

Storage Collection 800 Series

Environmental Product Declaration

An EPD should provide current information and may be updated if conditions change.

The stated validity is therefore subject to the continued registration and publication at www.environdec.com

EPD registration number: S-P-02068

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Date of validity: 2025-06-03



Introduction

This Environmental Product Declaration (EPD) is for KI's Storage Collection 800 Series. This is a cradle to grave EPD based upon production information and data collected by KI from their producers in 2020.

KI has the sole ownership, liability and responsibility of this EPD.

This EPD was modelled in SimaPro 9.0.0.24 using data from Ecoinvent version 3.5 and World Steel data for the EU sourced steel.

"EPDs within the same product category but from different programmes may not be comparable."

Programme Information

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Product category rule: Furniture, except seats and mattresses. Product category classification: UN CPC 3812/3813/3814.

Version 2.0. Valid until: 2023-06-17

PCR reviewed by: Arper SpA, 2B Srl

EPD registration number: S-P-02068

CPC code: 3812

Type of EPD: Cradle to grave

EPD geographical scope: Europe

Product Codes: 8ML/1002552D, 8ML/1004053D, 8ML/100405HX, 8ML/100675HX, 8ML/100255HX and 8MI100675ME3003D.

Declared unit: One item of storage furniture in use for 15 years.

Third Party Verifier: Chris Foster, EuGeos Limited

Approved by: The International EPD® System

Independent third-party verification of the declaration and data, according to ISO 14025:2006:

EPD process certification EPD verification

Life Cycle Assessment (LCA) conducted by: Giraffe Innovation Ltd.

www.giraffeinnovation.com



Company Profile

KI's furniture helps the world's leading organisations create happy, healthy, high performing working and learning environments for their people. Bringing together good design, advanced engineering and sustainable resources, KI's products are durable, flexible and offer excellent value.

Founded in 1941, KI has grown to become one of the world's largest, most respected furniture manufacturing groups. KI's EMEA headquarters in London is supported by an established network of manufacturing facilities and distribution partners across the region. For more information, visit: www.kieurope.com

Standards

The entire range of 800 Series cabinets has been tested and passed the following performance tests:

- BS4875-7:2006: Strength and stability of furniture. Domestic and contract storage furniture. Performance requirements
- BS4875-8:1998: Furniture. Strength and stability of furniture. Methods for determination of stability of non-domestic storage furniture
- BS EN ISO 14073-2:2004: Office furniture. Storage furniture. Safety requirements
- BS EN ISO 14073-3:2004: Office furniture. Storage furniture. Test methods for the determination of stability and strength of the structure
- BS EN ISO 14074:2004: Office furniture. Tables and desks and storage furniture. Test methods for the determination of strength and durability of moving parts

Copies of FIRA and SATRA certificates available upon request.

Product Description

This EPD applies to selected KI's Storage Collection 800 Series products, which includes drawer cabinets, cupboards and combination units. The products were manufactured for KI in Mildenhall, Suffolk, UK.

All the products are manufactured from cold rolled European sheet steel which is cut to size and formed into the main body parts. These are then powder coated and assembled with the draw runners, locks, hinges etc. as required.

Each completed unit is placed inside a LDPE bag and shrink wrapped and strapped onto a pallet for distribution. They are either directly supplied to the customer or via a warehouse. The average delivery distance to a customer is 500km using a 18t Euro 5 lorry and the pallets have a typical lifespan of 10 uses¹.

All the products are warrantied for 25 years excluding the keys and locks. KI recommend that the product is cleaned with a soft damp cloth and mild all-purpose cleaner.

The products can be reused, recycled or disposed of. For this EPD it is assumed that 15% of the items are reused and 84% recycled and 1% landfilled. It is assumed that the product packaging is either recycled, incinerated or landfilled and the percentage of each is dependent upon the different types of material. The recycling rates of the packaging is shown in Table 1 below².

Material	% Recovery/Recycling rate
Paper and cardboard	79%
Polymers	46.2%
Wood	31.4%

Table 1: Packaging material recovery and recycling rates

The average distance the units and packaging travel for recycling, reuse or disposal is 50Km.

¹<https://circulareconomy.europa.eu/platform/en/good-practices/reuse-and-recycling-loading-pallets>
²Defra UK statistics on waste March 2019



Materials

The steel used in the KI products is sourced from Europe and has 56% recycled content³.

The powder coating process lines use water-based cleaning systems prior to powder painting to clean parts as opposed to solvent-based cleaning systems. Powder coatings are baked onto the metal components using natural gas fired ovens. The powder coatings contain negligible VOC and Hazardous Air pollutant (HAP) contents. Add-on pollution control equipment is not necessary given the very low levels of pollutants.

The carton board is assumed to contain 75% recycled content as defined in the Ecoinvent dataset.

