E-01	1,83E-01	1,83E-01	1,83E-01
Feldspar	Raw	kg	3,38E-04	3,38E-04	3,38E-04	3,38E-04	3,38E-04	3,38E-04	3,38E-04	3,38E-04
Fluorine, 4.5% in apatite, 1% in crude ore, in ground	Raw	kg	1,21E-03	1,21E-03	2,07E-03	2,07E-03	1,59E-04	1,59E-04	1,60E-04	1,60E-04
Fluorine, 4.5% in apatite, 3% in crude ore, in ground	Raw	kg	2,64E-01	2,64E-01	1,87E-01	1,87E-01	2,91E-04	2,91E-04	2,92E-04	2,92E-04
Gold, Au 1.1E-4%, Ag 4.2E-3%, in ore, in ground	Raw	kg	7,67E-08	7,67E-08	7,36E-08	7,36E-08	4,88E-08	4,88E-08	8,67E-08	8,67E-08
Gold, Au 1.3E-4%, Ag 4.6E-5%, in ore, in ground	Raw	kg	1,41E-07	1,41E-07	1,35E-07	1,35E-07	8,94E-08	8,94E-08	1,59E-07	1,59E-07
Gold, Au 2.1E-4%, Ag 2.1E-4%, in ore, in ground	Raw	kg	2,57E-07	2,57E-07	2,47E-07	2,47E-07	1,64E-07	1,64E-07	2,91E-07	2,91E-07
Gold, Au 4.3E-4%, in ore, in ground	Raw	kg	6,37E-08	6,37E-08	6,12E-08	6,12E-08	4,05E-08	4,05E-08	7,20E-08	7,20E-08
Gold, Au 4.9E-5%, in ore, in ground	Raw	kg	1,53E-07	1,53E-07	1,47E-07	1,47E-07	9,71E-08	9,71E-08	1,73E-07	1,73E-07
Gold, Au 6.7E-4%, in ore, in ground	Raw	kg	2,36E-07	2,36E-07	2,27E-07	2,27E-07	1,50E-07	1,50E-07	2,67E-07	2,67E-07
Gold, Au 7.1E-4%, in ore, in ground	Raw	kg	2,67E-07	2,67E-07	2,56E-07	2,56E-07	1,69E-07	1,69E-07	3,01E-07	3,01E-07
Gold, Au 9.7E-4%, Ag 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	1,60E-08	1,60E-08	1,53E-08	1,53E-08	1,02E-08	1,02E-08	1,81E-08	1,81E-08
Granite	Raw	kg	3,34E-09	3,34E-09	3,32E-09	3,32E-09	1,41E-10	1,41E-10	1,44E-10	1,44E-10
Gravel	Raw	kg	8,28E+01	8,28E+01	8,19E+01	8,19E+01	8,06E+01	8,06E+01	8,20E+01	8,20E+01
Gypsum	Raw	kg	9,22E-04	9,22E-04	9,28E-04	9,28E-04	1,76E-03	1,76E-03	9,29E-04	9,29E-04
Kaolinite	Raw	kg	6,67E-04	6,67E-04	6,80E-04	6,80E-04	6,25E-04	6,25E-04	5,02E-04	5,02E-04
Kieserite	Raw	kg	7,36E-06	7,36E-06	7,43E-06	7,43E-06	5,01E-06	5,01E-06	4,70E-06	4,70E-06
Magnesite	Raw	kg	2,29E-02	2,29E-02	2,20E-02	2,20E-02	2,04E-02	2,04E-02	2,13E-02	2,13E-02
Magnesium chloride	Raw	kg	x	x	2,23E-02	2,23E-02	x	x	x	x
Metamorphous rock, graphite containing	Raw	kg	1,56E-02	1,56E-02	3,68E-01	3,68E-01	2,98E-02	2,98E-02	1,57E-02	1,57E-02
Molybdenum, 0.010% in sulfide, Mo 8.2E-3% and Cu 1.83% in crude ore, in ground	Raw	kg	5,27E-04	5,27E-04	5,02E-04	5,02E-04	5,87E-04	5,87E-04	5,18E-04	5,18E-04

Molybdenum, 0.014% in sulfide, Mo 8.2E-3% and Cu 0.81% in crude ore, in ground	Raw	kg	7,49E-05	7,49E-05	7,13E-05	7,13E-05	8,35E-05	8,35E-05	7,35E-05	7,35E-05
Molybdenum, 0.022% in sulfide, Mo 8.2E-3% and Cu 0.36% in crude ore, in ground	Raw	kg	9,95E-05	9,95E-05	9,86E-05	9,86E-05	8,97E-05	8,97E-05	9,69E-05	9,69E-05
Molybdenum, 0.025% in sulfide, Mo 8.2E-3% and Cu 0.39% in crude ore, in ground	Raw	kg	2,74E-04	2,74E-04	2,61E-04	2,61E-04	3,06E-04	3,06E-04	2,69E-04	2,69E-04
Natural aggregate	Raw	kg	x	x	4,29E-04	4,29E-04	x	x	x	x
Nickel, 1.13% in sulfide, Ni 0.76% and Cu 0.76% in crude ore, in ground	Raw	kg	1,23E-03	1,23E-03	1,17E-03	1,17E-03	6,93E-04	6,93E-04	7,47E-04	7,47E-04
Nickel, 1.98% in silicates, 1.04% in crude ore, in ground	Raw	kg	8,31E-02	8,31E-02	6,88E-02	6,88E-02	5,61E-02	5,61E-02	7,01E-02	7,01E-02
Nitrogen, in air	Raw	kg	x	x	-6,55E-11	-6,55E-11	x	x	x	x
Olivine	Raw	kg	2,61E-05	2,61E-05	2,46E-05	2,46E-05	1,03E-05	1,03E-05	2,73E-05	2,73E-05
Oxygen, in air	Raw	kg	x	x	-1,72E-04	-1,72E-04	x	x	x	x
Pd, Pd 2.0E-4%, Pt 4.8E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	3,81E-08	3,81E-08	3,53E-08	3,53E-08	4,33E-08	4,33E-08	3,36E-08	3,36E-08
Pd, Pd 7.3E-4%, Pt 2.5E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	9,15E-08	9,15E-08	8,48E-08	8,48E-08	1,04E-07	1,04E-07	8,08E-08	8,08E-08
Phosphorus, 18% in apatite, 4% in crude ore, in ground	Raw	kg	4,83E-03	4,83E-03	8,27E-03	8,27E-03	6,35E-04	6,35E-04	6,41E-04	6,41E-04
Potassium chloride	Raw	kg	1,19E+00	1,19E+00	2,93E-01	2,93E-01	2,44E-02	2,44E-02	2,45E-02	2,45E-02
Pt, Pt 2.5E-4%, Pd 7.3E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	7,17E-10	7,17E-10	4,79E-10	4,79E-10	8,30E-10	8,30E-10	4,92E-10	4,92E-10
Pt, Pt 4.8E-4%, Pd 2.0E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	2,57E-09	2,57E-09	1,72E-09	1,72E-09	2,97E-09	2,97E-09	1,76E-09	1,76E-09
Pumice	Raw	kg	x	x	5,69E-09	5,69E-09	x	x	x	x
Rh, Rh 2.0E-5%, Pt 2.5E-4%, Pd 7.3E-4%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	5,55E-10	5,55E-10	4,77E-10	4,77E-10	7,81E-10	7,81E-10	3,96E-10	3,96E-10
Rh, Rh 2.4E-5%, Pt 4.8E-4%, Pd 2.0E-4%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	1,74E-09	1,74E-09	1,50E-09	1,50E-09	2,45E-09	2,45E-09	1,24E-09	1,24E-09
Sand	Raw	kg	2,63E-03	2,63E-03	2,54E-03	2,54E-03	1,38E-03	1,38E-03	2,05E-03	2,05E-03
Shale	Raw	kg	1,64E-04	1,64E-04	1,51E-04	1,51E-04	3,92E-05	3,92E-05	1,62E-04	1,62E-04
Silver, 0.007% in sulfide, Ag 0.004%, Pb, Zn, Cd, In, in ground	Raw	kg	1,71E-06	1,71E-06	1,64E-06	1,64E-06	1,09E-06	1,09E-06	1,93E-06	1,93E-06
Silver, 3.2ppm in sulfide, Ag 1.2ppm, Cu and Te, in crude ore, in ground	Raw	kg	1,22E-06	1,22E-06	1,17E-06	1,17E-06	7,78E-07	7,78E-07	1,38E-06	1,38E-06
Silver, Ag 2.1E-4%, Au 2.1E-4%, in ore, in ground	Raw	kg	1,13E-07	1,13E-07	1,08E-07	1,08E-07	7,18E-08	7,18E-08	1,27E-07	1,27E-07
Silver, Ag 4.2E-3%, Au 1.1E-4%, in ore, in ground	Raw	kg	2,57E-07	2,57E-07	2,46E-07	2,46E-07	1,64E-07	1,64E-07	2,90E-07	2,90E-07

Silver, Ag 4.6E-5%, Au 1.3E-4%, in ore, in ground	Raw	kg	2,52E-07	2,52E-07	2,41E-07	2,41E-07	1,61E-07	1,61E-07	2,85E-07	2,85E-07
Silver, Ag 9.7E-4%, Au 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	1,67E-07	1,67E-07	1,59E-07	1,59E-07	1,06E-07	1,06E-07	1,88E-07	1,88E-07
Slate	Raw	kg	x	x	9,58E-17	9,58E-17	x	x	x	x
Sodium nitrate	Raw	kg	5,90E-09	5,90E-09	5,85E-09	5,85E-09	1,42E-09	1,42E-09	1,38E-09	1,38E-09
Stibnite	Raw	kg	1,23E-09	1,23E-09	8,07E-10	8,07E-10	6,68E-10	6,68E-10	6,96E-10	6,96E-10
TiO2, 54% in ilmenite, 2.6% in crude ore, in ground	Raw	kg	6,04E-02	6,04E-02	2,91E-01	2,91E-01	2,60E-02	2,60E-02	4,39E-02	4,39E-02
TiO2, 95% in rutile, 0.40% in crude ore, in ground	Raw	kg	1,82E-07	1,82E-07	1,70E-07	1,70E-07	1,60E-07	1,60E-07	1,64E-07	1,64E-07
Ulexite	Raw	kg	3,30E-06	3,30E-06	2,19E-07	2,19E-07	1,36E-06	1,36E-06	2,77E-06	2,77E-06
Volume occupied, final repository for low-active radioactive waste	Raw	m3	1,29E-06	1,29E-06	9,71E-07	9,71E-07	1,10E-06	1,10E-06	1,25E-06	1,25E-06
Volume occupied, final repository for radioactive waste	Raw	m3	3,23E-07	3,23E-07	2,42E-07	2,42E-07	2,77E-07	2,77E-07	3,15E-07	3,15E-07
Volume occupied, reservoir	Raw	m3y	1,29E+00	1,29E+00	1,12E+00	1,12E+00	1,45E+00	1,45E+00	1,29E+00	1,29E+00
Volume occupied, underground deposit	Raw	m3	4,91E-04	4,91E-04	4,91E-04	4,91E-04	9,65E-04	9,65E-04	4,91E-04	4,91E-04
Water, rain	Raw	m3	3,34E-01	3,34E-01	x	x	x	x	x	x
Water, salt, ocean	Raw	m3	5,52E-02	5,52E-02	4,42E-02	4,42E-02	4,76E-02	4,76E-02	5,60E-02	5,60E-02
Water, salt, sole	Raw	m3	1,32E+00	1,32E+00	2,83E-01	2,83E-01	1,02E-02	1,02E-02	9,71E-03	9,71E-03
Water, turbine use, unspecified natural origin	Raw	m3	6,94E+02	6,94E+02	6,01E+02	6,01E+02	6,96E+02	6,96E+02	6,06E+02	6,06E+02
Wood, hard, standing	Raw	m3	3,30E-02	3,30E-02	3,29E-02	3,29E-02	3,31E-02	3,31E-02	3,29E-02	3,29E-02
Wood, primary forest, standing	Raw	m3	1,63E-04	1,63E-04	1,62E-04	1,62E-04	1,57E-04	1,57E-04	1,57E-04	1,57E-04
Wood, soft, standing	Raw	m3	1,71E-01	1,71E-01	1,71E-01	1,71E-01	1,68E-01	1,68E-01	1,68E-01	1,68E-01
Wood, unspecified, standing/m3	Raw	m3	1,07E-06	1,07E-06	1,05E-06	1,05E-06	7,89E-07	7,89E-07	3,96E-06	3,96E-06
2-Aminopropanol	Air	kg	1,69E-07	1,69E-07	2,92E-08	2,92E-08	6,96E-11	6,96E-11	6,95E-11	6,95E-11
2-Nitrobenzoic acid	Air	kg	3,58E-07	3,58E-07	2,67E-08	2,67E-08	1,26E-10	1,26E-10	1,25E-10	1,25E-10
Acidity, unspecified	Air	kg	x	x	1,49E-09	1,49E-09	x	x	x	x
Actinides, radioactive, unspecified	Air	Bq	9,90E-01	9,90E-01	8,54E-01	8,54E-01	7,16E-02	7,16E-02	4,31E-02	4,31E-02
Aerosols, radioactive, unspecified	Air	Bq	2,95E-01	2,95E-01	2,25E-01	2,25E-01	2,35E-01	2,35E-01	2,66E-01	2,66E-01
Aldehydes, unspecified	Air	kg	3,38E-06	3,38E-06	3,08E-06	3,08E-06	1,24E-06	1,24E-06	7,64E-06	7,64E-06

Aluminium	Air	kg	5,82E-03	6,35E-03	5,34E-03	5,74E-03	7,13E-03	7,58E-03	4,80E-03	5,30E-03
Ammonium carbonate	Air	kg	2,56E-07	2,56E-07	2,95E-07	2,95E-07	2,53E-07	2,53E-07	2,64E-07	2,64E-07
Anthranilic acid	Air	kg	1,74E-07	1,74E-07	2,00E-08	2,00E-08	9,17E-11	9,17E-11	9,15E-11	9,15E-11
Argon-41	Air	Bq	8,01E+01	8,01E+01	4,44E+01	4,44E+01	5,78E+01	5,78E+01	7,66E+01	7,66E+01
Arsenic trioxide	Air	kg	x	x	1,60E-14	1,60E-14	x	x	x	x
Arsine	Air	kg	2,51E-13	2,51E-13	1,57E-12	1,57E-12	1,60E-13	1,60E-13	2,84E-13	2,84E-13
Barium-140	Air	Bq	3,25E-03	3,25E-03	2,92E-03	2,92E-03	2,70E-03	2,70E-03	2,92E-03	2,92E-03
Benzal chloride	Air	kg	6,46E-13	6,46E-13	5,76E-13	5,76E-13	2,71E-13	2,71E-13	1,46E-13	1,46E-13
Benzo(b)fluoranthene	Air	kg	x	x	2,93E-12	2,93E-12	x	x	x	x
Benzo(g,h,i)perylene	Air	kg	x	x	1,46E-12	1,46E-12	x	x	x	x
Boron	Air	kg	3,73E-04	3,74E-04	2,82E-04	2,82E-04	3,24E-04	3,25E-04	3,74E-04	3,75E-04
Boron trifluoride	Air	kg	3,44E-15	3,44E-15	3,30E-15	3,30E-15	2,19E-15	2,19E-15	3,89E-15	3,89E-15
Bromine	Air	kg	6,27E-05	6,27E-05	5,47E-05	5,47E-05	5,55E-05	5,55E-05	6,10E-05	6,10E-05
Butene	Air	kg	1,97E-05	1,97E-05	1,50E-05	1,50E-05	1,29E-05	1,29E-05	1,22E-05	1,22E-05
Calcium	Air	kg	2,33E-03	2,50E-03	3,00E-03	3,13E-03	2,57E-03	2,72E-03	2,25E-03	2,41E-03
Carbon dioxide, land transformation	Air	kg	2,46E-01	2,46E-01	1,42E+00	1,42E+00	2,36E-01	2,36E-01	2,37E-01	2,37E-01
Carbon monoxide, biogenic	Air	kg	5,04E-02	5,04E-02	7,83E-02	7,83E-02	5,25E-02	5,25E-02	4,92E-02	4,92E-02
Carbon monoxide, fossil	Air	kg	3,99E-01	3,99E-01	3,78E-01	3,78E-01	3,68E-01	3,68E-01	3,77E-01	3,77E-01
Cerium-141	Air	Bq	7,89E-04	7,89E-04	7,07E-04	7,07E-04	6,54E-04	6,54E-04	7,08E-04	7,08E-04
Chloride	Air	kg	x	x	1,34E-08	1,34E-08	x	x	x	x
Chlorine	Air	kg	7,54E-04	7,60E-04	5,69E-04	5,74E-04	3,53E-04	3,59E-04	3,68E-03	3,69E-03
Chlorosilane, trimethyl-	Air	kg	4,41E-06	4,41E-06	4,41E-06	4,41E-06	4,40E-06	4,40E-06	4,41E-06	4,41E-06
Chromium-51	Air	Bq	5,05E-05	5,05E-05	4,53E-05	4,53E-05	4,19E-05	4,19E-05	4,53E-05	4,53E-05
Chromium, ion	Air	kg	x	x	4,70E-12	4,70E-12	x	x	x	x
Chrysene	Air	kg	x	x	4,03E-12	4,03E-12	x	x	x	x
Cyanide	Air	kg	1,89E-04	1,89E-04	2,06E-04	2,06E-04	9,43E-05	9,43E-05	1,23E-04	1,23E-04

Cyanoacetic acid	Air	kg	1,29E-07	1,29E-07	-3,33E-08	-3,33E-08	6,99E-10	6,99E-10	6,98E-10	6,98E-10
Ethyl cellulose	Air	kg	7,83E-08	7,83E-08	7,51E-08	7,51E-08	4,98E-08	4,98E-08	8,85E-08	8,85E-08
Fluoride	Air	kg	x	x	1,89E-08	1,89E-08	x	x	x	x
Fluorine	Air	kg	2,05E-05	5,26E-05	2,07E-05	4,48E-05	1,98E-05	4,67E-05	1,96E-05	5,03E-05
Fluosilicic acid	Air	kg	1,88E-05	1,88E-05	1,87E-05	1,87E-05	2,93E-05	2,93E-05	1,87E-05	1,87E-05
Heat, waste	Air	MJ	3,51E+03	3,51E+03	3,17E+03	3,17E+03	2,63E+03	2,63E+03	2,93E+03	2,93E+03
Helium	Air	kg	5,25E-05	5,25E-05	4,29E-05	4,29E-05	3,58E-05	3,58E-05	3,43E-05	3,43E-05
Hydrocarbons, aliphatic, alkanes, cyclic	Air	kg	-5,93E-06	-5,93E-06	-4,34E-06	-4,34E-06	1,04E-05	1,04E-05	4,73E-05	4,73E-05
Hydrocarbons, aliphatic, alkanes, unspecified	Air	kg	1,21E-03	1,21E-03	3,46E-03	3,46E-03	1,44E-03	1,44E-03	2,24E-03	2,24E-03
Hydrocarbons, aliphatic, unsaturated	Air	kg	1,18E-03	1,18E-03	1,18E-03	1,18E-03	1,13E-03	1,13E-03	1,14E-03	1,14E-03
Hydrocarbons, aromatic	Air	kg	1,46E-03	1,46E-03	1,26E-03	1,26E-03	1,30E-04	1,30E-04	1,06E-03	1,06E-03
Hydrocarbons, chlorinated	Air	kg	5,72E-04	5,72E-04	5,87E-04	5,87E-04	1,08E-03	1,08E-03	5,70E-04	5,70E-04
Hydrogen	Air	kg	3,52E-03	3,52E-03	3,90E-03	3,90E-03	2,39E-03	2,39E-03	4,04E-03	4,04E-03
Hydrogen bromide	Air	kg	x	x	1,35E-10	1,35E-10	x	x	x	x
Hydrogen chloride	Air	kg	8,38E-03	8,38E-03	7,82E-03	7,82E-03	7,32E-03	7,32E-03	8,59E-03	8,59E-03
Hydrogen cyanide	Air	kg	x	x	2,09E-09	2,09E-09	x	x	x	x
Hydrogen fluoride	Air	kg	1,41E-03	1,41E-03	1,18E-03	1,18E-03	1,36E-03	1,36E-03	1,38E-03	1,38E-03
Hydrogen iodide	Air	kg	x	x	1,45E-13	1,45E-13	x	x	x	x
Hydrogen peroxide	Air	kg	5,80E-08	5,80E-08	5,57E-08	5,57E-08	3,69E-08	3,69E-08	6,56E-08	6,56E-08
Hydrogen sulfide	Air	kg	6,04E-04	6,04E-04	5,74E-04	5,74E-04	6,94E-04	6,94E-04	6,37E-04	6,37E-04
Indeno(1,2,3-cd)pyrene	Air	kg	x	x	1,09E-12	1,09E-12	x	x	x	x
Iodine	Air	kg	1,99E-05	1,99E-05	1,49E-05	1,49E-05	1,76E-05	1,76E-05	2,03E-05	2,03E-05
Iodine-135	Air	Bq	2,75E-01	2,75E-01	2,36E-01	2,36E-01	2,42E-03	2,42E-03	2,55E-03	2,55E-03
Iron	Air	kg	1,47E-04	7,20E-04	1,50E-04	5,80E-04	1,30E-04	6,11E-04	1,86E-04	7,33E-04
Isocyanic acid	Air	kg	6,08E-07	6,08E-07	4,92E-07	4,92E-07	4,78E-07	4,78E-07	5,54E-07	5,54E-07
Krypton-85m	Air	Bq	5,08E+01	5,08E+01	1,06E+04	1,06E+04	4,16E+01	4,16E+01	4,58E+01	4,58E+01