Products

The selected 800 Series cabinets shown in this EPD are available in 4 standard metric widths and 13 heights. There are many further height and width options.

The System is designed on a 38mm height increment. This allows each cabinet to be tailored to meet the design brief and specific media storage requirements, without constraint from the product.

This EPD covers two draw cabinets, two cupboards and one drawer cabinet. All are primarily constructed from powder coated steel with steel fixtures and fittings and aluminium rivets.

Two draw cabinet model 8ML/1002552D.

This is a two-drawer filing cabinet. It has 2x 305mm drawers with file rails for side-to-side A4/foolscap suspended filing. The unit is 457mm deep, 1000mm wide and 715mm high. It weighs approximately 55.5kg.

The following table shows the breakdown of the product materials including packaging.

Material	% of mass
Steel	68%
Concrete	16%
Polyester Powder Coating	4%
Polymers	1%
Carton Board	1%
Wood	10%

Table 2: 8ML/1002552D material by % mass

Three draw cabinet model 8ML/1004053D

This is a three-drawer filing cabinet. It has 3x 343mm drawers with file rails for side-to-side A4/foolscap suspended filing. The unit is 457mm deep, 1000mm wide and 1114mm high. It weighs approximately 58kg.

The following table shows the breakdown of the product materials including packaging.

Material	% of mass
Steel	69%
Concrete	15%
Polyester Powder Coating	4%
Polymers	1%
Carton Board	1%
Wood	10%

Table 3: 8ML/1004053D material by % mass

³ World Steel Association LCI report in 2012



Cupboard 8ML/100255HX

A cupboard 1000mm wide, 715mm high and 457mm deep. The shell is fitted with double bit core removable lock, supplied with 1 folding and 1 fixed key and 1 basic shelf. It weighs approximately 33kg.

The following table shows the breakdown of the product materials including packaging.

Material	% of mass
Steel	78%
Polyester Powder Coating	4%
Polymers	1%
Carton Board	1%
Wood	15%
Other Metals	< 1%

Table 4: 8ML/100255HX material by % mass

Cupboard 8ML/100405HX

A cupboard 1000mm wide, 1114mm high and 457mm deep. The Shell is fitted with double bit core removable lock, supplied with 1 folding and 1 fixed key and 2 basic shelves. It weighs approximately 50.5kg.

The following table shows the breakdown of the product materials including packaging.

Material	% of mass
Steel	75%
Polyester Powder Coating	4%
Polymers	1%
Carton Board	1%
Wood	20%
Other Metals	< 1%

Table 5: 8ML/100405HX material by % mass

Cupboard 8ML/100675HX

A cupboard 1000mm wide, 1813mm high and 457mm deep. The shell is fitted with double bit core removable lock, supplied with 1 folding and 1 fixed key and 4 basic shelves. It weighs approximately 59kg.

The following table shows the breakdown of the product materials including packaging.

Material	% of mass
Steel	76%
Polyester Powder Coating	5%
Polymers	1%
Carton Board	1%
Wood	17%
Other Metals	< 1%

Table 6: 8ML/100675HX material by % mass



Drawer Cabinet 8ML/100675ME3003D

This is a drawer cabinet 1000mm wide and 1813mm high with a 762mm high single skin cupboard doors. It has a 38mm tie bar and one basic shelf. There are three 305mm drawers with file rails for side-to-side A4/Foolscap suspended filing. It weighs approximately 99kg.

The following table shows the breakdown of the product materials including packaging.

Material	% of mass
Steel	84%
Polyester Powder Coating	4%
Polymers	< 1%
Carton Board	< 1%
Wood	11%

Table 7: 8ML/100675ME3003D material by % mass

EPD Scope

This is a cradle to grave EPD which is broken down as required into the following processes:

- Upstream processes (cradle to gate) - material and parts production;
- Core processes (gate to gate) - forming of steel sheet, coating, product assembly, packaging and waste treatment of scrap steel;
- Downstream process (gate to gate) distribution, use and end of life waste treatment

The inputs and outputs and travel are captured in each process as shown in Figure 1.

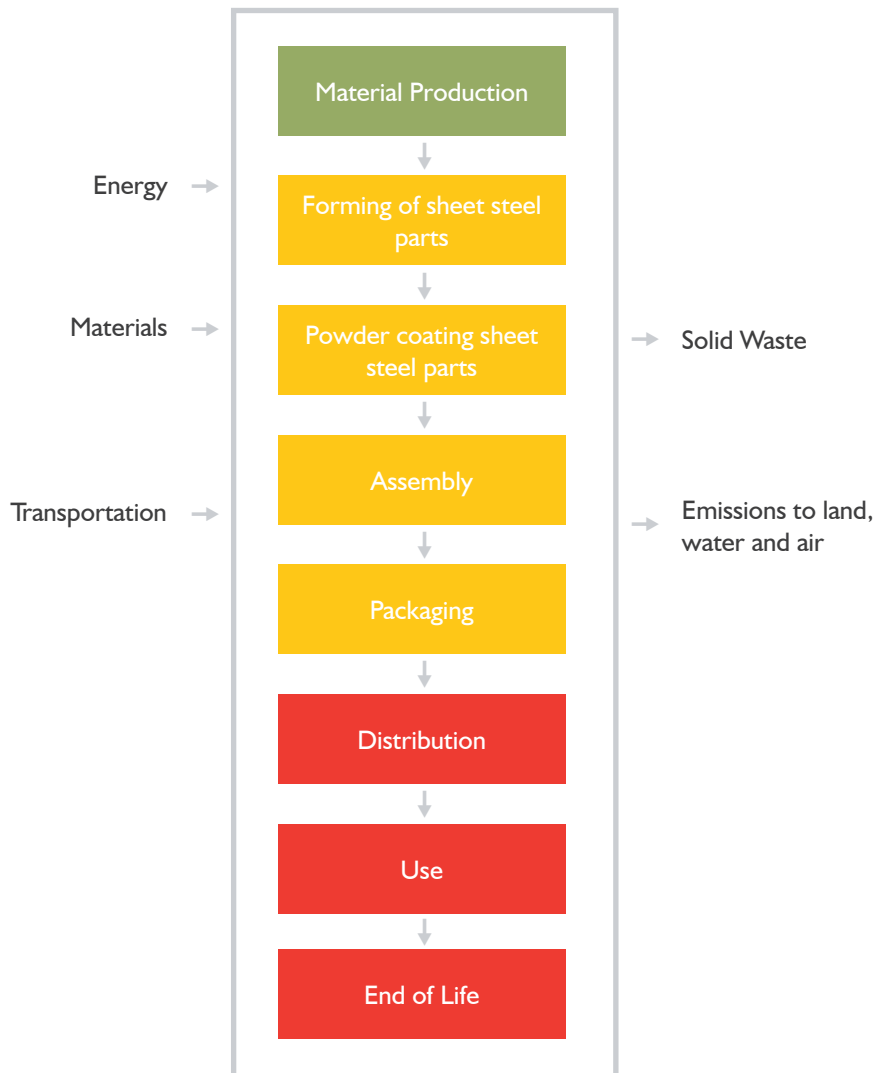


Figure 1: Product life cycle and boundary



Functional Unit

The functional unit is one storage unit used for 15 years. The expected lifetime is approximately 25 years.

Data Source and Data Quality

The analysis conforms to ISO 14040 & ISO 14044 standards which acknowledges the life cycle assessment requirements of key phases beginning with goal and scope definition, inventory, analysis, impact assessment, and interpretation. Each of these phases, along with their associated databases and models, can have associated uncertainties. It is important to acknowledge these uncertainties in decisions regarding design development and improvement, strategic planning, public policy making, or product marketing.

The key sources of data used for the LCAs were as follows:

- Primary data was supplied by KI and their manufacturing contractors
- Ecoinvent v3.5 database (2018), standard data sets on energy, environmental impacts of moulding processes, material production, waste disposal and recycling.
- Data on materials and material sourcing, production energy use, waste, logistic, use etc was collected from KI based upon 2019 and 2020 production

Exclusions and Cut-Off Criteria

When building a life cycle inventory, it is typical to exclude items considered to have a negligible contribution to results. To do this in a robust manner there must be confidence that the exclusion is fair and reasonable. Therefore, cut-off criteria are defined, which allow items to be neglected if they meet the criteria. In this study exclusions could be made if they were expected to be within the below criteria:

- Mass: if a flow is anticipated to be less than 1% of the mass of the product it may be neglected;
- Energy: if a flow is anticipated to be less than 1% of the cumulative energy it may be neglected; and
- Environmental significance: if a flow is anticipated to be less than 1% of the key impact categories it may be excluded

If an item meets one of the criteria but is expected to be significant to one of the other criteria it may not be neglected. For example, if a chemical is small in mass but is expected to have a notable contribution to the environmental results then it may not be excluded.

Life cycle stages that have been omitted from the scope of the study include the following:

- Human energy inputs to processes;
- Infrastructure and capital goods; and
- Transport of employees to and from their normal place of work

Allocation

Ecoinvent default allocation was applied to all processes, except for secondary material use, where cut off allocation is applied.

Assumptions and Estimates

The following assumptions were made:

- Indicative transport modes including lorry and ship type used for the transportation of the materials;
- Production losses through all the processes and these have been based upon supplied data;
- Primary energy used as materials was calculated based upon the gross calorific values of materials;.
- Primary energy used as fuel was calculated by deducting the energy used as materials from the primary energy demand; and
- Secondary materials used including the recycled steel, carton board recycled content and the used pallets.