Krypton-87	Air	Bq	1,34E+01	1,34E+01	1,09E+01	1,09E+01	1,08E+01	1,08E+01	1,22E+01	1,22E+01
Krypton-88	Air	Bq	1,61E+01	1,61E+01	1,36E+01	1,36E+01	1,31E+01	1,31E+01	1,46E+01	1,46E+01
Krypton-89	Air	Bq	6,05E+00	6,05E+00	5,36E+00	5,36E+00	5,00E+00	5,00E+00	5,44E+00	5,44E+00
Lactic acid	Air	kg	2,90E-07	2,90E-07	1,33E-08	1,33E-08	2,38E-09	2,38E-09	2,38E-09	2,38E-09
Lanthanum-140	Air	Bq	2,78E-04	2,78E-04	2,49E-04	2,49E-04	2,30E-04	2,30E-04	2,49E-04	2,49E-04
Lead compounds	Air	kg	x	x	9,37E-15	9,37E-15	x	x	x	x
Magnesium	Air	kg	2,65E-04	3,18E-04	2,76E-04	3,15E-04	2,40E-04	2,84E-04	2,87E-04	3,37E-04
Manganese	Air	kg	7,29E-05	8,48E-05	7,30E-05	8,19E-05	7,04E-05	8,03E-05	7,02E-05	8,15E-05
Methanesulfonic acid	Air	kg	1,31E-07	1,31E-07	-3,37E-08	-3,37E-08	7,07E-10	7,07E-10	7,05E-10	7,05E-10
Methyl borate	Air	kg	1,02E-07	1,02E-07	1,69E-08	1,69E-08	4,14E-11	4,14E-11	4,01E-11	4,01E-11
Niobium-95	Air	Bq	3,07E-06	3,07E-06	2,75E-06	2,75E-06	2,55E-06	2,55E-06	2,76E-06	2,76E-06
Nitrogen	Air	kg	x	x	4,75E-04	4,75E-04	x	x	x	x
Noble gases, radioactive, unspecified	Air	Bq	1,06E+07	1,06E+07	7,91E+06	7,91E+06	9,28E+06	9,28E+06	1,06E+07	1,06E+07
Oxygen	Air	kg	x	x	2,99E-05	2,99E-05	x	x	x	x
Ozone	Air	kg	1,47E-04	1,47E-04	1,29E-04	1,29E-04	1,93E-04	1,93E-04	1,97E-04	1,97E-04
PAH, polycyclic aromatic hydrocarbons	Air	kg	6,88E-05	6,88E-05	6,33E-05	6,33E-05	9,07E-05	9,07E-05	6,28E-05	6,28E-05
Palladium	Air	kg	x	x	3,01E-18	3,01E-18	x	x	x	x
Particulates, > 10 um	Air	kg	1,32E-01	1,34E-01	1,25E-01	1,26E-01	1,17E-01	1,17E-01	1,20E-01	1,21E-01
Particulates, > 2.5 um, and < 10um	Air	kg	8,99E-02	9,06E-02	8,70E-02	8,75E-02	8,00E-02	8,05E-02	8,36E-02	8,42E-02
Particulates, unspecified	Air	kg	2,04E-04	2,04E-04	1,75E-04	1,75E-04	x	x	x	x
Phosphine	Air	kg	1,86E-11	1,86E-11	1,79E-11	1,79E-11	1,19E-11	1,19E-11	2,11E-11	2,11E-11
Phosphorus	Air	kg	1,27E-04	1,28E-04	1,32E-04	1,33E-04	1,24E-04	1,25E-04	1,20E-04	1,21E-04
Platinum	Air	kg	7,01E-12	7,01E-12	2,66E-12	2,66E-12	3,57E-12	3,57E-12	5,27E-12	5,27E-12
Potassium	Air	kg	8,48E-03	8,57E-03	8,66E-03	8,73E-03	8,18E-03	8,25E-03	8,18E-03	8,27E-03
Potassium-40	Air	Bq	2,01E+00	2,01E+00	1,68E+00	1,68E+00	1,44E+00	1,44E+00	1,70E+00	1,70E+00
Protactinium-234	Air	Bq	2,15E-01	2,15E-01	1,69E-01	1,69E-01	1,35E-01	1,35E-01	1,51E-01	1,51E-01

Radioactive species, other beta emitters	Air	Bq	1,90E+01	1,90E+01	1,25E+01	1,25E+01	1,03E+01	1,03E+01	1,07E+01	1,07E+01
Radium-228	Air	Bq	1,96E+00	1,96E+00	1,89E+00	1,89E+00	1,70E+00	1,70E+00	2,58E+00	2,58E+00
Radon-220	Air	Bq	3,60E+01	3,60E+01	2,05E+01	2,05E+01	2,41E+01	2,41E+01	2,61E+01	2,61E+01
Rhodium	Air	kg	x	x	2,90E-18	2,90E-18	x	x	x	x
Ruthenium-103	Air	Bq	6,75E-07	6,75E-07	6,05E-07	6,05E-07	5,60E-07	5,60E-07	6,06E-07	6,06E-07
Scandium	Air	kg	4,48E-08	1,93E-06	4,44E-08	1,46E-06	4,09E-08	1,63E-06	5,69E-08	1,86E-06
Silicon	Air	kg	2,17E-03	2,29E-03	3,60E-03	3,69E-03	3,44E-03	3,54E-03	2,02E-03	2,13E-03
Silicon tetrafluoride	Air	kg	3,46E-08	3,46E-08	6,22E-08	6,22E-08	4,67E-09	4,67E-09	4,71E-09	4,71E-09
Sodium	Air	kg	7,41E-04	7,72E-04	7,50E-04	7,73E-04	5,22E-04	5,48E-04	5,96E-04	6,25E-04
Sodium chlorate	Air	kg	5,43E-07	5,43E-07	5,44E-07	5,44E-07	2,07E-07	2,07E-07	2,08E-07	2,08E-07
Sodium dichromate	Air	kg	3,55E-07	3,55E-07	3,25E-07	3,25E-07	2,82E-07	2,82E-07	2,94E-07	2,94E-07
Sodium hydroxide	Air	kg	2,16E-07	2,16E-07	2,08E-07	2,08E-07	1,38E-07	1,38E-07	2,45E-07	2,45E-07
Strontium	Air	kg	1,05E-05	1,25E-05	9,57E-06	1,10E-05	9,53E-06	1,11E-05	1,25E-05	1,44E-05
Sulfate	Air	kg	2,33E-02	2,38E-02	1,78E-02	1,82E-02	1,34E-03	1,75E-03	1,06E-02	1,11E-02
Tellurium	Air	kg	x	x	6,26E-13	6,26E-13	x	x	x	x
Terpenes	Air	kg	1,43E-05	1,43E-05	1,42E-05	1,42E-05	1,38E-05	1,38E-05	1,38E-05	1,38E-05
Thorium	Air	kg	5,51E-08	5,51E-08	5,60E-08	5,60E-08	5,01E-08	5,01E-08	7,38E-08	7,38E-08
Thorium-228	Air	Bq	4,47E-01	4,47E-01	3,86E-01	3,86E-01	3,60E-01	3,60E-01	4,55E-01	4,55E-01
Thorium-232	Air	Bq	6,52E-01	6,52E-01	5,32E-01	5,32E-01	4,67E-01	4,67E-01	5,51E-01	5,51E-01
Thorium-234	Air	Bq	2,15E-01	2,15E-01	1,69E-01	1,69E-01	1,35E-01	1,35E-01	1,51E-01	1,51E-01
Tin oxide	Air	kg	x	x	8,15E-16	8,15E-16	x	x	x	x
Titanium	Air	kg	1,27E-04	1,62E-04	5,32E-04	5,58E-04	3,53E-04	3,82E-04	1,23E-04	1,56E-04
Tungsten	Air	kg	4,66E-10	2,14E-07	3,50E-10	1,60E-07	3,92E-10	1,79E-07	4,45E-10	2,04E-07
Uranium	Air	kg	6,17E-08	6,17E-08	6,33E-08	6,33E-08	5,50E-08	5,50E-08	8,70E-08	8,70E-08
Uranium alpha	Air	Bq	8,49E+00	8,49E+00	6,38E+00	6,38E+00	7,14E+00	7,14E+00	8,11E+00	8,11E+00
Used air	Air	kg	x	x	7,28E+00	7,28E+00	x	x	x	x

Water	Air	kg	9,31E-01	9,31E-01	2,31E+00	2,31E+00	9,33E-01	9,33E-01	9,29E-01	9,29E-01
Xenon-131m	Air	Bq	6,72E+01	6,72E+01	5,57E+01	5,57E+01	5,43E+01	5,43E+01	6,10E+01	6,10E+01
Xenon-133m	Air	Bq	4,53E+00	4,53E+00	3,11E+00	3,11E+00	3,46E+00	3,46E+00	4,22E+00	4,22E+00
Xenon-135	Air	Bq	9,50E+02	9,50E+02	7,99E+02	7,99E+02	7,71E+02	7,71E+02	8,61E+02	8,61E+02
Xenon-135m	Air	Bq	5,88E+02	5,88E+02	4,98E+02	4,98E+02	4,78E+02	4,78E+02	5,32E+02	5,32E+02
Xenon-137	Air	Bq	1,66E+01	1,66E+01	1,47E+01	1,47E+01	1,37E+01	1,37E+01	1,49E+01	1,49E+01
Xenon-138	Air	Bq	1,28E+02	1,28E+02	1,12E+02	1,12E+02	1,05E+02	1,05E+02	1,15E+02	1,15E+02
Zinc-65	Air	Bq	1,29E-04	1,29E-04	1,16E-04	1,16E-04	1,07E-04	1,07E-04	1,16E-04	1,16E-04
Zinc oxide	Air	kg	x	x	1,63E-15	1,63E-15	x	x	x	x
Zirconium	Air	kg	1,75E-07	1,75E-07	1,70E-07	1,70E-07	1,75E-07	1,75E-07	1,68E-07	1,68E-07
Zirconium-95	Air	Bq	1,26E-04	1,26E-04	1,13E-04	1,13E-04	1,05E-04	1,05E-04	1,13E-04	1,13E-04
1-Pentene	Water	kg	4,30E-07	4,30E-07	7,74E-08	7,74E-08	1,78E-10	1,78E-10	1,71E-10	1,71E-10
2-Aminopropanol	Water	kg	5,38E-07	5,38E-07	7,12E-08	7,12E-08	1,75E-10	1,75E-10	1,75E-10	1,75E-10
2-Methyl-2-butene	Water	kg	9,55E-11	9,55E-11	1,72E-11	1,72E-11	3,95E-14	3,95E-14	3,80E-14	3,80E-14
Acenaphthylene	Water	kg	3,04E-10	3,04E-10	3,13E-10	3,13E-10	2,30E-10	2,30E-10	2,17E-10	2,17E-10
Acidity, unspecified	Water	kg	3,13E-04	3,13E-04	3,13E-04	3,13E-04	2,93E-04	2,93E-04	3,03E-04	3,03E-04
Acids, unspecified	Water	kg	x	x	2,22E-03	2,22E-03	x	x	x	x
Acrylate, ion	Water	kg	5,10E-08	5,10E-08	4,90E-08	4,90E-08	3,24E-08	3,24E-08	5,77E-08	5,77E-08
Actinides, radioactive, unspecified	Water	Bq	1,78E+00	1,78E+00	1,34E+00	1,34E+00	1,57E+00	1,57E+00	1,79E+00	1,79E+00
Aluminium	Water	kg	1,60E-03	2,61E-01	1,56E-03	2,52E-01	1,45E-03	3,12E-01	1,52E-03	2,20E-01
Antimony-122	Water	Bq	1,93E-03	1,93E-03	1,73E-03	1,73E-03	1,60E-03	1,60E-03	1,73E-03	1,73E-03
AOX, Adsorbable Organic Halogen as Cl	Water	kg	1,75E-05	1,75E-05	2,42E-05	2,42E-05	1,71E-05	1,71E-05	1,75E-05	1,75E-05
Arsenic, ion	Water	kg	2,90E-04	6,40E-04	2,36E-04	5,46E-04	9,66E-05	4,85E-04	1,02E-04	4,33E-04
Barite	Water	kg	1,61E-03	1,61E-03	1,10E-03	1,10E-03	1,13E-03	1,13E-03	1,01E-03	1,01E-03
Barium-140	Water	Bq	8,46E-03	8,46E-03	7,59E-03	7,59E-03	7,02E-03	7,02E-03	7,59E-03	7,59E-03
Benzo(b)fluoranthene	Water	kg	x	x	3,30E-11	3,30E-11	x	x	x	x

BOD5, Biological Oxygen Demand	Water	kg	1,78E+00	2,15E+00	1,25E+00	1,65E+00	1,47E-01	4,32E-01	4,17E-01	7,09E-01
Borate	Water	kg	6,34E-05	6,34E-05	9,28E-06	9,28E-06	2,49E-08	2,49E-08	2,43E-08	2,43E-08
Boron	Water	kg	5,11E-04	6,16E-03	4,91E-04	5,82E-03	6,80E-04	8,09E-03	6,26E-04	6,20E-03
Bromate	Water	kg	1,58E-04	1,58E-04	2,12E-04	2,12E-04	8,13E-05	8,13E-05	4,96E-04	4,96E-04
Bromide	Water	kg	2,70E-03	2,70E-03	5,28E-04	5,28E-04	7,43E-06	7,43E-06	7,40E-06	7,40E-06
Bromine	Water	kg	1,88E-03	2,12E-03	7,60E-03	7,82E-03	8,59E-04	9,39E-04	1,11E-03	1,25E-03
Butene	Water	kg	1,74E-06	1,74E-06	5,09E-07	5,09E-07	3,38E-07	3,38E-07	3,63E-07	3,63E-07
Cadmium, ion	Water	kg	6,72E-05	2,14E-04	4,97E-05	1,87E-04	6,94E-06	1,97E-04	5,06E-06	1,49E-04
Calcium, ion	Water	kg	2,63E+00	3,78E+00	1,95E+00	3,25E+00	1,60E-01	1,41E+00	1,55E-01	1,77E+00
Carbonate	Water	kg	2,13E-03	2,13E-03	1,73E-03	1,73E-03	1,18E-03	1,18E-03	1,70E-03	1,70E-03
Carboxylic acids, unspecified	Water	kg	3,30E-03	3,30E-03	2,84E-03	2,84E-03	2,50E-03	2,50E-03	2,35E-03	2,35E-03
Cerium-141	Water	Bq	3,38E-03	3,38E-03	3,03E-03	3,03E-03	2,80E-03	2,80E-03	3,04E-03	3,04E-03
Cerium-144	Water	Bq	1,03E-03	1,03E-03	9,24E-04	9,24E-04	8,54E-04	8,54E-04	9,24E-04	9,24E-04
Cesium	Water	kg	7,82E-07	7,82E-07	6,73E-07	6,73E-07	5,91E-07	5,91E-07	5,57E-07	5,57E-07
Cesium-136	Water	Bq	6,01E-04	6,01E-04	5,38E-04	5,38E-04	4,98E-04	4,98E-04	5,39E-04	5,39E-04
Chlorate	Water	kg	1,32E-03	1,32E-03	1,73E-03	1,73E-03	7,16E-04	7,16E-04	3,89E-03	3,89E-03
Chloride	Water	kg	2,25E+00	3,35E+00	2,00E+00	2,31E+00	1,33E+00	1,41E+00	4,47E+00	4,56E+00
Chlorinated solvents, unspecified	Water	kg	2,90E-06	2,90E-06	3,74E-06	3,74E-06	2,07E-06	2,07E-06	3,31E-06	3,31E-06
Chlorine	Water	kg	1,01E-05	1,01E-05	1,46E-05	1,46E-05	4,12E-06	4,12E-06	1,07E-05	1,07E-05
Chloroacetyl chloride	Water	kg	7,18E-07	7,18E-07	9,50E-08	9,50E-08	2,33E-10	2,33E-10	2,33E-10	2,33E-10
Chromium-51	Water	Bq	7,32E-01	7,32E-01	6,34E-01	6,34E-01	6,23E-01	6,23E-01	6,70E-01	6,70E-01
Chromium, ion	Water	kg	8,74E-05	8,74E-05	5,85E-05	5,85E-05	1,23E-05	1,23E-05	1,35E-05	1,35E-05
Chrysene	Water	kg	x	x	1,68E-10	1,68E-10	x	x	x	x
Cobalt-57	Water	Bq	1,91E-02	1,91E-02	1,71E-02	1,71E-02	1,58E-02	1,58E-02	1,71E-02	1,71E-02
COD, Chemical Oxygen Demand	Water	kg	2,18E+00	3,29E+00	1,41E+00	2,59E+00	1,47E-01	1,02E+00	4,31E-01	1,32E+00
Copper, ion	Water	kg	1,11E-04	2,85E-03	1,27E-04	2,70E-03	2,53E-05	2,87E-03	5,12E-05	2,59E-03