Environmental Results

The results of the environmental analysis of the products in accordance with the PCR are shown in the following tables.

Two draw cabinet model 8ML/1002552D

Parameter		Unit	Upstream	Core	Downstream	Total
Global Warming Potential (GWP)	Fossil kg CO ₂ eq.	kg CO ₂ eq.	1.28E+02	1.28E+01	7.65E+00	1.48E+02
	Biogenic kg CO ₂ eq.	kg CO ₂ eq.	4.36E+00	1.85E-01	6.14E+00	1.07E+01
	Land use and land transformation	kg CO ₂ eq.	1.44E-01	6.58E-03	3.12E-02	1.82E-01
	Total	kg CO₂ eq.	1.32E+02	1.30E+01	1.38E+01	1.59E+02
Acidification Potential (AP)		kg SO ₂ eq.	1.90E+00	3.06E-02	2.68E-02	1.96E+00
Eutrophication Potential (EP)		kg PO ₄ ³ eq.	2.98E-01	6.86E-03	2.59E-02	3.31E-01
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	5.09E-01	2.88E-02	3.08E-02	5.68E-01
Abiotic depletion potential - Elements (ADPE)		kg Sb eq.	7.780E-04	9.42E-06	1.79E-05	8.07E-04
Abiotic depletion potential - Fossil Fuels (ADPF)		MJ, net calorific value	1.28E+03	1.88E+02	1.03E+02	1.57E+03
Water Scarcity Potential		m ³ eq.	6.23E+01	1.48E+00	1.38E+00	6.51E+01

Table 8: Environmental impacts

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Use as energy carrier (PERE)	MJ, net calorific value	2.83E+01	4.46E+00	7.70E-01	3.36E+01
	Use as raw material (PERM)	MJ, net calorific value	1.08E+02	0.00E+00	0.00E+00	1.08E+02
	Total (PERT)	MJ, net calorific value	1.36E+02	4.46E+00	7.70E-01	1.41E+02
Primary energy resources - Non-Renewable	Use as energy carrier (PENRE)	MJ, net calorific value	1.41E+03	2.43E+02	4.23E+01	1.70E+03
	Use as raw material (PENRM)	MJ, net calorific value	1.44E+02	0.00E+00	0.00E+00	1.44E+02
	Total (PENRT)	MJ, net calorific value	1.55E+03	2.43E+02	4.23E+01	1.84E+03
Secondary material (SM)		kg	3.73E+01	0.00E+00	0.00E+00	3.73E+01
Renewable secondary fuels (RSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable secondary fuels (NRSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water (FW)		m ³	1.83E+00	4.61E-02	5.89E-02	1.93E+00

Table 9: Use of resources



Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed (HWD)	kg	5.90E-03	1.63E-04	5.99E-05	6.13E-03
Non-hazardous waste disposed (NHWD)	kg	3.02E+01	1.37E+01	2.16E+01	6.55E+01
Radioactive waste disposed (RWD)	kg	4.56E-03	1.00E-03	6.16E-04	6.18E-03

Table 10: Waste production

Parameter	Unit	Upstream	Core	Downstream	Total
Components for reuse (CRU)	kg	0.00E+00	0.00E+00	8.32E+00	8.32E+00
Material for recycling (MFR)	kg	1.94E+01	1.37E+01	3.76E+01	7.05E+01
Materials for energy recovery (MER)	kg	0.00E+00	0.00E+00	6.98E+00	6.98E+00
Exported energy, electricity (EEE)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal (EET)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 11: Output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Human toxicity, cancer impacts cases	Cases	4.56E-05	2.30E-07	3.05E-07	4.62E-05
Human toxicity, non-cancer impacts cases	Cases	5.50E-05	1.04E-06	1.505E-06	5.75E-05
Fresh water ecotoxicity	PAF.m3.day	1.30E+06	2.27E+04	1.19E+05	1.44E+06
Land use	Species. Yr.	3.72E-08	2.80E-09	3.04E-09	4.34E-08

Table 12: Other environmental impacts

Two draw cabinet model 8ML/1002552D

Parameter	Unit	Upstream	Core	Downstream	Total	
Global Warming Potential (GWP)	Fossil kg CO ₂ eq.	kg CO ₂ eq.	1.38E+02	1.30E+01	7.672E+00	1.59E+02
	Biogenic kg CO ₂ eq.	kg CO ₂ eq.	4.88E+00	1.86E-01	6.14E+00	1.12E+01
	Land use and land transformation	kg CO ₂ eq.	1.57E-01	6.63E-03	3.12E-03	1.94E-01
	Total	kg CO₂ eq.	1.44E+02	1.32E+01	1.38E+01	1.71E+02
Acidification potential (AP)	kg SO ₂ eq.	2.05E+00	3.13E-02	2.69E-02	2.11E+00	
Eutrophication potential (EP)	kg PO ₄ ³ eq.	3.44E-01	7.01E-03	2.56E-02	3.76E-01	
Formation potential of tropospheric ozone (POCP)	kg NMVOC eq.	5.54E-01	2.97E-02	3.10E-02	6.15E-01	
Abiotic depletion potential – Elements (ADPE)	kg Sb eq.	9.93E-04	9.78E-06	1.83E-05	1.02E-03	
Abiotic depletion potential – Fossil fuels (ADPF)	MJ, net calorific value	1.40E+03	1.91E+02	1.05E+02	1.69E+03	
Water scarcity potential	m ³ eq.	6.60E+01	1.50E+00	1.32E+00	6.88E+01	

Table 13: Environmental impacts

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Use as energy carrier (PERE)	MJ, net calorific value	2.69E+01	4.50E+00	2.19E+00	3.35E+01
	Use as raw material (PERM)	MJ, net calorific value	1.08E+02	0.00E+00	0.00E+00	1.08E+02
	Total (PERT)	MJ, net calorific value	1.35E+02	4.50E+00	2.19E+00	1.41E+02
Primary energy resources - Non-renewable	Use as energy carrier (PENRE)	MJ, net calorific value	1.55E+03	2.47E+02	1.13E+02	1.91E+03
	Use as raw material (PENRM)	MJ, net calorific value	1.54E+02	0.00E+00	0.00E+00	1.54E+02
	Total (PENRT)	MJ, net calorific value	1.70E+03	2.47E+02	1.13E+02	2.06E+03
Secondary material (SM)		kg	3.30E+01	0.00E+00	0.00E+00	3.30E+01
Renewable secondary fuels (RSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable secondary fuels (NRSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water (FW)		m ³	1.94E+00	4.68E-02	3.76E-02	2.03E+00

Table 14: Use of resources

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed (HWD)	kg	6.34E-03	1.67E-04	5.36E-05	6.56E-03
Non-hazardous waste disposed (NHWD)	kg	3.32E+01	1.39E+01	2.15E+01	6.86E+01
Radioactive waste disposed (RWD)	kg	5.00E-03	1.05E-03	6.23E-04	6.67E-03

Table 15: Waste production

Parameter	Unit	Upstream	Core	Downstream	Total
Components for reuse (CRU)	kg	0.00E+00	0.00E+00	8.68E+00	8.68E+00
Material for recycling (MFR)	kg	2.08E+01	9.41E+00	3.95E+01	6.98E+01
Materials for energy recovery (MER)	kg	0.00E+00	0.00E+00	7.13E+00	7.13E+00
Exported energy, electricity (EEE)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal (EET)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 16: Output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Human toxicity, cancer impacts cases	Cases	5.15E-05	2.35E-07	2.958E-07	5.20E-05
Human toxicity, non-cancer impacts cases	Cases	6.97E-05	1.07E-06	1.48E-06	7.23E-05
Fresh water ecotoxicity	PAF.m3.day	1.52E+06	2.30E+04	1.07E+05	1.65E+06
Land use	Species. Yr.	3.25E-08	2.93E-09	1.02E-02	1.02E-02

Table 17: Other environmental impacts



Parameter		Unit	Upstream	Core	Downstream	Total
Global Warming Potential (GWP)	Fossil kg CO ₂ eq.	kg CO ₂ eq.	8.37E+01	1.19E+01	5.03E+00	1.01E+02
	Biogenic kg CO ₂ eq.	kg CO ₂ eq.	2.43E+00	1.80E-01	6.13E+00	8.74E+00
	Land use and land transformation	kg CO ₂ eq.	8.92E-02	6.31E-03	4.55E-02	1.41E-01
	Total	kg CO₂ eq.	8.62E+01	1.21E+01	1.12E+01	1.09E+02
Acidification potential (AP)		kg SO ₂ eq.	1.15E+00	2.65E-02	1.84E-02	1.20E+00
Eutrophication potential (EP)		kg PO ₄ ³ eq.	1.68E-01	6.09E-03	2.28E-02	1.97E-01
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	3.30E-01	2.43E-02	2.14E-02	3.76E-01
Abiotic depletion potential – Elements (ADPE)		kg Sb eq.	2.95E-04	7.82E-06	1.21E-05	3.15E-04
Abiotic depletion potential – Fossil fuels (ADPF)		MJ, net calorific value	8.00E+02	1.74E+02	6.96E+01	1.04E+03
Water scarcity potential		m ³ eq.	4.23E+01	1.03E+00	1.12E+00	4.45E+01