Cyanide	Water	kg	6,56E-05	6,56E-05	6,15E-05	6,15E-05	7,33E-05	7,33E-05	5,08E-05	5,08E-05
Dichromate	Water	kg	1,12E-06	1,12E-06	1,09E-06	1,09E-06	1,05E-06	1,05E-06	9,04E-07	9,04E-07
DOC, Dissolved Organic Carbon	Water	kg	6,75E-02	5,09E-01	7,18E-02	5,40E-01	5,15E-02	3,96E-01	1,29E-01	4,82E-01
Ethene	Water	kg	7,81E-05	7,81E-05	3,46E-04	3,46E-04	8,16E-04	8,16E-04	8,02E-05	8,02E-05
Fluoride	Water	kg	3,40E-02	8,74E-02	2,64E-02	7,93E-02	3,41E-03	6,93E-02	3,52E-03	5,50E-02
Fluorine	Water	kg	x	x	8,86E-10	8,86E-10	x	x	x	x
Fluosilicic acid	Water	kg	3,38E-05	3,38E-05	3,36E-05	3,36E-05	5,27E-05	5,27E-05	3,37E-05	3,37E-05
Formate	Water	kg	8,44E-05	8,44E-05	6,58E-06	6,58E-06	2,73E-07	2,73E-07	2,69E-07	2,69E-07
Heat, waste	Water	MJ	2,79E+02	2,79E+02	2,79E+02	2,80E+02	2,07E+02	2,07E+02	2,22E+02	2,22E+02
Hydrocarbons, aliphatic, alkanes, unspecified	Water	kg	1,02E-04	1,02E-04	8,75E-05	8,75E-05	7,69E-05	7,69E-05	7,24E-05	7,24E-05
Hydrocarbons, aliphatic, unsaturated	Water	kg	9,91E-06	9,91E-06	8,02E-06	8,02E-06	7,10E-06	7,10E-06	6,69E-06	6,69E-06
Hydrocarbons, aromatic	Water	kg	4,16E-04	4,16E-04	3,58E-04	3,58E-04	3,14E-04	3,14E-04	2,96E-04	2,96E-04
Hydrocarbons, unspecified	Water	kg	5,94E-04	5,94E-04	6,05E-04	6,05E-04	4,49E-04	4,49E-04	5,98E-04	5,98E-04
Hydrogen chloride	Water	kg	x	x	5,57E-10	5,57E-10	x	x	x	x
Hydrogen fluoride	Water	kg	x	x	1,91E-11	1,91E-11	x	x	x	x
Hydrogen peroxide	Water	kg	1,36E-05	1,36E-05	8,13E-06	8,13E-06	4,05E-07	4,05E-07	1,32E-05	1,32E-05
Hydrogen sulfide	Water	kg	8,92E-06	2,69E-04	8,64E-06	2,85E-04	8,91E-06	2,16E-04	8,60E-06	2,38E-04
Hydroxide	Water	kg	2,96E-06	2,96E-06	1,79E-06	1,79E-06	1,04E-06	1,04E-06	1,83E-06	1,83E-06
Hypochlorite	Water	kg	1,98E-05	1,98E-05	1,34E-05	1,34E-05	1,68E-05	1,68E-05	1,88E-05	1,88E-05
Iodide	Water	kg	4,81E-04	4,81E-04	3,57E-04	3,57E-04	6,17E-05	6,17E-05	5,88E-05	5,88E-05
Iodine-133	Water	Bq	5,31E-03	5,31E-03	4,76E-03	4,76E-03	4,40E-03	4,40E-03	4,77E-03	4,77E-03
Iron	Water	kg	x	x	3,44E-05	3,44E-05	x	x	x	x
Iron-59	Water	Bq	1,46E-03	1,46E-03	1,31E-03	1,31E-03	1,21E-03	1,21E-03	1,31E-03	1,31E-03
Iron, ion	Water	kg	2,19E-02	1,55E-01	1,61E-02	1,27E-01	1,87E-02	1,55E-01	2,19E-02	1,49E-01
Lactic acid	Water	kg	6,96E-07	6,96E-07	3,20E-08	3,20E-08	5,71E-09	5,71E-09	5,70E-09	5,70E-09
Lanthanum-140	Water	Bq	9,02E-03	9,02E-03	8,08E-03	8,08E-03	7,47E-03	7,47E-03	8,09E-03	8,09E-03

Lead-210	Water	Bq	6,41E+03	6,41E+03	4,64E+03	4,64E+03	6,23E+00	6,23E+00	6,07E+00	6,07E+00
Lithium, ion	Water	kg	1,00E-03	1,00E-03	8,80E-04	8,80E-04	4,13E-04	4,13E-04	2,22E-04	2,22E-04
Magnesium	Water	kg	1,69E-02	4,97E-01	9,33E-03	3,85E-01	7,61E-03	4,64E-01	7,47E-03	4,54E-01
Manganese	Water	kg	4,69E-04	4,52E-02	3,70E-04	3,76E-02	3,23E-04	4,57E-02	3,34E-04	4,31E-02
Methane, dibromo-	Water	kg	x	x	1,63E-14	1,63E-14	x	x	x	x
Molybdenum-99	Water	Bq	3,11E-03	3,11E-03	2,79E-03	2,79E-03	2,58E-03	2,58E-03	2,79E-03	2,79E-03
Nickel, ion	Water	kg	3,15E-04	4,25E-03	2,71E-04	3,27E-03	1,39E-04	3,40E-03	1,48E-04	3,76E-03
Niobium-95	Water	Bq	2,56E-02	2,56E-02	1,94E-02	1,94E-02	2,47E-02	2,47E-02	2,47E-02	2,47E-02
Nitrogen	Water	kg	2,65E-03	2,65E-03	2,58E-03	2,58E-03	2,00E-03	2,00E-03	2,45E-03	2,45E-03
Nitrogen, organic bound	Water	kg	5,09E-04	5,31E-04	4,94E-04	5,17E-04	7,90E-04	8,04E-04	4,81E-04	4,97E-04
Oils, unspecified	Water	kg	4,57E-02	4,57E-02	3,99E-02	3,99E-02	3,54E-02	3,54E-02	3,33E-02	3,33E-02
PAH, polycyclic aromatic hydrocarbons	Water	kg	4,87E-06	4,87E-06	4,24E-06	4,24E-06	3,75E-06	3,75E-06	3,57E-06	3,57E-06
Particulates, < 10 um	Water	kg	x	x	3,36E-11	3,36E-11	x	x	x	x
Particulates, > 10 um	Water	kg	x	x	3,25E-04	3,25E-04	x	x	x	x
Phosphorus	Water	kg	3,61E-03	3,61E-03	4,21E-03	4,21E-03	2,52E-04	2,52E-04	2,80E-04	2,80E-04
Polonium-210	Water	Bq	9,78E+03	9,78E+03	7,08E+03	7,08E+03	9,48E+00	9,48E+00	9,37E+00	9,37E+00
Potassium	Water	kg	x	x	3,52E-08	3,52E-08	x	x	x	x
Potassium-40	Water	Bq	7,75E+02	7,75E+02	5,60E+02	5,60E+02	4,39E-01	4,39E-01	2,93E-01	2,93E-01
Potassium, ion	Water	kg	1,63E-02	2,99E-01	1,13E-02	2,32E-01	7,84E-03	2,70E-01	8,52E-03	2,65E-01
Propene	Water	kg	1,16E-03	1,16E-03	1,19E-03	1,19E-03	1,32E-03	1,32E-03	6,13E-03	6,13E-03
Protactinium-234	Water	Bq	2,88E+00	2,88E+00	2,16E+00	2,16E+00	2,42E+00	2,42E+00	2,75E+00	2,75E+00
Radioactive species, alpha emitters	Water	Bq	3,70E+00	3,70E+00	2,65E+00	2,65E+00	8,65E-03	8,65E-03	8,71E-03	8,71E-03
Radioactive species, Nuclides, unspecified	Water	Bq	1,07E+03	1,07E+03	8,06E+02	8,06E+02	9,41E+02	9,41E+02	1,07E+03	1,07E+03
Radium-224	Water	Bq	3,91E+01	3,91E+01	3,37E+01	3,37E+01	2,96E+01	2,96E+01	2,79E+01	2,79E+01
Radium-228	Water	Bq	7,99E+01	7,99E+01	6,88E+01	6,88E+01	5,98E+01	5,98E+01	5,61E+01	5,61E+01
Rubidium	Water	kg	7,82E-06	7,82E-06	6,73E-06	6,73E-06	5,91E-06	5,91E-06	5,57E-06	5,57E-06

Ruthenium-103	Water	Bq	6,56E-04	6,56E-04	5,88E-04	5,88E-04	5,44E-04	5,44E-04	5,88E-04	5,88E-04
Scandium	Water	kg	3,19E-06	1,25E-04	2,49E-06	1,01E-04	2,60E-06	1,27E-04	3,00E-06	1,20E-04
Silicon	Water	kg	3,94E-03	1,14E+00	3,51E-03	1,08E+00	2,71E-03	8,03E-01	3,05E-03	8,69E-01
Silver, ion	Water	kg	2,70E-06	1,10E-05	2,36E-06	1,01E-05	1,39E-06	1,21E-05	9,95E-07	9,14E-06
Sodium-24	Water	Bq	2,35E-02	2,35E-02	2,11E-02	2,11E-02	1,95E-02	1,95E-02	2,11E-02	2,11E-02
Sodium, ion	Water	kg	1,09E+00	2,06E+00	7,44E-01	1,22E+00	5,59E-01	9,34E-01	1,61E+00	2,41E+00
Soil loss by erosion into water	Water	kg	3,75E+01	3,75E+01	2,34E+01	2,34E+01	8,47E+00	8,47E+00	8,47E+00	8,47E+00
Solids, inorganic	Water	kg	8,40E-02	8,40E-02	7,61E-02	7,61E-02	7,39E-02	7,39E-02	8,39E-02	8,39E-02
Solved solids	Water	kg	5,97E-02	5,97E-02	5,38E-02	5,38E-02	3,03E-02	3,03E-02	2,37E-02	2,37E-02
Strontium	Water	kg	1,60E-03	1,58E-02	1,36E-03	1,20E-02	1,21E-03	1,31E-02	1,15E-03	1,41E-02
Strontium-89	Water	Bq	6,39E-02	6,39E-02	5,44E-02	5,44E-02	5,57E-02	5,57E-02	5,87E-02	5,87E-02
Sulfate	Water	kg	5,48E+00	9,11E+00	4,07E+00	6,67E+00	4,31E-01	3,50E+00	4,28E-01	3,55E+00
Sulfide	Water	kg	-5,34E-05	-5,34E-05	-5,04E-05	-5,04E-05	7,36E-06	7,36E-06	7,56E-06	7,56E-06
Sulfite	Water	kg	4,94E-05	4,94E-05	3,18E-05	3,18E-05	4,11E-05	4,11E-05	4,56E-05	4,56E-05
Sulfur	Water	kg	7,97E-03	7,97E-03	2,01E-03	2,01E-03	2,18E-04	2,18E-04	2,12E-04	2,12E-04
Suspended solids, unspecified	Water	kg	4,38E-02	4,38E-02	4,08E-02	4,08E-02	3,40E-02	3,40E-02	3,60E-02	3,60E-02
Suspended substances, unspecified	Water	kg	1,08E-08	1,08E-08	9,31E-09	9,31E-09	x	x	x	x
Technetium-99m	Water	Bq	7,15E-02	7,15E-02	6,41E-02	6,41E-02	5,93E-02	5,93E-02	6,42E-02	6,42E-02
Tellurium-132	Water	Bq	1,80E-04	1,80E-04	1,61E-04	1,61E-04	1,49E-04	1,49E-04	1,61E-04	1,61E-04
Thorium-228	Water	Bq	2,35E+02	2,35E+02	1,91E+02	1,91E+02	1,18E+02	1,18E+02	1,12E+02	1,12E+02
Thorium-230	Water	Bq	3,93E+02	3,93E+02	2,95E+02	2,95E+02	3,30E+02	3,30E+02	3,75E+02	3,75E+02
Thorium-232	Water	Bq	4,95E-02	4,95E-02	-1,35E-01	-1,35E-01	-6,21E-02	-6,21E-02	-8,95E-02	-8,95E-02
Thorium-234	Water	Bq	2,88E+00	2,88E+00	2,16E+00	2,16E+00	2,42E+00	2,42E+00	2,75E+00	2,75E+00
Tin, ion	Water	kg	7,07E-05	3,31E-04	7,07E-05	3,05E-04	7,07E-05	4,01E-04	7,52E-05	3,32E-04
Titanium	Water	kg	x	x	2,21E-09	2,21E-09	x	x	x	x
Titanium, ion	Water	kg	4,62E-05	6,24E-02	5,16E-05	1,86E-01	3,02E-05	1,20E-01	2,32E-05	4,62E-02

TOC, Total Organic Carbon	Water	kg	6,96E-02	5,11E-01	7,38E-02	5,42E-01	5,31E-02	3,97E-01	1,31E-01	4,84E-01
Tributyltin compounds	Water	kg	1,26E-06	1,26E-06	1,55E-06	1,55E-06	8,22E-07	8,22E-07	7,04E-07	7,04E-07
Tungsten	Water	kg	6,06E-06	1,81E-04	5,07E-06	1,72E-04	6,26E-06	2,44E-04	5,79E-06	1,79E-04
Uranium alpha	Water	Bq	1,66E+02	1,66E+02	1,25E+02	1,25E+02	1,39E+02	1,39E+02	1,58E+02	1,58E+02
Vanadium, ion	Water	kg	2,11E-05	4,30E-03	1,77E-05	3,79E-03	7,79E-06	1,09E-03	1,20E-05	1,99E-03
VOC, volatile organic compounds, unspecified origin	Water	kg	2,81E-04	2,81E-04	2,41E-04	2,41E-04	2,13E-04	2,13E-04	2,02E-04	2,02E-04
Water	Water	kg	x	x	2,22E+00	2,22E+00	x	x	x	x
Zinc-65	Water	Bq	3,19E-01	3,19E-01	2,86E-01	2,86E-01	2,64E-01	2,64E-01	2,86E-01	2,86E-01
Zinc, ion	Water	kg	5,78E-04	1,13E-02	4,49E-04	1,00E-02	2,91E-04	1,29E-02	2,60E-04	1,06E-02
Zirconium-95	Water	Bq	3,69E-03	3,69E-03	3,31E-03	3,31E-03	3,06E-03	3,06E-03	3,31E-03	3,31E-03
Calcium fluoride waste	Afval	kg	x	x	5,02E-08	5,02E-08	x	x	x	x
Construction waste	Afval	kg	x	x	3,67E-04	3,67E-04	x	x	x	x
Mineral waste, from mining	Afval	kg	x	x	2,94E-01	2,94E-01	x	x	x	x
Radioactive tailings	Afval	kg	x	x	8,79E-05	8,79E-05	x	x	x	x
Rejects	Afval	kg	x	x	2,40E-04	2,40E-04	x	x	x	x
Slag (uranium conversion)	Afval	kg	x	x	3,32E-07	3,32E-07	x	x	x	x
Slags	Afval	kg	x	x	1,56E-05	1,56E-05	x	x	x	x
Waste returned to mine	Afval	kg	x	x	2,61E-05	2,61E-05	x	x	x	x
Waste, nuclear, unspecified/kg	Afval	kg	x	x	8,87E-07	8,87E-07	x	x	x	x
Aluminium	Soil	kg	1,67E-03	1,67E-03	1,64E-03	1,64E-03	1,59E-03	1,59E-03	1,59E-03	1,59E-03
Ammonia	Soil	kg	x	x	4,29E-06	4,29E-06	x	x	x	x
Boron	Soil	kg	1,11E-05	1,11E-05	1,05E-05	1,05E-05	1,00E-05	1,00E-05	1,11E-05	1,11E-05
Bromide	Soil	kg	x	x	1,26E-09	1,26E-09	x	x	x	x
Calcium	Soil	kg	1,89E-02	1,89E-02	1,89E-02	1,89E-02	1,85E-02	1,85E-02	1,85E-02	1,85E-02
Carbon	Soil	kg	1,44E-02	1,44E-02	1,37E-02	1,37E-02	1,35E-02	1,35E-02	1,37E-02	1,37E-02
Chloride	Soil	kg	9,08E-02	9,08E-02	9,05E-02	9,05E-02	8,96E-02	8,96E-02	8,98E-02	8,98E-02

Chlorimuron-ethyl	Soil	kg	-1,42E-06	-1,42E-06	-1,22E-06	-1,22E-06	x	x	x	x
Chromium, ion	Soil	kg	x	x	4,37E-14	4,37E-14	x	x	x	x
Cloransulam-methyl	Soil	kg	-6,08E-07	-6,08E-07	-5,22E-07	-5,22E-07	x	x	x	x
Diflufenzopyr-sodium	Soil	kg	4,47E-06	4,47E-06	3,84E-06	3,84E-06	x	x	x	x
Fenoxaprop	Soil	kg	-1,21E-06	-1,21E-06	-1,04E-06	-1,04E-06	x	x	x	x
Fenpropimorph	Soil	kg	-7,58E-05	-7,58E-05	-6,51E-05	-6,51E-05	x	x	x	x
Fluoride	Soil	kg	4,71E-05	4,71E-05	4,40E-05	4,40E-05	4,20E-05	4,20E-05	3,76E-05	3,76E-05
Foramsulfuron	Soil	kg	8,38E-07	8,38E-07	7,20E-07	7,20E-07	x	x	x	x
Glufosinate	Soil	kg	2,76E-05	2,76E-05	2,38E-05	2,38E-05	x	x	x	x
Heat, waste	Soil	MJ	4,55E+00	4,55E+00	4,32E+00	4,32E+00	2,64E+00	2,64E+00	2,84E+00	2,84E+00
Iron	Soil	kg	6,33E-03	6,33E-03	6,18E-03	6,18E-03	4,99E-03	4,99E-03	5,47E-03	5,47E-03
Magnesium	Soil	kg	2,27E-03	2,27E-03	2,25E-03	2,25E-03	2,20E-03	2,20E-03	2,19E-03	2,19E-03
Manganese	Soil	kg	1,23E-03	1,23E-03	1,25E-03	1,25E-03	1,22E-03	1,22E-03	1,22E-03	1,22E-03
Mesotrione	Soil	kg	3,63E-05	3,63E-05	3,12E-05	3,12E-05	x	x	x	x
Metaldehyde	Soil	kg	7,81E-05	7,81E-05	-1,57E-05	-1,57E-05	3,70E-08	3,70E-08	3,69E-08	3,69E-08
Oils, biogenic	Soil	kg	6,83E-03	6,83E-03	6,82E-03	6,82E-03	6,80E-03	6,80E-03	6,81E-03	6,81E-03
Oils, unspecified	Soil	kg	5,10E-02	5,10E-02	5,27E-02	5,27E-02	3,63E-02	3,63E-02	3,39E-02	3,39E-02
Paraquat	Soil	kg	1,42E-05	1,42E-05	1,22E-05	1,22E-05	x	x	x	x
Phosphorus	Soil	kg	6,15E-04	6,15E-04	6,20E-04	6,20E-04	6,09E-04	6,09E-04	6,09E-04	6,09E-04
Potassium	Soil	kg	3,45E-03	3,45E-03	3,47E-03	3,47E-03	3,41E-03	3,41E-03	3,41E-03	3,41E-03
Primisulfuron	Soil	kg	2,79E-06	2,79E-06	2,40E-06	2,40E-06	x	x	x	x
Silicon	Soil	kg	5,10E-03	5,10E-03	5,17E-03	5,17E-03	5,07E-03	5,07E-03	5,09E-03	5,09E-03
Sodium	Soil	kg	4,99E-02	4,99E-02	4,98E-02	4,98E-02	4,97E-02	4,97E-02	4,97E-02	4,97E-02
Strontium	Soil	kg	3,86E-06	3,86E-06	6,09E-06	6,09E-06	3,08E-06	3,08E-06	3,00E-06	3,00E-06
Sulfate	Soil	kg	x	x	1,35E-07	1,35E-07	x	x	x	x
Sulfide	Soil	kg	x	x	8,12E-07	8,12E-07	x	x	x	x

Sulfosate	Soil	kg	-3,00E-05	-3,00E-05	-2,58E-05	-2,58E-05	x	x	x	x
Sulfur	Soil	kg	8,11E-04	8,11E-04	7,91E-04	7,91E-04	7,61E-04	7,61E-04	7,67E-04	7,67E-04
Tebutam	Soil	kg	4,05E-04	4,05E-04	8,95E-07	8,95E-07	1,55E-07	1,55E-07	1,55E-07	1,55E-07
Titanium	Soil	kg	8,39E-05	8,39E-05	8,50E-05	8,50E-05	8,36E-05	8,36E-05	8,36E-05	8,36E-05

Table F 7 Non-Characterized Flows – IPK.