Table 18: Environmental impacts

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Use as energy carrier (PERE)	MJ, net calorific value	-3.25E+01	4.28E+00	2.23E+00	-2.60E+01
	Use as raw material (PERM)	MJ, net calorific value	1.08E+02	0.00E+00	0.00E+00	1.08E+02
	Total (PERT)	MJ, net calorific value	7.53E+01	4.28E+00	2.23E+00	8.18E+01
Primary energy resources - Non-renewable	Use as energy carrier (PENRE)	MJ, net calorific value	8.81E+02	2.28E+02	7.56E+01	1.18E+03
	Use as raw material (PENRM)	MJ, net calorific value	8.92E+01	0.00E+00	0.00E+00	8.92E+01
	Total (PENRT)	MJ, net calorific value	9.71E+02	2.28E+02	7.56E+01	1.27E+03
Secondary material (SM)		kg	3.16E+01	0.00E+00	0.00E+00	3.16E+01
Renewable secondary fuels (RSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable secondary fuels (NRSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water (FW)		m ³	1.24E+00	2.57E-02	3.40E-02	1.30E+00

Table 19: Use of resources

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed (HWD)	kg	4.15E-03	1.57E-04	3.56E-05	4.34E-03
Non-hazardous waste disposed (NHWD)	kg	1.96E+01	1.07E+01	2.00E+01	5.03E+01
Radioactive waste disposed (RWD)	kg	2.87E-03	9.26E-04	3.93E-04	4.19E-03

Table 20: Waste production

Parameter	Unit	Upstream	Core	Downstream	Total
Components for reuse (CRU)	kg	0.00E+00	0.00E+00	4.99E+00	4.99E+00
Material for recycling (MFR)	kg	1.33E+01	7.65E+00	2.34E+01	4.43E+01
Materials for energy recovery (MER)	kg	0.00E+00	0.00E+00	6.02E+00	6.02E+00
Exported energy, electricity (EEE)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal (EET)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 21: Output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Human toxicity, cancer impacts cases	Cases	2.85E-05	2.04E-07	2.11E-07	2.89E-05
Human toxicity, non-cancer impacts cases	Cases	2.29E-05	9.00E-07	1.05E-06	2.48E-05
Fresh water ecotoxicity	PAF.m3.day	7.06E+05	2.12E+04	8.97E+04	8.17E+05
Land use	Species. Yr.	1.88E-08	2.20E-09	8.07E-03	8.07E-03

Table 22: Other environmental impacts

Cupboard 8ML/I00405HX

Parameter	Unit	Upstream	Core	Downstream	Total	
Global Warming Potential (GWP)	Fossil kg CO ₂ eq.	kg CO ₂ eq.	1.23E+02	1.31E+01	7.52E+00	1.44E+02
	Biogenic kg CO ₂ eq.	kg CO ₂ eq.	3.27E+00	1.86E-01	1.14E+01	1.48E+01
	Land use and land transformation	kg CO ₂ eq.	1.13E-01	6.67E-03	4.63E-02	1.66E-01
	Total	kg CO₂ eq.	1.27E+02	1.33E+01	1.89E+01	1.59E+02
Acidification potential (AP)	kg SO ₂ eq.	1.63E+00	3.26E-02	2.86E-02	1.69E+00	
Eutrophication potential (EP)	kg PO ₄ ³ eq.	2.44E-01	7.15E-03	4.00E-02	2.91E-01	
Formation potential of tropospheric ozone (POCP)	kg NMVOC eq.	4.86E-01	3.06E-02	3.36E-02	5.50E-01	
Abiotic depletion potential – Elements (ADPE)	kg Sb eq.	4.03E-04	9.84E-06	1.88E-05	4.32E-04	
Abiotic depletion potential – Fossil fuels (ADPF)	MJ, net calorific value	1.16E+03	1.93E+02	1.08E+02	1.46E+03	
Water scarcity potential	m ³ eq.	6.16E+01	1.44E+00	1.44E+00	6.45E+01	

Table 23: Environmental impacts



Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Use as energy carrier (PERE)	MJ, net calorific value	-1.02E+02	4.52E+00	2.72E+00	-9.48E+01
	Use as raw material (PERM)	MJ, net calorific value	2.08E+02	0.00E+00	0.00E+00	2.08E+02
	Total (PERT)	MJ, net calorific value	1.06E+02	4.52E+00	2.72E+00	1.13E+02
Primary energy resources - Non-renewable	Use as energy carrier (PENRE)	MJ, net calorific value	1.28E+03	2.48E+02	1.18E+02	1.65E+03
	Use as raw material (PENRM)	MJ, net calorific value	1.17E+02	0.00E+00	0.00E+00	1.17E+02
	Total (PENRT)	MJ, net calorific value	1.40E+03	2.48E+02	1.18E+02	1.77E+03
Secondary material (SM)		kg	4.35E+01	0.00E+00	0.00E+00	4.35E+01
Renewable secondary fuels (RSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable secondary fuels (NRSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water (FW)		m ³	1.79E+00	4.40E-02	-1.03E-02	1.83E+00