			IPK					
			BioBuild Demonstrator		***BioBuild Optimized***		***Dorma***	
Substance	**Compartment**	**Unit**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**
Air	Raw	kg	x	x	4,10E+01	4,10E+01	x	x
Anhydrite	Raw	kg	8,01E-06	8,01E-06	6,12E-06	6,12E-06	9,67E-06	9,67E-06
Baryte	Raw	kg	2,87E-02	2,87E-02	2,29E-02	2,29E-02	1,44E-02	1,44E-02
Basalt	Raw	kg	2,14E+00	2,14E+00	2,14E+00	2,14E+00	3,39E+00	3,39E+00
Borax	Raw	kg	7,26E-05	7,26E-05	7,24E-05	7,24E-05	1,23E-04	1,23E-04
Bromine	Raw	kg	6,46E-04	6,46E-04	4,22E-04	4,22E-04	2,81E-07	2,81E-07
Calcite	Raw	kg	2,65E+00	2,65E+00	2,54E+00	2,54E+00	2,52E+00	2,52E+00
Calcium chloride	Raw	kg	x	x	8,96E-14	8,96E-14	x	x
Chrysotile	Raw	kg	8,34E-06	8,34E-06	1,29E-05	1,29E-05	1,55E-05	1,55E-05
Cinnabar	Raw	kg	7,59E-07	7,59E-07	1,18E-06	1,18E-06	1,43E-06	1,43E-06
Clay	Raw	kg	1,00E+00	1,00E+00	9,81E-01	9,81E-01	1,40E+00	1,40E+00
Clay, bentonite	Raw	kg	1,09E-02	1,09E-02	7,34E-03	7,34E-03	4,94E-03	4,94E-03
Colemanite	Raw	kg	2,11E-04	2,11E-04	9,89E-05	9,89E-05	5,85E-01	5,85E-01
Copper, 0.99% in sulfide, Cu 0.36% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	3,03E-03	3,03E-03	1,28E-03	1,28E-03	1,38E-03	1,38E-03
Copper, 1.18% in sulfide, Cu 0.39% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,67E-02	1,67E-02	7,05E-03	7,05E-03	7,64E-03	7,64E-03
Copper, 1.42% in sulfide, Cu 0.81% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	4,44E-03	4,44E-03	1,87E-03	1,87E-03	2,03E-03	2,03E-03
Copper, 2.19% in sulfide, Cu 1.83% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	2,24E-02	2,24E-02	9,60E-03	9,60E-03	1,01E-02	1,01E-02

Diatomite	Raw	kg	3,88E-09	3,88E-09	2,53E-09	2,53E-09	1,01E-09	1,01E-09
Dolomite	Raw	kg	2,50E-01	2,50E-01	2,50E-01	2,50E-01	3,95E-01	3,95E-01
Feldspar	Raw	kg	2,80E-07	2,80E-07	2,50E-07	2,50E-07	7,63E-09	7,63E-09
Fluorine, 4.5% in apatite, 1% in crude ore, in ground	Raw	kg	4,52E-02	4,52E-02	4,45E-02	4,45E-02	4,41E-05	4,41E-05
Fluorine, 4.5% in apatite, 3% in crude ore, in ground	Raw	kg	1,00E-01	1,00E-01	9,63E-02	9,63E-02	2,06E-05	2,06E-05
Gold, Au 1.1E-4%, Ag 4.2E-3%, in ore, in ground	Raw	kg	3,95E-08	3,95E-08	3,92E-08	3,92E-08	1,65E-08	1,65E-08
Gold, Au 1.3E-4%, Ag 4.6E-5%, in ore, in ground	Raw	kg	7,24E-08	7,24E-08	7,19E-08	7,19E-08	3,03E-08	3,03E-08
Gold, Au 2.1E-4%, Ag 2.1E-4%, in ore, in ground	Raw	kg	1,32E-07	1,32E-07	1,32E-07	1,32E-07	5,53E-08	5,53E-08
Gold, Au 4.3E-4%, in ore, in ground	Raw	kg	3,28E-08	3,28E-08	3,26E-08	3,26E-08	1,37E-08	1,37E-08
Gold, Au 4.9E-5%, in ore, in ground	Raw	kg	7,86E-08	7,86E-08	7,81E-08	7,81E-08	3,28E-08	3,28E-08
Gold, Au 6.7E-4%, in ore, in ground	Raw	kg	1,22E-07	1,22E-07	1,21E-07	1,21E-07	5,08E-08	5,08E-08
Gold, Au 7.1E-4%, in ore, in ground	Raw	kg	1,37E-07	1,37E-07	1,36E-07	1,36E-07	5,73E-08	5,73E-08
Gold, Au 9.7E-4%, Ag 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	8,23E-09	8,23E-09	8,17E-09	8,17E-09	3,44E-09	3,44E-09
Granite	Raw	kg	3,30E-09	3,30E-09	4,43E-11	4,43E-11	4,71E-11	4,71E-11
Gravel	Raw	kg	1,36E+01	1,36E+01	1,21E+01	1,21E+01	7,46E+00	7,46E+00
Gypsum	Raw	kg	8,86E-05	8,86E-05	9,27E-05	9,27E-05	5,00E-04	5,00E-04
Kaolinite	Raw	kg	2,31E-04	2,31E-04	2,13E-04	2,13E-04	7,62E-03	7,62E-03
Kieserite	Raw	kg	3,68E-06	3,68E-06	2,39E-06	2,39E-06	2,46E-06	2,46E-06
Magnesite	Raw	kg	6,22E-03	6,22E-03	5,50E-03	5,50E-03	3,17E-03	3,17E-03
Magnesium chloride	Raw	kg	x	x	1,84E-02	1,84E-02	x	x
Metamorphous rock, graphite containing	Raw	kg	1,38E-02	1,38E-02	2,93E-01	2,93E-01	8,97E-03	8,97E-03
Molybdenum, 0.010% in sulfide, Mo 8.2E-3% and Cu 1.83% in crude ore, in ground	Raw	kg	4,15E-04	4,15E-04	1,78E-04	1,78E-04	1,87E-04	1,87E-04
Molybdenum, 0.014% in sulfide, Mo 8.2E-3% and Cu 0.81% in crude ore, in ground	Raw	kg	5,84E-05	5,84E-05	2,46E-05	2,46E-05	2,66E-05	2,66E-05
Molybdenum, 0.022% in sulfide, Mo 8.2E-3% and Cu 0.36% in crude ore, in ground	Raw	kg	2,51E-05	2,51E-05	2,52E-05	2,52E-05	1,66E-05	1,66E-05
Molybdenum, 0.025% in sulfide, Mo 8.2E-3% and Cu 0.39% in crude ore, in ground	Raw	kg	2,14E-04	2,14E-04	9,00E-05	9,00E-05	9,76E-05	9,76E-05

Natural aggregate	Raw	kg	x	x	3,54E-04	3,54E-04	x	x
Nickel, 1.13% in sulfide, Ni 0.76% and Cu 0.76% in crude ore, in ground	Raw	kg	1,18E-03	1,18E-03	1,15E-03	1,15E-03	2,36E-04	2,36E-04
Nickel, 1.98% in silicates, 1.04% in crude ore, in ground	Raw	kg	3,07E-02	3,07E-02	2,54E-02	2,54E-02	1,35E-02	1,35E-02
Nitrogen, in air	Raw	kg	x	x	-5,40E-11	-5,40E-11	x	x
Olivine	Raw	kg	3,18E-06	3,18E-06	2,36E-06	2,36E-06	3,75E-06	3,75E-06
Oxygen, in air	Raw	kg	x	x	-1,41E-04	-1,41E-04	x	x
Pd, Pd 2.0E-4%, Pt 4.8E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	1,33E-08	1,33E-08	1,21E-08	1,21E-08	5,17E-09	5,17E-09
Pd, Pd 7.3E-4%, Pt 2.5E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	3,19E-08	3,19E-08	2,91E-08	2,91E-08	1,24E-08	1,24E-08
Phosphorus, 18% in apatite, 4% in crude ore, in ground	Raw	kg	1,81E-01	1,81E-01	1,78E-01	1,78E-01	1,77E-04	1,77E-04
Potassium chloride	Raw	kg	2,28E-01	2,28E-01	1,88E-01	1,88E-01	8,04E-05	8,04E-05
Pt, Pt 2.5E-4%, Pd 7.3E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	8,52E-10	8,52E-10	3,74E-10	3,74E-10	1,79E-10	1,79E-10
Pt, Pt 4.8E-4%, Pd 2.0E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	3,05E-09	3,05E-09	1,34E-09	1,34E-09	6,43E-10	6,43E-10
Pumice	Raw	kg	x	x	4,69E-09	4,69E-09	x	x
Rh, Rh 2.0E-5%, Pt 2.5E-4%, Pd 7.3E-4%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	2,07E-10	2,07E-10	1,22E-10	1,22E-10	6,35E-11	6,35E-11
Rh, Rh 2.4E-5%, Pt 4.8E-4%, Pd 2.0E-4%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	6,48E-10	6,48E-10	3,82E-10	3,82E-10	1,99E-10	1,99E-10
Sand	Raw	kg	4,61E-04	4,61E-04	5,87E-04	5,87E-04	6,09E-04	6,09E-04
Shale	Raw	kg	2,27E-05	2,27E-05	1,73E-05	1,73E-05	2,74E-05	2,74E-05
Silver, 0.007% in sulfide, Ag 0.004%, Pb, Zn, Cd, In, in ground	Raw	kg	8,95E-07	8,95E-07	8,73E-07	8,73E-07	3,71E-07	3,71E-07
Silver, 3.2ppm in sulfide, Ag 1.2ppm, Cu and Te, in crude ore, in ground	Raw	kg	6,39E-07	6,39E-07	6,23E-07	6,23E-07	2,65E-07	2,65E-07
Silver, Ag 2.1E-4%, Au 2.1E-4%, in ore, in ground	Raw	kg	5,90E-08	5,90E-08	5,75E-08	5,75E-08	2,44E-08	2,44E-08
Silver, Ag 4.2E-3%, Au 1.1E-4%, in ore, in ground	Raw	kg	1,35E-07	1,35E-07	1,31E-07	1,31E-07	5,58E-08	5,58E-08
Silver, Ag 4.6E-5%, Au 1.3E-4%, in ore, in ground	Raw	kg	1,32E-07	1,32E-07	1,29E-07	1,29E-07	5,47E-08	5,47E-08
Silver, Ag 9.7E-4%, Au 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	8,71E-08	8,71E-08	8,49E-08	8,49E-08	3,61E-08	3,61E-08
Slate	Raw	kg	x	x	7,89E-17	7,89E-17	x	x

Sodium nitrate	Raw	kg	4,94E-09	4,94E-09	5,20E-10	5,20E-10	5,11E-10	5,11E-10
Stibnite	Raw	kg	4,03E-10	4,03E-10	2,63E-10	2,63E-10	1,05E-10	1,05E-10
TiO2, 54% in ilmenite, 2.6% in crude ore, in ground	Raw	kg	2,15E-01	2,15E-01	2,10E-01	2,10E-01	1,39E-02	1,39E-02
TiO2, 95% in rutile, 0.40% in crude ore, in ground	Raw	kg	1,53E-08	1,53E-08	9,20E-09	9,20E-09	2,61E-08	2,61E-08
Ulexite	Raw	kg	1,04E-05	1,04E-05	2,99E-06	2,99E-06	2,40E-06	2,40E-06
Volume occupied, final repository for low-active radioactive waste	Raw	m3	1,30E-06	1,30E-06	4,90E-07	4,90E-07	4,13E-07	4,13E-07
Volume occupied, final repository for radioactive waste	Raw	m3	3,28E-07	3,28E-07	1,22E-07	1,22E-07	1,04E-07	1,04E-07
Volume occupied, reservoir	Raw	m3y	1,11E+00	1,11E+00	4,71E-01	4,71E-01	4,65E-01	4,65E-01
Volume occupied, underground deposit	Raw	m3	4,68E-05	4,68E-05	4,64E-05	4,64E-05	2,83E-04	2,83E-04
Water, rain	Raw	m3	x	x	x	x	x	x
Water, salt, ocean	Raw	m3	4,78E-02	4,78E-02	2,08E-02	2,08E-02	1,79E-02	1,79E-02
Water, salt, sole	Raw	m3	2,75E-01	2,75E-01	1,77E-01	1,77E-01	1,32E-03	1,32E-03
Water, turbine use, unspecified natural origin	Raw	m3	3,87E+02	3,87E+02	1,74E+02	1,74E+02	2,22E+02	2,22E+02
Wood, hard, standing	Raw	m3	6,77E-04	6,77E-04	3,33E-04	3,33E-04	4,96E-03	4,96E-03
Wood, primary forest, standing	Raw	m3	7,63E-06	7,63E-06	7,06E-06	7,06E-06	8,26E-08	8,26E-08
Wood, soft, standing	Raw	m3	2,21E-02	2,21E-02	1,87E-02	1,87E-02	1,54E-02	1,54E-02
Wood, unspecified, standing/m3	Raw	m3	4,54E-08	4,54E-08	2,47E-08	2,47E-08	5,59E-07	5,59E-07
2-Aminopropanol	Air	kg	1,98E-08	1,98E-08	1,92E-08	1,92E-08	1,09E-12	1,09E-12
2-Nitrobenzoic acid	Air	kg	4,76E-08	4,76E-08	4,65E-08	4,65E-08	1,68E-12	1,68E-12
Acidity, unspecified	Air	kg	x	x	1,23E-09	1,23E-09	x	x
Actinides, radioactive, unspecified	Air	Bq	1,44E-02	1,44E-02	7,58E-03	7,58E-03	2,20E-02	2,20E-02
Aerosols, radioactive, unspecified	Air	Bq	2,77E-01	2,77E-01	9,97E-02	9,97E-02	8,66E-02	8,66E-02
Aldehydes, unspecified	Air	kg	7,61E-06	7,61E-06	7,09E-06	7,09E-06	1,97E-06	1,97E-06
Aluminium	Air	kg	2,03E-03	2,55E-03	1,10E-03	1,29E-03	2,46E-03	2,63E-03
Ammonium carbonate	Air	kg	1,61E-07	1,61E-07	9,06E-08	9,06E-08	8,79E-08	8,79E-08
Anthranilic acid	Air	kg	3,70E-08	3,70E-08	3,62E-08	3,62E-08	1,22E-12	1,22E-12

Argon-41	Air	Bq	1,16E+02	1,16E+02	3,46E+01	3,46E+01	3,36E+01	3,36E+01
Arsenic trioxide	Air	kg	x	x	1,31E-14	1,31E-14	x	x
Arsine	Air	kg	1,29E-13	1,29E-13	1,22E-12	1,22E-12	5,41E-14	5,41E-14
Barium-140	Air	Bq	1,66E-03	1,66E-03	1,22E-03	1,22E-03	7,31E-04	7,31E-04
Benzal chloride	Air	kg	1,47E-14	1,47E-14	1,44E-14	1,44E-14	7,91E-14	7,91E-14
Benzo(b)fluoranthene	Air	kg	x	x	2,41E-12	2,41E-12	x	x
Benzo(g,h,i)perylene	Air	kg	x	x	1,21E-12	1,21E-12	x	x
Boron	Air	kg	3,51E-04	3,52E-04	1,20E-04	1,21E-04	1,24E-04	1,24E-04
Boron trifluoride	Air	kg	1,77E-15	1,77E-15	1,76E-15	1,76E-15	7,40E-16	7,40E-16
Bromine	Air	kg	7,65E-05	7,65E-05	4,96E-05	4,96E-05	1,52E-05	1,52E-05
Butene	Air	kg	5,67E-06	5,67E-06	8,87E-06	8,87E-06	1,20E-05	1,20E-05
Calcium	Air	kg	3,51E-03	3,69E-03	3,37E-03	3,43E-03	1,91E-04	2,45E-04
Carbon dioxide, land transformation	Air	kg	1,44E-02	1,44E-02	9,85E-01	9,85E-01	9,35E-04	9,35E-04
Carbon monoxide, biogenic	Air	kg	1,39E+00	1,39E+00	1,36E+00	1,36E+00	6,15E-03	6,15E-03
Carbon monoxide, fossil	Air	kg	8,09E-02	8,09E-02	7,02E-02	7,02E-02	5,48E-02	5,48E-02
Cerium-141	Air	Bq	4,03E-04	4,03E-04	2,96E-04	2,96E-04	1,77E-04	1,77E-04
Chloride	Air	kg	x	x	1,11E-08	1,11E-08	x	x
Chlorine	Air	kg	1,38E-04	1,45E-04	1,43E-04	1,46E-04	5,51E-04	5,53E-04
Chlorosilane, trimethyl-	Air	kg	1,06E-06	1,06E-06	1,06E-06	1,06E-06	1,67E-06	1,67E-06
Chromium-51	Air	Bq	2,58E-05	2,58E-05	1,90E-05	1,90E-05	1,14E-05	1,14E-05
Chromium, ion	Air	kg	x	x	3,87E-12	3,87E-12	x	x
Chrysene	Air	kg	x	x	3,32E-12	3,32E-12	x	x
Cyanide	Air	kg	9,37E-05	9,37E-05	1,15E-04	1,15E-04	1,39E-05	1,39E-05
Cyanoacetic acid	Air	kg	4,74E-08	4,74E-08	4,56E-08	4,56E-08	9,58E-12	9,58E-12
Ethyl cellulose	Air	kg	4,03E-08	4,03E-08	4,00E-08	4,00E-08	1,68E-08	1,68E-08
Fluoride	Air	kg	x	x	1,56E-08	1,56E-08	x	x

Fluorine	Air	kg	2,95E-05	6,15E-05	2,71E-05	3,92E-05	2,23E-06	1,24E-05
Fluosilicic acid	Air	kg	3,52E-06	3,52E-06	3,43E-06	3,43E-06	8,96E-06	8,96E-06
Heat, waste	Air	MJ	2,23E+03	2,23E+03	1,68E+03	1,68E+03	6,60E+02	6,60E+02
Helium	Air	kg	1,32E-05	1,32E-05	1,08E-05	1,08E-05	5,46E-06	5,46E-06
Hydrocarbons, aliphatic, alkanes, cyclic	Air	kg	9,84E-07	9,84E-07	1,04E-06	1,04E-06	6,84E-06	6,84E-06
Hydrocarbons, aliphatic, alkanes, unspecified	Air	kg	1,11E-03	1,11E-03	2,81E-03	2,81E-03	5,31E-04	5,31E-04
Hydrocarbons, aliphatic, unsaturated	Air	kg	1,78E-03	1,78E-03	1,64E-03	1,64E-03	1,13E-04	1,13E-04
Hydrocarbons, aromatic	Air	kg	9,29E-05	9,29E-05	7,21E-05	7,21E-05	6,93E-05	6,93E-05
Hydrocarbons, chlorinated	Air	kg	6,26E-05	6,26E-05	9,14E-05	9,14E-05	3,54E-04	3,54E-04
Hydrogen	Air	kg	4,34E-04	4,34E-04	6,75E-04	6,75E-04	3,85E-04	3,85E-04
Hydrogen bromide	Air	kg	x	x	1,11E-10	1,11E-10	x	x
Hydrogen chloride	Air	kg	3,10E-03	3,10E-03	1,65E-03	1,65E-03	1,56E-03	1,56E-03
Hydrogen cyanide	Air	kg	x	x	1,72E-09	1,72E-09	x	x
Hydrogen fluoride	Air	kg	7,25E-04	7,25E-04	3,66E-04	3,66E-04	4,59E-04	4,59E-04
Hydrogen iodide	Air	kg	x	x	1,19E-13	1,19E-13	x	x
Hydrogen peroxide	Air	kg	2,99E-08	2,99E-08	2,97E-08	2,97E-08	1,25E-08	1,25E-08
Hydrogen sulfide	Air	kg	3,05E-04	3,05E-04	2,46E-04	2,46E-04	2,69E-04	2,69E-04
Indeno(1,2,3-cd)pyrene	Air	kg	x	x	8,98E-13	8,98E-13	x	x
Iodine	Air	kg	2,11E-05	2,11E-05	7,42E-06	7,42E-06	7,06E-06	7,06E-06
Iodine-135	Air	Bq	2,98E-03	2,98E-03	1,16E-03	1,16E-03	1,00E-03	1,00E-03
Iron	Air	kg	3,48E-05	6,07E-04	3,96E-05	2,55E-04	4,85E-05	2,29E-04
Isocyanic acid	Air	kg	5,23E-03	5,23E-03	5,04E-03	5,04E-03	1,82E-07	1,82E-07
Krypton-85m	Air	Bq	2,97E+01	2,97E+01	8,73E+03	8,73E+03	1,22E+01	1,22E+01
Krypton-87	Air	Bq	9,73E+00	9,73E+00	5,18E+00	5,18E+00	3,61E+00	3,61E+00
Krypton-88	Air	Bq	1,05E+01	1,05E+01	6,16E+00	6,16E+00	4,08E+00	4,08E+00
Krypton-89	Air	Bq	3,28E+00	3,28E+00	2,28E+00	2,28E+00	1,40E+00	1,40E+00

Lactic acid	Air	kg	3,56E-08	3,56E-08	2,01E-08	2,01E-08	2,07E-11	2,07E-11
Lanthanum-140	Air	Bq	1,42E-04	1,42E-04	1,04E-04	1,04E-04	6,25E-05	6,25E-05
Lead compounds	Air	kg	x	x	7,72E-15	7,72E-15	x	x
Magnesium	Air	kg	2,30E-04	2,83E-04	2,25E-04	2,45E-04	5,10E-05	6,76E-05
Manganese	Air	kg	1,03E-04	1,15E-04	9,35E-05	9,79E-05	8,52E-06	1,23E-05
Methanesulfonic acid	Air	kg	4,79E-08	4,79E-08	4,60E-08	4,60E-08	9,69E-12	9,69E-12
Methyl borate	Air	kg	1,59E-08	1,59E-08	8,59E-09	8,59E-09	9,06E-12	9,06E-12
Niobium-95	Air	Bq	1,57E-06	1,57E-06	1,15E-06	1,15E-06	6,91E-07	6,91E-07
Nitrogen	Air	kg	x	x	3,91E-04	3,91E-04	x	x
Noble gases, radioactive, unspecified	Air	Bq	1,08E+07	1,08E+07	3,98E+06	3,98E+06	3,43E+06	3,43E+06
Oxygen	Air	kg	x	x	2,47E-05	2,47E-05	x	x
Ozone	Air	kg	3,04E-04	3,04E-04	1,26E-04	1,26E-04	1,15E-04	1,15E-04
PAH, polycyclic aromatic hydrocarbons	Air	kg	2,14E-05	2,14E-05	1,93E-05	1,93E-05	2,67E-05	2,67E-05
Palladium	Air	kg	x	x	2,48E-18	2,48E-18	x	x
Particulates, > 10 um	Air	kg	1,90E-01	1,91E-01	1,70E-01	1,71E-01	4,52E-02	4,55E-02
Particulates, > 2.5 um, and < 10um	Air	kg	2,31E-02	2,37E-02	2,12E-02	2,14E-02	2,81E-02	2,83E-02
Particulates, unspecified	Air	kg	x	x	x	x	x	x
Phosphine	Air	kg	9,60E-12	9,60E-12	9,54E-12	9,54E-12	4,01E-12	4,01E-12
Phosphorus	Air	kg	1,71E-04	1,72E-04	1,64E-04	1,64E-04	1,38E-05	1,40E-05
Platinum	Air	kg	1,39E-11	1,39E-11	4,44E-12	4,44E-12	3,57E-12	3,57E-12
Potassium	Air	kg	1,31E-02	1,32E-02	1,24E-02	1,24E-02	7,04E-04	7,32E-04
Potassium-40	Air	Bq	1,39E+00	1,39E+00	5,90E-01	5,90E-01	5,50E-01	5,50E-01
Protactinium-234	Air	Bq	1,56E-01	1,56E-01	5,89E-02	5,89E-02	5,04E-02	5,04E-02
Radioactive species, other beta emitters	Air	Bq	6,22E+00	6,22E+00	4,05E+00	4,05E+00	1,63E+00	1,63E+00
Radium-228	Air	Bq	7,37E-01	7,37E-01	5,13E-01	5,13E-01	6,80E-01	6,80E-01
Radon-220	Air	Bq	5,64E+01	5,64E+01	1,76E+01	1,76E+01	1,63E+01	1,63E+01

Rhodium	Air	kg	x	x	2,39E-18	2,39E-18	x	x
Ruthenium-103	Air	Bq	3,45E-07	3,45E-07	2,53E-07	2,53E-07	1,52E-07	1,52E-07
Scandium	Air	kg	1,18E-08	1,89E-06	1,11E-08	7,20E-07	1,59E-08	6,11E-07
Silicon	Air	kg	6,69E-04	7,86E-04	9,86E-04	1,03E-03	8,08E-04	8,45E-04
Silicon tetrafluoride	Air	kg	1,37E-06	1,37E-06	1,34E-06	1,34E-06	1,33E-09	1,33E-09
Sodium	Air	kg	9,54E-04	9,85E-04	9,20E-04	9,32E-04	7,24E-05	8,21E-05
Sodium chlorate	Air	kg	5,37E-08	5,37E-08	8,45E-08	8,45E-08	1,79E-08	1,79E-08
Sodium dichromate	Air	kg	1,02E-06	1,02E-06	1,48E-07	1,48E-07	8,82E-08	8,82E-08
Sodium hydroxide	Air	kg	1,11E-07	1,11E-07	1,11E-07	1,11E-07	4,66E-08	4,66E-08
Strontium	Air	kg	6,28E-06	8,19E-06	3,24E-06	3,96E-06	3,58E-06	4,18E-06
Sulfate	Air	kg	1,27E-02	1,31E-02	1,23E-02	1,25E-02	2,09E-03	2,24E-03
Tellurium	Air	kg	x	x	5,16E-13	5,16E-13	x	x
Terpenes	Air	kg	6,68E-07	6,68E-07	6,18E-07	6,18E-07	7,23E-09	7,23E-09
Thorium	Air	kg	1,08E-08	1,08E-08	1,30E-08	1,30E-08	1,98E-08	1,98E-08
Thorium-228	Air	Bq	2,93E-01	2,93E-01	1,35E-01	1,35E-01	1,35E-01	1,35E-01
Thorium-232	Air	Bq	4,97E-01	4,97E-01	2,42E-01	2,42E-01	1,71E-01	1,71E-01
Thorium-234	Air	Bq	1,56E-01	1,56E-01	5,89E-02	5,89E-02	5,04E-02	5,04E-02
Tin oxide	Air	kg	x	x	6,72E-16	6,72E-16	x	x
Titanium	Air	kg	1,66E-04	2,00E-04	1,61E-04	1,74E-04	4,61E-06	1,55E-05
Tungsten	Air	kg	4,66E-10	2,13E-07	1,75E-10	8,03E-08	1,47E-10	6,74E-08
Uranium	Air	kg	1,15E-08	1,15E-08	1,47E-08	1,47E-08	2,24E-08	2,24E-08
Uranium alpha	Air	Bq	8,47E+00	8,47E+00	3,19E+00	3,19E+00	2,68E+00	2,68E+00
Used air	Air	kg	x	x	6,00E+00	6,00E+00	x	x
Water	Air	kg	4,00E-01	4,00E-01	1,54E+00	1,54E+00	4,01E-01	4,01E-01
Xenon-131m	Air	Bq	4,65E+01	4,65E+01	2,59E+01	2,59E+01	1,76E+01	1,76E+01
Xenon-133m	Air	Bq	4,88E+00	4,88E+00	1,84E+00	1,84E+00	1,55E+00	1,55E+00

Xenon-135	Air	Bq	6,30E+02	6,30E+02	3,65E+02	3,65E+02	2,43E+02	2,43E+02
Xenon-135m	Air	Bq	3,80E+02	3,80E+02	2,25E+02	2,25E+02	1,49E+02	1,49E+02
Xenon-137	Air	Bq	8,99E+00	8,99E+00	6,25E+00	6,25E+00	3,83E+00	3,83E+00
Xenon-138	Air	Bq	7,35E+01	7,35E+01	4,85E+01	4,85E+01	3,05E+01	3,05E+01
Zinc-65	Air	Bq	6,60E-05	6,60E-05	4,85E-05	4,85E-05	2,91E-05	2,91E-05
Zinc oxide	Air	kg	x	x	1,34E-15	1,34E-15	x	x
Zirconium	Air	kg	4,26E-08	4,26E-08	4,07E-08	4,07E-08	5,98E-08	5,98E-08
Zirconium-95	Air	Bq	6,45E-05	6,45E-05	4,74E-05	4,74E-05	2,84E-05	2,84E-05
1-Pentene	Water	kg	6,87E-08	6,87E-08	3,30E-08	3,30E-08	4,40E-11	4,40E-11
2-Aminopropanol	Water	kg	4,75E-08	4,75E-08	4,60E-08	4,60E-08	2,72E-12	2,72E-12
2-Methyl-2-butene	Water	kg	1,52E-11	1,52E-11	7,31E-12	7,31E-12	9,76E-15	9,76E-15
Acenaphthylene	Water	kg	9,35E-11	9,35E-11	1,15E-10	1,15E-10	3,79E-11	3,79E-11
Acidity, unspecified	Water	kg	2,81E-05	2,81E-05	2,57E-05	2,57E-05	2,72E-06	2,72E-06
Acids, unspecified	Water	kg	1,15E-01	1,15E-01	1,13E-01	1,13E-01	x	x
Acrylate, ion	Water	kg	2,63E-08	2,63E-08	2,61E-08	2,61E-08	1,10E-08	1,10E-08
Actinides, radioactive, unspecified	Water	Bq	1,83E+00	1,83E+00	6,72E-01	6,72E-01	5,80E-01	5,80E-01
Aluminium	Water	kg	5,77E-04	9,53E-02	3,85E-04	5,57E-02	2,14E-04	6,85E-02
Antimony-122	Water	Bq	9,87E-04	9,87E-04	7,25E-04	7,25E-04	4,34E-04	4,34E-04
AOX, Adsorbable Organic Halogen as Cl	Water	kg	2,10E-06	2,10E-06	7,25E-06	7,25E-06	1,28E-06	1,28E-06
Arsenic, ion	Water	kg	1,22E-04	3,63E-04	9,86E-05	2,10E-04	3,05E-05	1,60E-04
Barite	Water	kg	2,16E-03	2,16E-03	1,53E-03	1,53E-03	8,77E-04	8,77E-04
Barium-140	Water	Bq	4,32E-03	4,32E-03	3,18E-03	3,18E-03	1,90E-03	1,90E-03
Benzo(b)fluoranthene	Water	kg	x	x	2,72E-11	2,72E-11	x	x
BOD5, Biological Oxygen Demand	Water	kg	1,12E+00	1,25E+00	9,33E-01	1,07E+00	7,18E-02	1,20E-01
Borate	Water	kg	9,58E-06	9,58E-06	5,93E-06	5,93E-06	4,52E-09	4,52E-09
Boron	Water	kg	2,57E-04	3,30E-03	1,29E-04	1,56E-03	2,30E-04	2,52E-03

Bromate	Water	kg	4,22E-05	4,22E-05	6,64E-05	6,64E-05	8,16E-05	8,16E-05
Bromide	Water	kg	5,57E-04	5,57E-04	3,68E-04	3,68E-04	2,38E-07	2,38E-07
Bromine	Water	kg	9,98E-04	1,17E-03	5,92E-03	6,09E-03	1,67E-04	1,84E-04
Butene	Water	kg	3,89E-07	3,89E-07	1,07E-05	1,07E-05	2,35E-05	2,35E-05
Cadmium, ion	Water	kg	2,32E-05	1,07E-04	2,25E-05	6,30E-05	1,93E-06	6,15E-05
Calcium, ion	Water	kg	9,24E-01	1,95E+00	8,96E-01	1,42E+00	2,23E-02	4,63E-01
Carbonate	Water	kg	3,03E-04	3,03E-04	1,79E-04	1,79E-04	1,22E-04	1,22E-04
Carboxylic acids, unspecified	Water	kg	1,05E-03	1,05E-03	8,11E-04	8,11E-04	4,24E-04	4,24E-04
Cerium-141	Water	Bq	1,73E-03	1,73E-03	1,27E-03	1,27E-03	7,61E-04	7,61E-04
Cerium-144	Water	Bq	5,26E-04	5,26E-04	3,87E-04	3,87E-04	2,32E-04	2,32E-04
Cesium	Water	kg	2,40E-07	2,40E-07	1,87E-07	1,87E-07	9,74E-08	9,74E-08
Cesium-136	Water	Bq	3,07E-04	3,07E-04	2,25E-04	2,25E-04	1,35E-04	1,35E-04
Chlorate	Water	kg	3,27E-04	3,27E-04	5,13E-04	5,13E-04	6,25E-04	6,25E-04
Chloride	Water	kg	4,77E-01	7,54E-01	4,25E-01	6,16E-01	6,65E-01	6,94E-01
Chlorinated solvents, unspecified	Water	kg	1,08E-06	1,08E-06	1,36E-06	1,36E-06	9,23E-07	9,23E-07
Chlorine	Water	kg	9,10E-06	9,10E-06	1,01E-05	1,01E-05	2,25E-06	2,25E-06
Chloroacetyl chloride	Water	kg	6,33E-08	6,33E-08	6,14E-08	6,14E-08	3,63E-12	3,63E-12
Chromium-51	Water	Bq	4,78E-01	4,78E-01	2,90E-01	2,90E-01	1,84E-01	1,84E-01
Chromium, ion	Water	kg	2,72E-05	2,72E-05	2,37E-05	2,37E-05	1,20E-06	1,20E-06
Chrysene	Water	kg	x	x	1,38E-10	1,38E-10	x	x
Cobalt-57	Water	Bq	9,74E-03	9,74E-03	7,16E-03	7,16E-03	4,29E-03	4,29E-03
COD, Chemical Oxygen Demand	Water	kg	1,26E+00	1,66E+00	1,06E+00	1,46E+00	7,53E-02	2,21E-01
Copper, ion	Water	kg	2,87E-05	1,35E-03	5,97E-05	8,17E-04	8,96E-06	8,92E-04
Cyanide	Water	kg	1,91E-05	1,91E-05	1,25E-05	1,25E-05	2,13E-05	2,13E-05
Dichromate	Water	kg	3,77E-06	3,77E-06	5,48E-07	5,48E-07	3,27E-07	3,27E-07
DOC, Dissolved Organic Carbon	Water	kg	1,81E-02	1,77E-01	2,46E-02	1,81E-01	2,13E-02	7,92E-02

Ethene	Water	kg	2,46E-04	2,46E-04	2,40E-04	2,40E-04	2,37E-05	2,37E-05
Fluoride	Water	kg	1,12E-02	3,24E-02	1,10E-02	2,87E-02	1,36E-03	2,51E-02
Fluorine	Water	kg	x	x	7,31E-10	7,31E-10	x	x
Fluosilicic acid	Water	kg	6,33E-06	6,33E-06	6,17E-06	6,17E-06	1,61E-05	1,61E-05
Formate	Water	kg	4,54E-05	4,54E-05	4,44E-05	4,44E-05	5,05E-08	5,05E-08
Heat, waste	Water	MJ	1,28E+02	1,28E+02	1,03E+02	1,03E+02	3,84E+01	3,85E+01
Hydrocarbons, aliphatic, alkanes, unspecified	Water	kg	3,13E-05	3,13E-05	2,43E-05	2,43E-05	1,27E-05	1,27E-05
Hydrocarbons, aliphatic, unsaturated	Water	kg	3,04E-06	3,04E-06	2,38E-06	2,38E-06	1,17E-06	1,17E-06
Hydrocarbons, aromatic	Water	kg	1,31E-04	1,31E-04	1,01E-04	1,01E-04	5,28E-05	5,28E-05
Hydrocarbons, unspecified	Water	kg	2,69E-04	2,69E-04	2,22E-04	2,22E-04	5,68E-05	5,68E-05
Hydrogen chloride	Water	kg	x	x	4,59E-10	4,59E-10	x	x
Hydrogen fluoride	Water	kg	x	x	1,58E-11	1,58E-11	x	x
Hydrogen peroxide	Water	kg	5,86E-07	5,86E-07	3,69E-07	3,69E-07	1,43E-07	1,43E-07
Hydrogen sulfide	Water	kg	2,38E-06	1,78E-04	2,12E-06	1,67E-04	3,06E-06	3,44E-05
Hydroxide	Water	kg	1,06E-06	1,06E-06	9,53E-07	9,53E-07	3,53E-07	3,53E-07
Hypochlorite	Water	kg	2,30E-05	2,30E-05	7,39E-06	7,39E-06	7,61E-06	7,61E-06
Iodide	Water	kg	9,38E-05	9,38E-05	2,60E-04	2,60E-04	1,06E-05	1,06E-05
Iodine-133	Water	Bq	2,71E-03	2,71E-03	1,99E-03	1,99E-03	1,19E-03	1,19E-03
Iron	Water	kg	x	x	2,83E-05	2,83E-05	x	x
Iron-59	Water	Bq	7,46E-04	7,46E-04	5,48E-04	5,48E-04	3,28E-04	3,28E-04
Iron, ion	Water	kg	2,14E-02	1,22E-01	7,10E-03	4,72E-02	7,33E-03	5,61E-02
Lactic acid	Water	kg	8,54E-08	8,54E-08	4,83E-08	4,83E-08	4,96E-11	4,96E-11
Lanthanum-140	Water	Bq	4,61E-03	4,61E-03	3,38E-03	3,38E-03	2,03E-03	2,03E-03
Lead-210	Water	Bq	2,34E+03	2,34E+03	2,28E+03	2,28E+03	1,11E+00	1,11E+00
Lithium, ion	Water	kg	2,55E-05	2,55E-05	2,34E-05	2,34E-05	1,20E-04	1,20E-04
Magnesium	Water	kg	7,44E-03	4,14E-01	3,94E-03	1,59E-01	2,38E-03	1,76E-01

Manganese	Water	kg	3,66E-04	3,77E-02	2,02E-04	1,68E-02	9,48E-05	1,58E-02
Methane, dibromo-	Water	kg	x	x	1,34E-14	1,34E-14	x	x
Molybdenum-99	Water	Bq	1,59E-03	1,59E-03	1,17E-03	1,17E-03	6,99E-04	6,99E-04
Nickel, ion	Water	kg	7,06E-05	3,45E-03	6,51E-05	1,38E-03	6,32E-06	1,30E-03
Niobium-95	Water	Bq	3,21E-02	3,21E-02	1,36E-02	1,36E-02	9,41E-03	9,41E-03
Nitrogen	Water	kg	8,01E-04	8,01E-04	5,34E-04	5,34E-04	2,39E-04	2,39E-04
Nitrogen, organic bound	Water	kg	1,30E-04	1,44E-04	9,05E-05	1,03E-04	2,25E-04	2,34E-04
Oils, unspecified	Water	kg	1,58E-02	1,58E-02	1,21E-02	1,21E-02	6,25E-03	6,25E-03
PAH, polycyclic aromatic hydrocarbons	Water	kg	1,50E-06	1,50E-06	1,18E-06	1,18E-06	6,34E-07	6,34E-07
Particulates, < 10 um	Water	kg	x	x	2,77E-11	2,77E-11	x	x
Particulates, > 10 um	Water	kg	x	x	2,68E-04	2,68E-04	x	x
Phosphorus	Water	kg	2,82E-03	2,82E-03	2,30E-03	2,30E-03	1,76E-05	1,76E-05
Polonium-210	Water	Bq	3,56E+03	3,56E+03	3,48E+03	3,48E+03	1,35E+00	1,35E+00
Potassium	Water	kg	x	x	2,90E-08	2,90E-08	x	x
Potassium-40	Water	Bq	2,85E+02	2,85E+02	2,76E+02	2,76E+02	7,65E-01	7,65E-01
Potassium, ion	Water	kg	6,99E-03	2,50E-01	4,85E-03	1,04E-01	1,97E-03	1,03E-01
Propene	Water	kg	3,78E-04	3,78E-04	4,12E-04	4,12E-04	1,24E-03	1,24E-03
Protactinium-234	Water	Bq	2,87E+00	2,87E+00	1,08E+00	1,08E+00	9,09E-01	9,09E-01
Radioactive species, alpha emitters	Water	Bq	2,66E+00	2,66E+00	2,58E+00	2,58E+00	1,57E-03	1,57E-03
Radioactive species, Nuclides, unspecified	Water	Bq	1,10E+03	1,10E+03	4,03E+02	4,03E+02	3,48E+02	3,48E+02
Radium-224	Water	Bq	1,20E+01	1,20E+01	9,36E+00	9,36E+00	4,87E+00	4,87E+00
Radium-228	Water	Bq	2,41E+01	2,41E+01	1,88E+01	1,88E+01	9,95E+00	9,95E+00
Rubidium	Water	kg	2,40E-06	2,40E-06	1,87E-06	1,87E-06	9,74E-07	9,74E-07
Ruthenium-103	Water	Bq	3,35E-04	3,35E-04	2,46E-04	2,46E-04	1,47E-04	1,47E-04
Scandium	Water	kg	2,69E-06	1,02E-04	9,63E-07	3,89E-05	9,99E-07	4,70E-05
Silicon	Water	kg	2,53E-03	6,62E-01	1,24E-03	3,71E-01	1,01E-03	2,89E-01