Table 24: Use of resources

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed (HWD)	kg	5.72E-03	6.44E-04	5.49E-05	6.42E-03
Non-hazardous waste disposed (NHWD)	kg	2.20E+01	2.31E+01	3.95E+01	8.46E+01
Radioactive waste disposed (RWD)	kg	3.21E-03	2.00E-03	6.18E-04	5.83E-03

Table 25: Waste production

Parameter	Unit	Upstream	Core	Downstream	Total
Components for reuse (CRU)	kg	0.00E+00	0.00E+00	7.58E+00	7.58E+00
Material for recycling (MFR)	kg	2.03E+01	2.31E+01	3.64E+01	8.02E+02
Materials for energy recovery (MER)	kg	0.00E+00	0.00E+00	1.08E+01	1.08E+01
Exported energy, electricity (EEE)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal (EET)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 26: Output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Human toxicity, cancer impacts cases	Cases	4.24E-05	2.36E-07	3.19E-07	4.30E-05
Human toxicity, non-cancer impacts cases	Cases	3.23E-05	1.07E-06	1.58E-06	3.49E-05
Fresh water ecotoxicity	PAF.m3.day	1.02E+06	2.32E+04	1.24E+05	1.17E+06
Land use	Species. Yr.	2.59E-08	2.95E-09	3.88E-09	3.28E-08

Table 27: Other environmental impacts

Parameter		Unit	Upstream	Core	Downstream	Total
Global Warming Potential (GWP)	Fossil kg CO ₂ eq.	kg CO ₂ eq.	1.51E+02	1.36E+01	8.33E+00	1.73E+02
	Biogenic kg CO ₂ eq.	kg CO ₂ eq.	4.38E+00	1.89E-01	1.14E+01	1.59E+01
	Land use and land transformation	kg CO ₂ eq.	1.36E-01	6.85E-03	4.65E-02	1.89E-01
	Total	kg CO₂ eq.	1.55E+02	1.38E+01	1.98E+01	1.89E+02
Acidification potential (AP)		kg SO ₂ eq.	2.39E+00	3.67E-02	3.18E-02	2.46E+00
Eutrophication potential (EP)		kg PO ₄ ³ eq.	3.09E-01	7.73E-03	4.06E-02	3.57E-01
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	5.99E-01	3.42E-02	3.72E-02	6.70E-01
Abiotic depletion potential – Elements (ADPE)		kg Sb eq.	5.84E-04	1.06E-05	2.10E-05	6.15E-04
Abiotic depletion potential – Fossil fuels (ADPF)		MJ, net calorific value	1.46E+03	2.01E+02	1.21E+02	1.78E+03
Water scarcity potential		m ³ eq.	7.81E+01	1.49E+00	1.56E+00	8.12E+01

Table 28: Environmental impacts

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Use as energy carrier (PERE)	MJ, net calorific value	-7.04E+01	4.63E+00	3.10E+00	-6.27E+01
	Use as raw material (PERM)	MJ, net calorific value	2.08E+02	0.00E+00	0.00E+00	2.08E+02
	Total (PERT)	MJ, net calorific value	1.37E+02	4.63E+00	3.10E+00	1.45E+02
Primary energy resources - Non-renewable	Use as energy carrier (PENRE)	MJ, net calorific value	1.61E+03	2.57E+02	1.23E+05	1.25E+05
	Use as raw material (PENRM)	MJ, net calorific value	1.73E+02	0.00E+00	0.00E+00	1.73E+02
	Total (PENRT)	MJ, net calorific value	1.78E+03	2.57E+02	1.23E+05	1.25E+05
Secondary material (SM)		kg	5.63E+01	0.00E+00	0.00E+00	5.63E+01
Renewable secondary fuels (RSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable secondary fuels (NRSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water (FW)		m ³	2.29E+00	4.57E-02	4.23E-02	2.38E+00

Table 29: Use of resources

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed (HWD)	kg	7.32E-03	1.72E-04	6.16E-05	7.55E-03
Non-hazardous waste disposed (NHWD)	kg	3.60E+01	1.85E+01	2.83E+01	8.28E+01
Radioactive waste disposed (RWD)	kg	5.44E-03	1.11E-03	6.96E-04	7.25E-03