Silver, ion	Water	kg	3,42E-07	4,90E-06	2,39E-07	2,38E-06	3,53E-07	3,72E-06
Sodium-24	Water	Bq	1,20E-02	1,20E-02	8,83E-03	8,83E-03	5,29E-03	5,29E-03
Sodium, ion	Water	kg	1,79E-01	6,39E-01	1,46E-01	3,68E-01	2,27E-01	4,51E-01
Soil loss by erosion into water	Water	kg	2,09E+01	2,09E+01	2,02E+01	2,02E+01	x	x
Solids, inorganic	Water	kg	4,88E-02	4,88E-02	2,17E-02	2,17E-02	2,29E-02	2,29E-02
Solved solids	Water	kg	6,49E-03	6,49E-03	5,30E-03	5,30E-03	6,45E-03	6,45E-03
Strontium	Water	kg	5,71E-04	1,42E-02	3,90E-04	5,80E-03	2,37E-04	5,21E-03
Strontium-89	Water	Bq	4,78E-02	4,78E-02	2,72E-02	2,72E-02	1,73E-02	1,73E-02
Sulfate	Water	kg	2,03E+00	5,17E+00	1,89E+00	3,12E+00	1,30E-01	1,35E+00
Sulfide	Water	kg	2,70E-05	2,70E-05	2,59E-05	2,59E-05	9,97E-07	9,97E-07
Sulfite	Water	kg	6,26E-05	6,26E-05	1,98E-05	1,98E-05	2,02E-05	2,02E-05
Sulfur	Water	kg	1,55E-03	1,55E-03	1,28E-03	1,28E-03	1,88E-05	1,88E-05
Suspended solids, unspecified	Water	kg	1,37E-02	1,37E-02	9,74E-03	9,74E-03	4,37E-03	4,37E-03
Suspended substances, unspecified	Water	kg	x	x	x	x	x	x
Technetium-99m	Water	Bq	3,66E-02	3,66E-02	2,68E-02	2,68E-02	1,61E-02	1,61E-02
Tellurium-132	Water	Bq	9,19E-05	9,19E-05	6,76E-05	6,76E-05	4,05E-05	4,05E-05
Thorium-228	Water	Bq	7,67E+01	7,67E+01	6,54E+01	6,54E+01	1,95E+01	1,95E+01
Thorium-230	Water	Bq	3,92E+02	3,92E+02	1,48E+02	1,48E+02	1,24E+02	1,24E+02
Thorium-232	Water	Bq	5,66E-01	5,66E-01	1,39E-01	1,39E-01	1,31E-01	1,31E-01
Thorium-234	Water	Bq	2,88E+00	2,88E+00	1,08E+00	1,08E+00	9,09E-01	9,09E-01
Tin, ion	Water	kg	7,88E-06	9,54E-05	7,70E-06	6,14E-05	9,46E-07	6,58E-05
Titanium	Water	kg	x	x	1,82E-09	1,82E-09	x	x
Titanium, ion	Water	kg	1,39E-05	5,71E-02	1,18E-05	5,43E-02	9,60E-06	6,02E-03
TOC, Total Organic Carbon	Water	kg	1,84E-02	1,77E-01	2,48E-02	1,81E-01	2,14E-02	7,93E-02
Tributyltin compounds	Water	kg	1,99E-06	1,99E-06	1,64E-06	1,64E-06	2,97E-07	2,97E-07
Tungsten	Water	kg	4,50E-06	9,40E-05	1,71E-06	4,54E-05	2,18E-06	7,52E-05

Uranium alpha	Water	Bq	1,66E+02	1,66E+02	6,24E+01	6,24E+01	5,24E+01	5,24E+01
Vanadium, ion	Water	kg	1,89E-05	3,57E-03	1,43E-05	3,23E-03	3,59E-06	5,57E-04
VOC, volatile organic compounds, unspecified origin	Water	kg	9,13E-05	9,13E-05	6,82E-05	6,82E-05	3,64E-05	3,64E-05
Water	Water	kg	1,15E+02	1,15E+02	1,13E+02	1,13E+02	x	x
Zinc-65	Water	Bq	1,63E-01	1,63E-01	1,20E-01	1,20E-01	7,17E-02	7,17E-02
Zinc, ion	Water	kg	2,51E-04	7,04E-03	1,90E-04	3,28E-03	8,73E-05	4,14E-03
Zirconium-95	Water	Bq	1,89E-03	1,89E-03	1,39E-03	1,39E-03	8,30E-04	8,30E-04
Calcium fluoride waste	Afval	kg	x	x	4,13E-08	4,13E-08	x	x
Construction waste	Afval	kg	x	x	3,03E-04	3,03E-04	x	x
Mineral waste, from mining	Afval	kg	x	x	2,42E-01	2,42E-01	x	x
Radioactive tailings	Afval	kg	x	x	7,24E-05	7,24E-05	x	x
Rejects	Afval	kg	x	x	1,98E-04	1,98E-04	x	x
Slag (uranium conversion)	Afval	kg	x	x	2,74E-07	2,74E-07	x	x
Slags	Afval	kg	x	x	1,28E-05	1,28E-05	x	x
Waste returned to mine	Afval	kg	x	x	2,15E-05	2,15E-05	x	x
Waste, nuclear, unspecified/kg	Afval	kg	x	x	7,31E-07	7,31E-07	x	x
Aluminium	Soil	kg	1,56E-03	1,56E-03	1,47E-03	1,47E-03	1,51E-04	1,51E-04
Ammonia	Soil	kg	x	x	3,53E-06	3,53E-06	x	x
Boron	Soil	kg	1,94E-05	1,94E-05	4,69E-06	4,69E-06	3,29E-06	3,29E-06
Bromide	Soil	kg	x	x	1,04E-09	1,04E-09	x	x
Calcium	Soil	kg	1,98E-02	1,98E-02	1,89E-02	1,89E-02	1,29E-03	1,29E-03
Carbon	Soil	kg	2,07E-03	2,07E-03	1,21E-03	1,21E-03	3,63E-04	3,63E-04
Chloride	Soil	kg	1,27E-02	1,27E-02	1,23E-02	1,23E-02	2,30E-03	2,30E-03
Chlorimuron-ethyl	Soil	kg	x	x	x	x	x	x
Chromium, ion	Soil	kg	x	x	3,60E-14	3,60E-14	x	x
Cloransulam-methyl	Soil	kg	x	x	x	x	x	x

Diflufenzopyr-sodium	Soil	kg	x	x	x	x	x	x
Fenoxaprop	Soil	kg	x	x	x	x	x	x
Fenpropimorph	Soil	kg	x	x	x	x	x	x
Fluoride	Soil	kg	7,60E-05	7,60E-05	1,93E-05	1,93E-05	1,20E-05	1,20E-05
Foramsulfuron	Soil	kg	x	x	x	x	x	x
Glufosinate	Soil	kg	x	x	x	x	x	x
Heat, waste	Soil	MJ	2,25E+01	2,25E+01	2,91E+00	2,91E+00	8,60E-01	8,60E-01
Iron	Soil	kg	2,89E-03	2,89E-03	2,77E-03	2,77E-03	1,09E-03	1,09E-03
Magnesium	Soil	kg	2,29E-03	2,29E-03	2,18E-03	2,18E-03	1,71E-04	1,71E-04
Manganese	Soil	kg	1,36E-03	1,36E-03	1,30E-03	1,30E-03	7,18E-05	7,18E-05
Mesotrione	Soil	kg	x	x	x	x	x	x
Metaldehyde	Soil	kg	2,77E-07	2,77E-07	3,85E-09	3,85E-09	7,75E-10	7,75E-10
Oils, biogenic	Soil	kg	6,72E-04	6,72E-04	6,51E-04	6,51E-04	8,19E-05	8,19E-05
Oils, unspecified	Soil	kg	2,79E-02	2,79E-02	2,24E-02	2,24E-02	6,38E-03	6,38E-03
Paraquat	Soil	kg	x	x	x	x	x	x
Phosphorus	Soil	kg	6,69E-04	6,69E-04	6,42E-04	6,42E-04	3,73E-05	3,73E-05
Potassium	Soil	kg	3,73E-03	3,73E-03	3,58E-03	3,58E-03	2,13E-04	2,13E-04
Primisulfuron	Soil	kg	x	x	x	x	x	x
Silicon	Soil	kg	5,60E-03	5,60E-03	5,39E-03	5,39E-03	3,06E-04	3,06E-04
Sodium	Soil	kg	5,84E-03	5,84E-03	5,77E-03	5,77E-03	4,58E-04	4,58E-04
Strontium	Soil	kg	1,51E-06	1,51E-06	3,41E-06	3,41E-06	7,21E-07	7,21E-07
Sulfate	Soil	kg	x	x	1,12E-07	1,12E-07	x	x
Sulfide	Soil	kg	x	x	6,69E-07	6,69E-07	x	x
Sulfosate	Soil	kg	x	x	x	x	x	x
Sulfur	Soil	kg	7,17E-04	7,17E-04	6,74E-04	6,74E-04	8,24E-05	8,24E-05
Tebutam	Soil	kg	1,16E-06	1,16E-06	1,61E-08	1,61E-08	3,25E-09	3,25E-09

Titanium	Soil	kg	9,31E-05	9,31E-05	8,96E-05	8,96E-05	4,75E-06	4,75E-06

Table F 8 Non-Characterized Flows – SCK.

			SCK					
			BioBuild Demonstrator		*BioBuild Optimized*		*Timber*	
Substance	**Compartment**	**Unit**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**	**Long term emissions excluded**	**Long term emissions included**
Air	Raw	kg	x	x	1,34E+00	1,34E+00	x	x
Anhydrite	Raw	kg	1,74E-05	1,74E-05	1,95E-06	1,95E-06	8,27E-08	8,27E-08
Baryte	Raw	kg	1,32E-02	1,32E-02	9,21E-03	9,21E-03	7,67E-03	7,67E-03
Basalt	Raw	kg	2,41E-03	2,41E-03	1,83E-03	1,83E-03	3,05E-03	3,05E-03
Borax	Raw	kg	1,44E-07	1,44E-07	9,86E-08	9,86E-08	1,36E-07	1,36E-07
Bromine	Raw	kg	3,56E-04	3,56E-04	1,28E-04	1,28E-04	2,18E-07	2,18E-07
Calcite	Raw	kg	9,19E-01	9,19E-01	6,83E-01	6,83E-01	6,14E-01	6,14E-01
Calcium chloride	Raw	kg	x	x	2,94E-15	2,94E-15	x	x
Chrysotile	Raw	kg	1,02E-05	1,02E-05	5,96E-06	5,96E-06	7,82E-07	7,82E-07
Cinnabar	Raw	kg	9,78E-07	9,78E-07	5,77E-07	5,77E-07	7,32E-08	7,32E-08
Clay	Raw	kg	3,16E-01	3,16E-01	2,61E-01	2,61E-01	3,30E-01	3,30E-01
Clay, bentonite	Raw	kg	4,79E-03	4,79E-03	3,45E-03	3,45E-03	3,80E-03	3,80E-03
Colemanite	Raw	kg	5,43E-05	5,43E-05	3,35E-05	3,35E-05	3,86E-05	3,86E-05
Copper, 0.99% in sulfide, Cu 0.36% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,05E-03	1,05E-03	6,19E-04	6,19E-04	6,06E-04	6,06E-04
Copper, 1.18% in sulfide, Cu 0.39% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	4,67E-03	4,67E-03	3,42E-03	3,42E-03	3,35E-03	3,35E-03
Copper, 1.42% in sulfide, Cu 0.81% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	1,24E-03	1,24E-03	9,07E-04	9,07E-04	8,88E-04	8,88E-04
Copper, 2.19% in sulfide, Cu 1.83% and Mo 8.2E-3% in crude ore, in ground	Raw	kg	6,17E-03	6,17E-03	4,60E-03	4,60E-03	4,42E-03	4,42E-03
Diatomite	Raw	kg	1,34E-09	1,34E-09	8,53E-10	8,53E-10	8,90E-10	8,90E-10
Dolomite	Raw	kg	9,63E-04	9,63E-04	7,61E-04	7,61E-04	9,24E-04	9,24E-04
Feldspar	Raw	kg	2,52E-07	2,52E-07	2,48E-07	2,48E-07	3,69E-09	3,69E-09

Fluorine, 4.5% in apatite, 1% in crude ore, in ground	Raw	kg	3,78E-04	3,78E-04	1,35E-02	1,35E-02	1,89E-05	1,89E-05
Fluorine, 4.5% in apatite, 3% in crude ore, in ground	Raw	kg	7,85E-02	7,85E-02	3,16E-02	3,16E-02	1,94E-05	1,94E-05
Gold, Au 1.1E-4%, Ag 4.2E-3%, in ore, in ground	Raw	kg	1,74E-08	1,74E-08	1,42E-08	1,42E-08	1,48E-08	1,48E-08
Gold, Au 1.3E-4%, Ag 4.6E-5%, in ore, in ground	Raw	kg	3,19E-08	3,19E-08	2,60E-08	2,60E-08	2,72E-08	2,72E-08
Gold, Au 2.1E-4%, Ag 2.1E-4%, in ore, in ground	Raw	kg	5,83E-08	5,83E-08	4,75E-08	4,75E-08	4,98E-08	4,98E-08
Gold, Au 4.3E-4%, in ore, in ground	Raw	kg	1,45E-08	1,45E-08	1,18E-08	1,18E-08	1,23E-08	1,23E-08
Gold, Au 4.9E-5%, in ore, in ground	Raw	kg	3,46E-08	3,46E-08	2,82E-08	2,82E-08	2,96E-08	2,96E-08
Gold, Au 6.7E-4%, in ore, in ground	Raw	kg	5,36E-08	5,36E-08	4,36E-08	4,36E-08	4,58E-08	4,58E-08
Gold, Au 7.1E-4%, in ore, in ground	Raw	kg	6,05E-08	6,05E-08	4,92E-08	4,92E-08	5,16E-08	5,16E-08
Gold, Au 9.7E-4%, Ag 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	3,62E-09	3,62E-09	2,95E-09	2,95E-09	3,09E-09	3,09E-09
Granite	Raw	kg	1,19E-09	1,19E-09	1,69E-11	1,69E-11	1,76E-11	1,76E-11
Gravel	Raw	kg	4,41E+00	4,41E+00	3,10E+00	3,10E+00	1,82E+01	1,82E+01
Gypsum	Raw	kg	1,64E-04	1,64E-04	1,64E-04	1,64E-04	1,63E-04	1,63E-04
Kaolinite	Raw	kg	1,30E-04	1,30E-04	8,20E-05	8,20E-05	6,66E-05	6,66E-05
Kieserite	Raw	kg	1,54E-06	1,54E-06	6,29E-07	6,29E-07	5,51E-07	5,51E-07
Magnesite	Raw	kg	3,08E-03	3,08E-03	2,51E-03	2,51E-03	3,17E-03	3,17E-03
Magnesium chloride	Raw	kg	x	x	6,02E-04	6,02E-04	x	x
Metamorphous rock, graphite containing	Raw	kg	1,50E-02	1,50E-02	1,25E-02	1,25E-02	2,96E-03	2,96E-03
Molybdenum, 0.010% in sulfide, Mo 8.2E-3% and Cu 1.83% in crude ore, in ground	Raw	kg	1,15E-04	1,15E-04	8,55E-05	8,55E-05	8,22E-05	8,22E-05
Molybdenum, 0.014% in sulfide, Mo 8.2E-3% and Cu 0.81% in crude ore, in ground	Raw	kg	1,63E-05	1,63E-05	1,19E-05	1,19E-05	1,17E-05	1,17E-05
Molybdenum, 0.022% in sulfide, Mo 8.2E-3% and Cu 0.36% in crude ore, in ground	Raw	kg	2,07E-05	2,07E-05	1,92E-05	1,92E-05	3,01E-05	3,01E-05
Molybdenum, 0.025% in sulfide, Mo 8.2E-3% and Cu 0.39% in crude ore, in ground	Raw	kg	5,97E-05	5,97E-05	4,37E-05	4,37E-05	4,27E-05	4,27E-05
Natural aggregate	Raw	kg	x	x	1,16E-05	1,16E-05	x	x
Nickel, 1.13% in sulfide, Ni 0.76% and Cu 0.76% in crude ore, in ground	Raw	kg	1,92E-04	1,92E-04	3,51E-04	3,51E-04	6,22E-04	6,22E-04
Nickel, 1.98% in silicates, 1.04% in crude ore, in ground	Raw	kg	1,64E-02	1,64E-02	1,28E-02	1,28E-02	1,43E-02	1,43E-02

Nitrogen, in air	Raw	kg	x	x	-1,77E-12	-1,77E-12	x	x
Olivine	Raw	kg	6,34E-06	6,34E-06	7,81E-07	7,81E-07	3,34E-08	3,34E-08
Oxygen, in air	Raw	kg	x	x	-4,64E-06	-4,64E-06	x	x
Pd, Pd 2.0E-4%, Pt 4.8E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	6,73E-09	6,73E-09	4,20E-09	4,20E-09	5,30E-09	5,30E-09
Pd, Pd 7.3E-4%, Pt 2.5E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	1,62E-08	1,62E-08	1,01E-08	1,01E-08	1,27E-08	1,27E-08
Phosphorus, 18% in apatite, 4% in crude ore, in ground	Raw	kg	1,51E-03	1,51E-03	5,39E-02	5,39E-02	7,55E-05	7,55E-05
Potassium chloride	Raw	kg	1,25E-01	1,25E-01	6,48E-02	6,48E-02	2,02E-04	2,02E-04
Pt, Pt 2.5E-4%, Pd 7.3E-4%, Rh 2.0E-5%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	2,43E-10	2,43E-10	1,49E-10	1,49E-10	6,47E-11	6,47E-11
Pt, Pt 4.8E-4%, Pd 2.0E-4%, Rh 2.4E-5%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	8,70E-10	8,70E-10	5,32E-10	5,32E-10	2,32E-10	2,32E-10
Pumice	Raw	kg	x	x	1,54E-10	1,54E-10	x	x
Rh, Rh 2.0E-5%, Pt 2.5E-4%, Pd 7.3E-4%, Ni 2.3E+0%, Cu 3.2E+0% in ore, in ground	Raw	kg	9,84E-11	9,84E-11	4,35E-11	4,35E-11	5,67E-11	5,67E-11
Rh, Rh 2.4E-5%, Pt 4.8E-4%, Pd 2.0E-4%, Ni 3.7E-2%, Cu 5.2E-2% in ore, in ground	Raw	kg	3,08E-10	3,08E-10	1,36E-10	1,36E-10	1,78E-10	1,78E-10
Sand	Raw	kg	5,09E-04	5,09E-04	1,25E-04	1,25E-04	9,64E-06	9,64E-06
Shale	Raw	kg	4,92E-05	4,92E-05	5,51E-06	5,51E-06	2,34E-07	2,34E-07
Silver, 0.007% in sulfide, Ag 0.004%, Pb, Zn, Cd, In, in ground	Raw	kg	3,90E-07	3,90E-07	3,16E-07	3,16E-07	3,30E-07	3,30E-07
Silver, 3.2ppm in sulfide, Ag 1.2ppm, Cu and Te, in crude ore, in ground	Raw	kg	2,79E-07	2,79E-07	2,25E-07	2,25E-07	2,36E-07	2,36E-07
Silver, Ag 2.1E-4%, Au 2.1E-4%, in ore, in ground	Raw	kg	2,57E-08	2,57E-08	2,08E-08	2,08E-08	2,18E-08	2,18E-08
Silver, Ag 4.2E-3%, Au 1.1E-4%, in ore, in ground	Raw	kg	5,87E-08	5,87E-08	4,75E-08	4,75E-08	4,97E-08	4,97E-08
Silver, Ag 4.6E-5%, Au 1.3E-4%, in ore, in ground	Raw	kg	5,76E-08	5,76E-08	4,65E-08	4,65E-08	4,87E-08	4,87E-08
Silver, Ag 9.7E-4%, Au 9.7E-4%, Zn 0.63%, Cu 0.38%, Pb 0.014%, in ore, in ground	Raw	kg	3,80E-08	3,80E-08	3,07E-08	3,07E-08	3,21E-08	3,21E-08
Slate	Raw	kg	x	x	2,59E-18	2,59E-18	x	x
Sodium nitrate	Raw	kg	2,70E-09	2,70E-09	6,39E-11	6,39E-11	5,33E-11	5,33E-11
Stibnite	Raw	kg	1,39E-10	1,39E-10	8,86E-11	8,86E-11	9,25E-11	9,25E-11
TiO2, 54% in ilmenite, 2.6% in crude ore, in ground	Raw	kg	2,19E-01	2,19E-01	2,07E-01	2,07E-01	6,70E-04	6,70E-04
TiO2, 95% in rutile, 0.40% in crude ore, in ground	Raw	kg	6,09E-09	6,09E-09	3,18E-09	3,18E-09	2,85E-09	2,85E-09

Ulexite	Raw	kg	2,81E-06	2,81E-06	1,52E-06	1,52E-06	4,02E-07	4,02E-07
Volume occupied, final repository for low-active radioactive waste	Raw	m3	3,34E-07	3,34E-07	1,97E-07	1,97E-07	1,93E-07	1,93E-07
Volume occupied, final repository for radioactive waste	Raw	m3	8,35E-08	8,35E-08	4,94E-08	4,94E-08	4,88E-08	4,88E-08
Volume occupied, reservoir	Raw	m3y	2,83E-01	2,83E-01	2,06E-01	2,06E-01	2,10E-01	2,10E-01
Volume occupied, underground deposit	Raw	m3	9,27E-05	9,27E-05	9,26E-05	9,26E-05	9,25E-05	9,25E-05
Water, rain	Raw	m3	x	x	x	x	x	x
Water, salt, ocean	Raw	m3	1,36E-02	1,36E-02	8,68E-03	8,68E-03	8,57E-03	8,57E-03
Water, salt, sole	Raw	m3	1,57E-01	1,57E-01	5,39E-02	5,39E-02	9,78E-04	9,78E-04
Water, turbine use, unspecified natural origin	Raw	m3	1,59E+02	1,59E+02	9,39E+01	9,39E+01	1,01E+02	1,01E+02
Wood, hard, standing	Raw	m3	1,41E-04	1,41E-04	9,67E-05	9,67E-05	3,77E-02	3,77E-02
Wood, primary forest, standing	Raw	m3	2,08E-06	2,08E-06	2,40E-06	2,40E-06	2,80E-08	2,80E-08
Wood, soft, standing	Raw	m3	1,37E-03	1,37E-03	3,14E-04	3,14E-04	9,06E-05	9,06E-05
Wood, unspecified, standing/m3	Raw	m3	1,14E-07	1,14E-07	1,36E-08	1,36E-08	4,81E-10	4,81E-10
2-Aminopropanol	Air	kg	1,21E-08	1,21E-08	5,83E-09	5,83E-09	1,03E-11	1,03E-11
2-Nitrobenzoic acid	Air	kg	1,08E-08	1,08E-08	1,41E-08	1,41E-08	1,85E-11	1,85E-11
Acidity, unspecified	Air	kg	x	x	4,02E-11	4,02E-11	x	x
Actinides, radioactive, unspecified	Air	Bq	3,49E-01	3,49E-01	7,88E-03	7,88E-03	7,50E-03	7,50E-03
Aerosols, radioactive, unspecified	Air	Bq	8,03E-02	8,03E-02	4,16E-02	4,16E-02	4,13E-02	4,13E-02
Aldehydes, unspecified	Air	kg	9,70E-07	9,70E-07	2,35E-07	2,35E-07	1,12E-07	1,12E-07
Aluminium	Air	kg	1,45E-03	1,59E-03	8,83E-04	9,63E-04	6,81E-04	7,59E-04
Ammonium carbonate	Air	kg	2,97E-08	2,97E-08	1,86E-08	1,86E-08	1,19E-07	1,19E-07
Anthranilic acid	Air	kg	8,05E-09	8,05E-09	1,10E-08	1,10E-08	1,35E-11	1,35E-11
Argon-41	Air	Bq	3,25E+01	3,25E+01	1,65E+01	1,65E+01	1,15E+01	1,15E+01
Arsenic trioxide	Air	kg	x	x	4,31E-16	4,31E-16	x	x
Arsine	Air	kg	5,70E-14	5,70E-14	8,22E-14	8,22E-14	4,87E-14	4,87E-14
Barium-140	Air	Bq	3,13E-04	3,13E-04	3,03E-04	3,03E-04	4,35E-04	4,35E-04

Benzal chloride	Air	kg	2,06E-13	2,06E-13	2,61E-14	2,61E-14	2,62E-14	2,62E-14
Benzo(b)fluoranthene	Air	kg	x	x	7,91E-14	7,91E-14	x	x
Benzo(g,h,i)perylene	Air	kg	x	x	3,96E-14	3,96E-14	x	x
Boron	Air	kg	1,01E-04	1,02E-04	5,43E-05	5,44E-05	5,78E-05	5,79E-05
Boron trifluoride	Air	kg	7,80E-16	7,80E-16	6,35E-16	6,35E-16	6,66E-16	6,66E-16
Bromine	Air	kg	1,20E-05	1,20E-05	1,62E-05	1,62E-05	1,66E-05	1,66E-05
Butene	Air	kg	2,83E-06	2,83E-06	3,23E-06	3,23E-06	1,65E-06	1,65E-06
Calcium	Air	kg	2,47E-04	2,91E-04	1,10E-03	1,13E-03	1,05E-03	1,08E-03
Carbon dioxide, land transformation	Air	kg	3,92E-03	3,92E-03	3,59E-02	3,59E-02	3,89E-04	3,89E-04
Carbon monoxide, biogenic	Air	kg	2,05E-03	2,05E-03	4,14E-01	4,14E-01	2,51E-02	2,51E-02
Carbon monoxide, fossil	Air	kg	4,10E-02	4,10E-02	2,72E-02	2,72E-02	5,21E-02	5,21E-02
Cerium-141	Air	Bq	7,59E-05	7,59E-05	7,34E-05	7,34E-05	1,05E-04	1,05E-04
Chloride	Air	kg	x	x	3,63E-10	3,63E-10	x	x
Chlorine	Air	kg	3,45E-05	3,62E-05	4,49E-05	4,59E-05	3,65E-05	3,74E-05
Chlorosilane, trimethyl-	Air	kg	1,28E-09	1,28E-09	9,78E-10	9,78E-10	1,58E-09	1,58E-09
Chromium-51	Air	Bq	4,86E-06	4,86E-06	4,70E-06	4,70E-06	6,76E-06	6,76E-06
Chromium, ion	Air	kg	x	x	1,27E-13	1,27E-13	x	x
Chrysene	Air	kg	x	x	1,09E-13	1,09E-13	x	x
Cyanide	Air	kg	3,25E-05	3,25E-05	2,82E-05	2,82E-05	1,16E-05	1,16E-05
Cyanoacetic acid	Air	kg	-1,42E-08	-1,42E-08	1,38E-08	1,38E-08	1,05E-10	1,05E-10
Ethyl cellulose	Air	kg	1,78E-08	1,78E-08	1,44E-08	1,44E-08	1,52E-08	1,52E-08
Fluoride	Air	kg	x	x	5,10E-10	5,10E-10	x	x
Fluorine	Air	kg	8,26E-07	9,14E-06	8,05E-06	1,29E-05	9,21E-06	1,39E-05
Fluosilicic acid	Air	kg	3,64E-06	3,64E-06	3,60E-06	3,60E-06	3,60E-06	3,60E-06
Heat, waste	Air	MJ	6,31E+02	6,31E+02	5,63E+02	5,63E+02	5,58E+02	5,58E+02
Helium	Air	kg	7,23E-06	7,23E-06	3,76E-06	3,76E-06	4,05E-06	4,05E-06

Hydrocarbons, aliphatic, alkanes, cyclic	Air	kg	-6,72E-06	-6,72E-06	2,27E-07	2,27E-07	1,88E-08	1,88E-08
Hydrocarbons, aliphatic, alkanes, unspecified	Air	kg	4,30E-04	4,30E-04	5,93E-04	5,93E-04	3,86E-04	3,86E-04
Hydrocarbons, aliphatic, unsaturated	Air	kg	3,95E-05	3,95E-05	4,84E-04	4,84E-04	5,60E-04	5,60E-04
Hydrocarbons, aromatic	Air	kg	5,00E-04	5,00E-04	4,09E-05	4,09E-05	4,39E-06	4,39E-06
Hydrocarbons, chlorinated	Air	kg	1,06E-04	1,06E-04	1,11E-04	1,11E-04	1,05E-04	1,05E-04
Hydrogen	Air	kg	6,13E-04	6,13E-04	2,17E-04	2,17E-04	2,71E-05	2,71E-05
Hydrogen bromide	Air	kg	x	x	3,63E-12	3,63E-12	x	x
Hydrogen chloride	Air	kg	1,25E-03	1,25E-03	5,75E-04	5,75E-04	6,61E-04	6,61E-04
Hydrogen cyanide	Air	kg	x	x	5,65E-11	5,65E-11	x	x
Hydrogen fluoride	Air	kg	3,24E-04	3,24E-04	2,06E-04	2,06E-04	1,63E-04	1,63E-04
Hydrogen iodide	Air	kg	x	x	3,91E-15	3,91E-15	x	x
Hydrogen peroxide	Air	kg	1,32E-08	1,32E-08	1,07E-08	1,07E-08	1,12E-08	1,12E-08
Hydrogen sulfide	Air	kg	1,09E-04	1,09E-04	1,08E-04	1,08E-04	9,63E-05	9,63E-05
Indeno(1,2,3-cd)pyrene	Air	kg	x	x	2,94E-14	2,94E-14	x	x
Iodine	Air	kg	5,76E-06	5,76E-06	3,21E-06	3,21E-06	3,14E-06	3,14E-06
Iodine-135	Air	Bq	9,85E-02	9,85E-02	5,04E-04	5,04E-04	3,97E-04	3,97E-04
Iron	Air	kg	2,60E-05	1,74E-04	1,56E-05	1,02E-04	2,08E-05	1,05E-04
Isocyanic acid	Air	kg	1,57E-07	1,57E-07	1,56E-03	1,56E-03	1,07E-07	1,07E-07
Krypton-85m	Air	Bq	6,13E+00	6,13E+00	2,91E+02	2,91E+02	6,83E+00	6,83E+00
Krypton-87	Air	Bq	2,24E+00	2,24E+00	1,59E+00	1,59E+00	1,82E+00	1,82E+00
Krypton-88	Air	Bq	2,29E+00	2,29E+00	1,77E+00	1,77E+00	2,17E+00	2,17E+00
Krypton-89	Air	Bq	6,44E-01	6,44E-01	5,86E-01	5,86E-01	8,12E-01	8,12E-01
Lactic acid	Air	kg	1,12E-08	1,12E-08	6,12E-09	6,12E-09	1,69E-11	1,69E-11
Lanthanum-140	Air	Bq	2,67E-05	2,67E-05	2,59E-05	2,59E-05	3,72E-05	3,72E-05
Lead compounds	Air	kg	x	x	2,53E-16	2,53E-16	x	x
Magnesium	Air	kg	2,53E-05	3,89E-05	6,74E-05	7,53E-05	8,18E-05	8,95E-05

Manganese	Air	kg	3,70E-06	6,77E-06	2,80E-05	2,98E-05	3,20E-05	3,37E-05
Methanesulfonic acid	Air	kg	-1,43E-08	-1,43E-08	1,40E-08	1,40E-08	1,06E-10	1,06E-10
Methyl borate	Air	kg	1,02E-08	1,02E-08	2,61E-09	2,61E-09	5,04E-12	5,04E-12
Niobium-95	Air	Bq	2,96E-07	2,96E-07	2,86E-07	2,86E-07	4,11E-07	4,11E-07
Nitrogen	Air	kg	x	x	1,28E-05	1,28E-05	x	x
Noble gases, radioactive, unspecified	Air	Bq	2,69E+06	2,69E+06	1,63E+06	1,63E+06	1,64E+06	1,64E+06
Oxygen	Air	kg	x	x	8,09E-07	8,09E-07	x	x
Ozone	Air	kg	7,18E-05	7,18E-05	6,29E-05	6,29E-05	3,11E-05	3,11E-05
PAH, polycyclic aromatic hydrocarbons	Air	kg	1,20E-05	1,20E-05	1,32E-05	1,32E-05	1,28E-05	1,28E-05
Palladium	Air	kg	x	x	8,13E-20	8,13E-20	x	x
Particulates, > 10 um	Air	kg	1,53E-02	1,56E-02	4,87E-02	4,89E-02	5,37E-03	5,53E-03
Particulates, > 2.5 um, and < 10um	Air	kg	6,66E-03	6,82E-03	3,23E-03	3,33E-03	2,93E-03	3,03E-03
Particulates, unspecified	Air	kg	7,32E-05	7,32E-05	x	x	x	x
Phosphine	Air	kg	4,23E-12	4,23E-12	3,44E-12	3,44E-12	3,61E-12	3,61E-12
Phosphorus	Air	kg	4,91E-06	5,14E-06	4,82E-05	4,83E-05	5,61E-05	5,62E-05
Platinum	Air	kg	3,89E-12	3,89E-12	2,06E-12	2,06E-12	7,50E-13	7,50E-13
Potassium	Air	kg	1,74E-04	1,97E-04	3,62E-03	3,64E-03	4,17E-03	4,18E-03
Potassium-40	Air	Bq	5,72E-01	5,72E-01	2,49E-01	2,49E-01	2,47E-01	2,47E-01
Protactinium-234	Air	Bq	6,14E-02	6,14E-02	2,40E-02	2,40E-02	2,34E-02	2,34E-02
Radioactive species, other beta emitters	Air	Bq	2,14E+00	2,14E+00	1,37E+00	1,37E+00	1,43E+00	1,43E+00
Radium-228	Air	Bq	4,46E-01	4,46E-01	2,36E-01	2,36E-01	3,04E-01	3,04E-01
Radon-220	Air	Bq	1,82E+01	1,82E+01	8,92E+00	8,92E+00	4,10E+00	4,10E+00
Rhodium	Air	kg	x	x	7,84E-20	7,84E-20	x	x
Ruthenium-103	Air	Bq	6,49E-08	6,49E-08	6,28E-08	6,28E-08	9,03E-08	9,03E-08
Scandium	Air	kg	7,16E-09	4,96E-07	4,06E-09	2,90E-07	5,27E-09	2,83E-07
Silicon	Air	kg	7,60E-04	7,91E-04	6,11E-04	6,29E-04	2,74E-04	2,91E-04

Silicon tetrafluoride	Air	kg	1,13E-08	1,13E-08	4,07E-07	4,07E-07	5,66E-10	5,66E-10
Sodium	Air	kg	8,41E-05	9,21E-05	2,68E-04	2,73E-04	2,49E-04	2,53E-04
Sodium chlorate	Air	kg	1,30E-07	1,30E-07	1,11E-08	1,11E-08	8,53E-09	8,53E-09
Sodium dichromate	Air	kg	4,14E-07	4,14E-07	5,67E-08	5,67E-08	4,64E-08	4,64E-08
Sodium hydroxide	Air	kg	4,91E-08	4,91E-08	3,99E-08	3,99E-08	4,19E-08	4,19E-08
Strontium	Air	kg	2,33E-06	2,82E-06	1,33E-06	1,62E-06	1,58E-06	1,86E-06
Sulfate	Air	kg	7,13E-03	7,25E-03	3,95E-03	4,02E-03	1,07E-04	1,78E-04
Tellurium	Air	kg	x	x	1,69E-14	1,69E-14	x	x
Terpenes	Air	kg	1,82E-07	1,82E-07	2,10E-07	2,10E-07	2,45E-09	2,45E-09
Thorium	Air	kg	9,19E-09	9,19E-09	5,12E-09	5,12E-09	6,95E-09	6,95E-09
Thorium-228	Air	Bq	1,14E-01	1,14E-01	5,74E-02	5,74E-02	6,30E-02	6,30E-02
Thorium-232	Air	Bq	1,72E-01	1,72E-01	9,48E-02	9,48E-02	8,12E-02	8,12E-02
Thorium-234	Air	Bq	6,14E-02	6,14E-02	2,40E-02	2,40E-02	2,34E-02	2,34E-02
Tin oxide	Air	kg	x	x	2,20E-17	2,20E-17	x	x
Titanium	Air	kg	1,42E-04	1,51E-04	1,36E-04	1,42E-04	1,40E-06	6,47E-06
Tungsten	Air	kg	1,21E-10	5,53E-08	7,07E-11	3,23E-08	6,88E-11	3,15E-08
Uranium	Air	kg	1,18E-08	1,18E-08	6,48E-09	6,48E-09	8,88E-09	8,88E-09
Uranium alpha	Air	Bq	2,20E+00	2,20E+00	1,29E+00	1,29E+00	1,25E+00	1,25E+00
Used air	Air	kg	x	x	1,97E-01	1,97E-01	x	x
Water	Air	kg	3,69E-01	3,69E-01	4,05E-01	4,05E-01	3,68E-01	3,68E-01
Xenon-131m	Air	Bq	1,05E+01	1,05E+01	7,70E+00	7,70E+00	9,11E+00	9,11E+00
Xenon-133m	Air	Bq	1,28E+00	1,28E+00	7,26E-01	7,26E-01	6,31E-01	6,31E-01
Xenon-135	Air	Bq	1,39E+02	1,39E+02	1,06E+02	1,06E+02	1,29E+02	1,29E+02
Xenon-135m	Air	Bq	8,27E+01	8,27E+01	6,42E+01	6,42E+01	7,94E+01	7,94E+01
Xenon-137	Air	Bq	1,77E+00	1,77E+00	1,60E+00	1,60E+00	2,22E+00	2,22E+00
Xenon-138	Air	Bq	1,50E+01	1,50E+01	1,29E+01	1,29E+01	1,72E+01	1,72E+01

Zinc-65	Air	Bq	1,24E-05	1,24E-05	1,20E-05	1,20E-05	1,73E-05	1,73E-05
Zinc oxide	Air	kg	x	x	4,40E-17	4,40E-17	x	x
Zirconium	Air	kg	6,04E-09	6,04E-09	5,03E-09	5,03E-09	5,65E-09	5,65E-09
Zirconium-95	Air	Bq	1,22E-05	1,22E-05	1,18E-05	1,18E-05	1,69E-05	1,69E-05
1-Pentene	Water	kg	4,79E-08	4,79E-08	1,00E-08	1,00E-08	2,10E-11	2,10E-11
2-Aminopropanol	Water	kg	2,95E-08	2,95E-08	1,40E-08	1,40E-08	2,59E-11	2,59E-11
2-Methyl-2-butene	Water	kg	1,06E-11	1,06E-11	2,22E-12	2,22E-12	4,67E-15	4,67E-15
Acenaphthylene	Water	kg	4,72E-11	4,72E-11	2,83E-11	2,83E-11	2,83E-11	2,83E-11
Acidity, unspecified	Water	kg	8,69E-06	8,69E-06	3,93E-06	3,93E-06	1,08E-07	1,08E-07
Acids, unspecified	Water	kg	x	x	3,43E-02	3,43E-02	x	x
Acrylate, ion	Water	kg	1,16E-08	1,16E-08	9,42E-09	9,42E-09	9,88E-09	9,88E-09
Actinides, radioactive, unspecified	Water	Bq	4,55E-01	4,55E-01	2,75E-01	2,75E-01	2,77E-01	2,77E-01
Aluminium	Water	kg	2,02E-04	5,14E-02	1,24E-04	2,86E-02	8,39E-05	2,76E-02
Antimony-122	Water	Bq	1,86E-04	1,86E-04	1,80E-04	1,80E-04	2,58E-04	2,58E-04
AOX, Adsorbable Organic Halogen as Cl	Water	kg	4,75E-07	4,75E-07	4,76E-07	4,76E-07	1,19E-06	1,19E-06
Arsenic, ion	Water	kg	8,09E-05	1,62E-04	3,59E-05	9,36E-05	1,43E-05	6,61E-05
Barite	Water	kg	8,05E-04	8,05E-04	7,15E-04	7,15E-04	1,99E-04	1,99E-04
Barium-140	Water	Bq	8,14E-04	8,14E-04	7,88E-04	7,88E-04	1,13E-03	1,13E-03
Benzo(b)fluoranthene	Water	kg	x	x	8,90E-13	8,90E-13	x	x
BOD5, Biological Oxygen Demand	Water	kg	5,09E-01	5,66E-01	4,18E-01	4,64E-01	3,15E-02	7,75E-02
Borate	Water	kg	5,42E-06	5,42E-06	1,80E-06	1,80E-06	3,15E-09	3,15E-09
Boron	Water	kg	1,06E-04	1,30E-03	8,46E-05	1,01E-03	8,43E-05	1,02E-03
Bromate	Water	kg	5,37E-05	5,37E-05	3,14E-05	3,14E-05	4,16E-06	4,16E-06
Bromide	Water	kg	2,97E-04	2,97E-04	1,12E-04	1,12E-04	1,88E-07	1,88E-07
Bromine	Water	kg	4,03E-04	4,58E-04	4,91E-04	5,42E-04	7,27E-05	7,58E-05
Butene	Water	kg	2,06E-07	2,06E-07	3,92E-06	3,92E-06	1,37E-07	1,37E-07