Table 30: Waste production

Parameter	Unit	Upstream	Core	Downstream	Total
Components for reuse (CRU)	kg	0.00E+00	0.00E+00	8.80E+00	8.80E+00
Material for recycling (MFR)	kg	2.31E+01	1.33E+01	4.06E+01	7.70E+02
Materials for energy recovery (MER)	kg	0.00E+00	0.00E+00	1.20E+01	1.20E+01
Exported energy, electricity (EEE)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal (EET)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 31: Output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Human toxicity, cancer impacts cases	Cases	5.08E-05	2.50E-07	2.45E-02	2.45E-02
Human toxicity, non-cancer impacts cases	Cases	4.31E-05	1.15E-06	1.01E-01	1.01E-01
Fresh water ecotoxicity	PAF.m3.day	1.29E+06	2.41E+04	1.33E+04	1.32E+06
Land use	Species. Yr.	3.32E-08	3.24E-09	4.24E-09	4.07E-08

Table 32: Other environmental impacts

Drawer Cabinet I00675ME3003D

Parameter	Unit	Upstream	Core	Downstream	Total	
Global Warming Potential (GWP)	Fossil kg CO ² eq.	kg CO ² eq.	2.51E+02	1.62E+01	1.28E+01	2.80E+02
	Biogenic kg CO ² eq.	kg CO ² eq.	6.96E+00	2.01E-01	1.14E+01	1.86E+01
	Land use and land transformation	kg CO ² eq.	2.06E-01	7.56E-03	4.78E-02	2.62E-01
	Total	kg CO² eq.	2.58E+02	1.64E+01	2.43E+01	2.99E+02
Acidification potential (AP)	kg SO ² eq.	3.17E+00	4.73E-02	4.80E-02	3.26E+00	
Eutrophication potential (EP)	kg PO ₄ ³ eq.	5.58E-01	9.78E-03	4.51E-02	6.13E-01	
Formation potential of tropospheric ozone (POCP)	kg NMVOC eq.	9.96E-01	4.64E-02	5.56E-02	1.10E+00	
Abiotic depletion potential – Elements (ADPE)	kg Sb eq.	1.26E-03	1.51E-05	3.21E-05	1.30E-03	
Abiotic depletion potential – Fossil fuels (ADPF)	MJ, net calorific value	2.38E+03	2.41E+02	1.87E+02	2.81E+03	
Water scarcity potential	m ³ eq.	1.20E+02	1.44E+00	2.19E+00	1.24E+02	

Table 33: Environmental impacts



Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Use as energy carrier (PERE)	MJ, net calorific value	7.20E+00	5.08E+00	4.06E+00	1.63E+01
	Use as raw material (PERM)	MJ, net calorific value	2.08E+02	0.00E+00	0.00E+00	2.08E+02
	Total (PERT)	MJ, net calorific value	2.15E+02	5.08E+00	4.06E+00	2.24E+02
Primary energy resources - Non-renewable	Use as energy carrier (PENRE)	MJ, net calorific value	2.67E+03	3.01E+02	1.85E+05	1.88E+05
	Use as raw material (PENRM)	MJ, net calorific value	2.11E+02	0.00E+00	0.00E+00	2.11E+02
	Total (PENRT)	MJ, net calorific value	2.88E+03	3.01E+02	1.85E+05	1.88E+05
Secondary material (SM)		kg	8.33E+01	0.00E+00	0.00E+00	8.33E+01
Renewable secondary fuels (RSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable secondary fuels (NRSF)		MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water (FW)		m ³	3.50E+00	3.96E-02	5.29E-02	3.60E+00

Table 34: Use of resources

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed (HWD)	kg	1.23E-02	1.04E-04	1.86E-04	1.26E-02
Non-hazardous waste disposed (NHWD)	kg	5.89E+01	3.02E+01	3.08E+01	1.20E+02
Radioactive waste disposed (RWD)	kg	8.42E-03	1.36E-03	1.12E-03	1.09E-02

Table 35: Waste production

Parameter	Unit	Upstream	Core	Downstream	Total
Components for reuse (CRU)	kg	0.00E+00	0.00E+00	1.48E+01	1.48E+01
Material for recycling (MFR)	kg	3.75E+01	2.16E+01	6.87E+01	1.28E+02
Materials for energy recovery (MER)	kg	0.00E+00	0.00E+00	1.25E+01	1.25E+01
Exported energy, electricity (EEE)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal (EET)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 36: Output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Human toxicity, cancer impacts cases	Cases	9.25E-05	3.13E-07	3.92E-02	3.93E-02
Human toxicity, non-cancer impacts cases	Cases	9.56E-05	1.52E-06	1.62E-01	1.62E-01
Fresh water ecotoxicity	PAF.m3.day	2.41E+06	2.80E+04	1.93E+04	2.46E+06
Land use	Species. Yr.	5.10E-08	4.94E-09	4.96E-09	6.09E-08

Table 37: Other environmental impacts



References

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