Cadmium, ion	Water	kg	1,97E-05	5,12E-05	7,62E-06	3,26E-05	6,85E-07	2,50E-05
Calcium, ion	Water	kg	7,64E-01	1,14E+00	2,90E-01	5,60E-01	8,34E-03	1,63E-01
Carbonate	Water	kg	2,40E-04	2,40E-04	5,50E-05	5,50E-05	5,96E-06	5,96E-06
Carboxylic acids, unspecified	Water	kg	5,23E-04	5,23E-04	3,02E-04	3,02E-04	3,11E-04	3,11E-04
Cerium-141	Water	Bq	3,26E-04	3,26E-04	3,15E-04	3,15E-04	4,53E-04	4,53E-04
Cerium-144	Water	Bq	9,91E-05	9,91E-05	9,59E-05	9,59E-05	1,38E-04	1,38E-04
Cesium	Water	kg	1,21E-07	1,21E-07	6,92E-08	6,92E-08	7,27E-08	7,27E-08
Cesium-136	Water	Bq	5,78E-05	5,78E-05	5,59E-05	5,59E-05	8,03E-05	8,03E-05
Chlorate	Water	kg	4,19E-04	4,19E-04	2,42E-04	2,42E-04	3,22E-05	3,22E-05
Chloride	Water	kg	3,30E-01	4,64E-01	1,85E-01	2,55E-01	6,07E-02	7,11E-02
Chlorinated solvents, unspecified	Water	kg	5,16E-07	5,16E-07	3,54E-07	3,54E-07	1,94E-08	1,94E-08
Chlorine	Water	kg	4,11E-06	4,11E-06	3,08E-06	3,08E-06	6,45E-07	6,45E-07
Chloroacetyl chloride	Water	kg	3,94E-08	3,94E-08	1,87E-08	1,87E-08	3,45E-11	3,45E-11
Chromium-51	Water	Bq	9,65E-02	9,65E-02	8,32E-02	8,32E-02	1,01E-01	1,01E-01
Chromium, ion	Water	kg	2,15E-05	2,15E-05	7,16E-06	7,16E-06	6,28E-07	6,28E-07
Chrysene	Water	kg	x	x	4,53E-12	4,53E-12	x	x
Cobalt-57	Water	Bq	1,83E-03	1,83E-03	1,77E-03	1,77E-03	2,55E-03	2,55E-03
COD, Chemical Oxygen Demand	Water	kg	5,78E-01	7,44E-01	4,73E-01	6,14E-01	2,15E-02	1,62E-01
Copper, ion	Water	kg	2,91E-05	1,55E-03	1,01E-05	4,19E-04	2,58E-06	1,36E-03
Cyanide	Water	kg	1,46E-05	1,46E-05	8,72E-06	8,72E-06	8,75E-06	8,75E-06
Dichromate	Water	kg	1,53E-06	1,53E-06	2,10E-07	2,10E-07	1,72E-07	1,72E-07
DOC, Dissolved Organic Carbon	Water	kg	8,61E-03	7,47E-02	5,51E-03	6,13E-02	1,73E-02	7,31E-02
Ethene	Water	kg	2,58E-04	2,58E-04	2,37E-04	2,37E-04	6,14E-07	6,14E-07
Fluoride	Water	kg	1,03E-02	2,00E-02	3,75E-03	1,50E-02	4,47E-04	8,98E-03
Fluorine	Water	kg	x	x	2,39E-11	2,39E-11	x	x
Fluosilicic acid	Water	kg	6,56E-06	6,56E-06	6,48E-06	6,48E-06	6,48E-06	6,48E-06

Formate	Water	kg	2,35E-06	2,35E-06	1,35E-05	1,35E-05	3,66E-08	3,66E-08
Heat, waste	Water	MJ	4,25E+01	4,26E+01	3,06E+01	3,07E+01	3,68E+01	3,68E+01
Hydrocarbons, aliphatic, alkanes, unspecified	Water	kg	1,58E-05	1,58E-05	8,99E-06	8,99E-06	9,45E-06	9,45E-06
Hydrocarbons, aliphatic, unsaturated	Water	kg	1,44E-06	1,44E-06	8,71E-07	8,71E-07	8,73E-07	8,73E-07
Hydrocarbons, aromatic	Water	kg	6,55E-05	6,55E-05	3,77E-05	3,77E-05	3,87E-05	3,87E-05
Hydrocarbons, unspecified	Water	kg	8,31E-05	8,31E-05	3,26E-05	3,26E-05	5,78E-06	5,78E-06
Hydrogen chloride	Water	kg	x	x	1,50E-11	1,50E-11	x	x
Hydrogen fluoride	Water	kg	x	x	5,17E-13	5,17E-13	x	x
Hydrogen peroxide	Water	kg	2,89E-07	2,89E-07	1,13E-07	1,13E-07	1,01E-07	1,01E-07
Hydrogen sulfide	Water	kg	3,63E-07	3,02E-05	2,87E-07	4,72E-05	3,10E-07	2,81E-05
Hydroxide	Water	kg	5,04E-07	5,04E-07	3,34E-07	3,34E-07	3,13E-07	3,13E-07
Hypochlorite	Water	kg	6,70E-06	6,70E-06	3,62E-06	3,62E-06	2,94E-06	2,94E-06
Iodide	Water	kg	4,48E-05	4,48E-05	2,78E-05	2,78E-05	7,69E-06	7,69E-06
Iodine-133	Water	Bq	5,11E-04	5,11E-04	4,95E-04	4,95E-04	7,11E-04	7,11E-04
Iron	Water	kg	x	x	9,28E-07	9,28E-07	x	x
Iron-59	Water	Bq	1,41E-04	1,41E-04	1,36E-04	1,36E-04	1,95E-04	1,95E-04
Iron, ion	Water	kg	6,11E-03	5,48E-02	3,21E-03	2,42E-02	3,32E-03	3,80E-02
Lactic acid	Water	kg	2,70E-08	2,70E-08	1,47E-08	1,47E-08	4,06E-11	4,06E-11
Lanthanum-140	Water	Bq	8,67E-04	8,67E-04	8,39E-04	8,39E-04	1,21E-03	1,21E-03
Lead-210	Water	Bq	1,94E+03	1,94E+03	7,26E+02	7,26E+02	2,91E-01	2,91E-01
Lithium, ion	Water	kg	3,15E-04	3,15E-04	4,02E-05	4,02E-05	3,98E-05	3,98E-05
Magnesium	Water	kg	3,07E-03	1,30E-01	1,64E-03	7,74E-02	9,99E-04	6,89E-02
Manganese	Water	kg	1,07E-04	1,10E-02	7,21E-05	7,74E-03	3,27E-05	7,35E-03
Methane, dibromo-	Water	kg	x	x	4,40E-16	4,40E-16	x	x
Molybdenum-99	Water	Bq	2,99E-04	2,99E-04	2,89E-04	2,89E-04	4,16E-04	4,16E-04
Nickel, ion	Water	kg	5,86E-05	1,22E-03	1,70E-05	6,34E-04	2,29E-06	6,13E-04

Niobium-95	Water	Bq	6,83E-03	6,83E-03	5,36E-03	5,36E-03	3,89E-03	3,89E-03
Nitrogen	Water	kg	3,29E-04	3,29E-04	2,01E-04	2,01E-04	1,78E-04	1,78E-04
Nitrogen, organic bound	Water	kg	9,49E-05	1,02E-04	8,51E-05	9,04E-05	8,50E-05	8,87E-05
Oils, unspecified	Water	kg	7,63E-03	7,63E-03	4,53E-03	4,53E-03	4,61E-03	4,61E-03
PAH, polycyclic aromatic hydrocarbons	Water	kg	7,86E-07	7,86E-07	4,80E-07	4,80E-07	5,15E-07	5,15E-07
Particulates, < 10 um	Water	kg	x	x	9,08E-13	9,08E-13	x	x
Particulates, > 10 um	Water	kg	x	x	8,79E-06	8,79E-06	x	x
Phosphorus	Water	kg	1,78E-03	1,78E-03	1,02E-03	1,02E-03	1,31E-05	1,31E-05
Polonium-210	Water	Bq	2,96E+03	2,96E+03	1,11E+03	1,11E+03	4,58E-01	4,58E-01
Potassium	Water	kg	x	x	9,51E-10	9,51E-10	x	x
Potassium-40	Water	Bq	2,36E+02	2,36E+02	8,82E+01	8,82E+01	-3,19E-02	-3,19E-02
Potassium, ion	Water	kg	2,77E-03	7,77E-02	1,61E-03	4,78E-02	1,33E-03	4,02E-02
Propene	Water	kg	2,08E-04	2,08E-04	2,08E-04	2,08E-04	1,53E-06	1,53E-06
Protactinium-234	Water	Bq	7,46E-01	7,46E-01	4,36E-01	4,36E-01	4,25E-01	4,25E-01
Radioactive species, alpha emitters	Water	Bq	1,10E+00	1,10E+00	8,16E-01	8,16E-01	8,24E-04	8,24E-04
Radioactive species, Nuclides, unspecified	Water	Bq	2,74E+02	2,74E+02	1,65E+02	1,65E+02	1,66E+02	1,66E+02
Radium-224	Water	Bq	6,07E+00	6,07E+00	3,46E+00	3,46E+00	3,64E+00	3,64E+00
Radium-228	Water	Bq	1,27E+01	1,27E+01	6,99E+00	6,99E+00	7,34E+00	7,34E+00
Rubidium	Water	kg	1,21E-06	1,21E-06	6,92E-07	6,92E-07	7,27E-07	7,27E-07
Ruthenium-103	Water	Bq	6,31E-05	6,31E-05	6,10E-05	6,10E-05	8,77E-05	8,77E-05
Scandium	Water	kg	8,85E-07	3,30E-05	4,30E-07	1,99E-05	4,53E-07	1,83E-05
Silicon	Water	kg	1,14E-03	3,31E-01	5,13E-04	1,55E-01	4,85E-04	1,44E-01
Silver, ion	Water	kg	7,45E-07	2,53E-06	1,52E-07	1,53E-06	1,51E-07	1,51E-06
Sodium-24	Water	Bq	2,26E-03	2,26E-03	2,19E-03	2,19E-03	3,15E-03	3,15E-03
Sodium, ion	Water	kg	1,04E-01	2,92E-01	5,24E-02	1,49E-01	3,13E-02	8,58E-02
Soil loss by erosion into water	Water	kg	6,16E+00	6,16E+00	6,39E+00	6,39E+00	1,02E+01	1,02E+01

Solids, inorganic	Water	kg	1,64E-02	1,64E-02	9,14E-03	9,14E-03	8,96E-03	8,96E-03
Solved solids	Water	kg	1,62E-02	1,62E-02	3,58E-03	3,58E-03	2,34E-03	2,34E-03
Strontium	Water	kg	2,77E-04	4,42E-03	1,50E-04	2,58E-03	1,49E-04	1,96E-03
Strontium-89	Water	Bq	9,62E-03	9,62E-03	8,31E-03	8,31E-03	8,92E-03	8,92E-03
Sulfate	Water	kg	1,62E+00	2,58E+00	6,13E-01	1,19E+00	4,88E-02	5,06E-01
Sulfide	Water	kg	-2,39E-05	-2,39E-05	7,65E-06	7,65E-06	3,46E-07	3,46E-07
Sulfite	Water	kg	1,85E-05	1,85E-05	9,93E-06	9,93E-06	7,15E-06	7,15E-06
Sulfur	Water	kg	8,54E-04	8,54E-04	4,42E-04	4,42E-04	1,45E-05	1,45E-05
Suspended solids, unspecified	Water	kg	6,42E-03	6,42E-03	4,26E-03	4,26E-03	1,11E-03	1,11E-03
Suspended substances, unspecified	Water	kg	3,89E-09	3,89E-09	x	x	x	x
Technetium-99m	Water	Bq	6,91E-03	6,91E-03	6,67E-03	6,67E-03	9,56E-03	9,56E-03
Tellurium-132	Water	Bq	1,73E-05	1,73E-05	1,68E-05	1,68E-05	2,41E-05	2,41E-05
Thorium-228	Water	Bq	4,81E+01	4,81E+01	2,27E+01	2,27E+01	1,45E+01	1,45E+01
Thorium-230	Water	Bq	1,02E+02	1,02E+02	5,95E+01	5,95E+01	5,79E+01	5,79E+01
Thorium-232	Water	Bq	1,86E-01	1,86E-01	9,26E-02	9,26E-02	-1,36E-02	-1,36E-02
Thorium-234	Water	Bq	7,46E-01	7,46E-01	4,36E-01	4,36E-01	4,25E-01	4,25E-01
Tin, ion	Water	kg	1,40E-07	8,38E-05	7,47E-08	2,85E-05	4,40E-08	7,33E-05
Titanium	Water	kg	x	x	5,97E-11	5,97E-11	x	x
Titanium, ion	Water	kg	2,07E-05	5,40E-02	1,11E-05	4,69E-02	3,53E-06	2,15E-03
TOC, Total Organic Carbon	Water	kg	8,83E-03	7,49E-02	5,60E-03	6,14E-02	1,82E-02	7,40E-02
Tributyltin compounds	Water	kg	6,14E-07	6,14E-07	6,50E-07	6,50E-07	7,68E-08	7,68E-08
Tungsten	Water	kg	1,55E-06	3,79E-05	9,20E-07	3,03E-05	9,28E-07	3,03E-05
Uranium alpha	Water	Bq	4,30E+01	4,30E+01	2,51E+01	2,51E+01	2,45E+01	2,45E+01
Vanadium, ion	Water	kg	6,38E-06	1,33E-03	4,93E-06	1,09E-03	1,22E-06	1,47E-04
VOC, volatile organic compounds, unspecified origin	Water	kg	4,44E-05	4,44E-05	2,53E-05	2,53E-05	2,65E-05	2,65E-05
Water	Water	kg	x	x	3,44E+01	3,44E+01	x	x

Zinc-65	Water	Bq	3,07E-02	3,07E-02	2,97E-02	2,97E-02	4,26E-02	4,26E-02
Zinc, ion	Water	kg	1,51E-04	2,58E-03	7,86E-05	1,85E-03	3,53E-05	1,73E-03
Zirconium-95	Water	Bq	3,55E-04	3,55E-04	3,44E-04	3,44E-04	4,94E-04	4,94E-04
Calcium fluoride waste	Afval	kg	x	x	1,35E-09	1,35E-09	x	x
Construction waste	Afval	kg	x	x	9,93E-06	9,93E-06	x	x
Mineral waste, from mining	Afval	kg	x	x	7,95E-03	7,95E-03	x	x
Radioactive tailings	Afval	kg	x	x	2,37E-06	2,37E-06	x	x
Rejects	Afval	kg	x	x	6,48E-06	6,48E-06	x	x
Slag (uranium conversion)	Afval	kg	x	x	8,97E-09	8,97E-09	x	x
Slags	Afval	kg	x	x	4,21E-07	4,21E-07	x	x
Waste returned to mine	Afval	kg	x	x	7,04E-07	7,04E-07	x	x
Waste, nuclear, unspecified/kg	Afval	kg	x	x	2,39E-08	2,39E-08	x	x
Aluminium	Soil	kg	7,86E-05	7,86E-05	4,45E-04	4,45E-04	9,81E-04	9,81E-04
Ammonia	Soil	kg	x	x	1,16E-07	1,16E-07	x	x
Boron	Soil	kg	3,35E-06	3,35E-06	1,83E-06	1,83E-06	1,61E-06	1,61E-06
Bromide	Soil	kg	x	x	3,41E-11	3,41E-11	x	x
Calcium	Soil	kg	3,84E-04	3,84E-04	5,60E-03	5,60E-03	1,29E-02	1,29E-02
Carbon	Soil	kg	5,87E-04	5,87E-04	4,01E-04	4,01E-04	1,47E-02	1,47E-02
Chloride	Soil	kg	1,60E-03	1,60E-03	1,45E-03	1,45E-03	2,71E-03	2,71E-03
Chlorimuron-ethyl	Soil	kg	-5,08E-07	-5,08E-07	x	x	x	x
Chromium, ion	Soil	kg	x	x	1,18E-15	1,18E-15	x	x
Cloransulam-methyl	Soil	kg	-2,18E-07	-2,18E-07	x	x	x	x
Diflufenzopyr-sodium	Soil	kg	1,60E-06	1,60E-06	x	x	x	x
Fenoxaprop	Soil	kg	-4,35E-07	-4,35E-07	x	x	x	x
Fenpropimorph	Soil	kg	-2,72E-05	-2,72E-05	x	x	x	x
Fluoride	Soil	kg	1,36E-05	1,36E-05	7,52E-06	7,52E-06	6,70E-06	6,70E-06
Foramsulfuron	Soil	kg	3,01E-07	3,01E-07	x	x	x	x

Glufosinate	Soil	kg	9,92E-06	9,92E-06	x	x	x	x
Heat, waste	Soil	MJ	2,59E+00	2,59E+00	7,73E-01	7,73E-01	6,48E-01	6,48E-01
Iron	Soil	kg	9,64E-04	9,64E-04	9,19E-04	9,19E-04	2,01E-03	2,01E-03
Magnesium	Soil	kg	6,70E-05	6,70E-05	6,49E-04	6,49E-04	1,47E-03	1,47E-03
Manganese	Soil	kg	9,95E-06	9,95E-06	3,83E-04	3,83E-04	8,94E-04	8,94E-04
Mesotrione	Soil	kg	1,30E-05	1,30E-05	x	x	x	x
Metaldehyde	Soil	kg	-6,44E-06	-6,44E-06	1,65E-10	1,65E-10	5,52E-09	5,52E-09
Oils, biogenic	Soil	kg	1,79E-05	1,79E-05	8,38E-06	8,38E-06	1,05E-03	1,05E-03
Oils, unspecified	Soil	kg	1,32E-02	1,32E-02	8,90E-03	8,90E-03	4,76E-03	4,76E-03
Paraquat	Soil	kg	5,11E-06	5,11E-06	x	x	x	x
Phosphorus	Soil	kg	6,90E-06	6,90E-06	1,89E-04	1,89E-04	4,39E-04	4,39E-04
Potassium	Soil	kg	4,33E-05	4,33E-05	1,05E-03	1,05E-03	2,45E-03	2,45E-03
Primisulfuron	Soil	kg	1,00E-06	1,00E-06	x	x	x	x
Silicon	Soil	kg	4,33E-05	4,33E-05	1,58E-03	1,58E-03	3,69E-03	3,69E-03
Sodium	Soil	kg	4,25E-04	4,25E-04	3,80E-04	3,80E-04	3,84E-04	3,84E-04
Strontium	Soil	kg	6,81E-07	6,81E-07	5,33E-07	5,33E-07	4,68E-07	4,68E-07
Sulfate	Soil	kg	x	x	3,66E-09	3,66E-09	x	x
Sulfide	Soil	kg	x	x	2,19E-08	2,19E-08	x	x
Sulfosate	Soil	kg	-1,08E-05	-1,08E-05	x	x	x	x
Sulfur	Soil	kg	4,75E-05	4,75E-05	2,06E-04	2,06E-04	4,40E-04	4,40E-04
Tebutam	Soil	kg	8,29E-07	8,29E-07	6,91E-10	6,91E-10	2,31E-08	2,31E-08
Titanium	Soil	kg	4,95E-07	4,95E-07	2,63E-05	2,63E-05	6,16E-05	6,16E-05