Environmental Product Declaration

EPD®

In accordance with ISO 14025 and Product Category Rules for Absorbent Hygiene Products

Baby diapers

Libero assortment
DryKids

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Essity is a leading global hygiene and health company

Essity is a leading global hygiene and health company that develops, produces, and sells personal care (baby care, feminine care, incontinence products, and medical solutions), consumer tissue, and professional hygiene products and solutions.

We are dedicated to improving well-being through leading hygiene and health solutions. Sales are conducted in approximately 150 countries under many strong brands, including the leading global brands TENA and Tork, as well as Leukoplast, Libero, Libresse, Lotus, Nosotras, Saba, Tempo, Vinda, and Zewa.

Essity has about 46 000 employees and net sales in 2019 amounted to SEK 129 bn (EUR 12.2 bn). The business operations are based on a sustainable business model with a focus on value creation for people and nature.

The company has its headquarters in Stockholm, Sweden, and is listed on Nasdaq Stockholm. Essity breaks barriers to well-being and contributes to a healthy, sustainable, and circular society. More information at www.essity.com.

TENA is a part of Essity

Through our TENA brand, we offer a broad range of incontinence products and services. The clear purpose of this offering is to care for people, improve their quality of life, and help them live with dignity and confidence.

For our institutional customers, such as nursing homes, it also means reducing costs while increasing efficiency and quality of care. This is done through a combination of high-quality products and qualified advisory services that simplify handling procedures for care providers.

Since incontinence is often surrounded by a social taboo, enhancing quality of life also means promoting an open dialogue to break down the stigma. So, in addition to providing products that improve health and hygiene, we're working hard to raise awareness, provide training and global forums, and drive high-level dialogues around the world.

At TENA we're continually innovating new products that are increasingly discrete, comfortable, effective, and easy to use, while also reducing our carbon footprint. To make a better mark – for people, and for the planet.

TENA assortment	
TENA Female Liners & Pads	A drier, safer, and more comfortable product than ordinary menstrual towel. The liners and pads give triple protection against leaks, odour, and moisture. The products are body shaped for comfort, protection, and discretion.
TENA Men	TENA Men are discreet and safe protection for men who experience urine leakage. Specially developed for men who wants discretion and continue to live an active life.
TENA Pants & Underwear	Close body fit for security and confidence. High performance products that are as easy to put on as underwear. TENA Pants & Underwear are available in a range of absorbency levels and sizes.
TENA Flex	A belted product with added absorbency that allows for easier, more ergonomic changing and with a comfortable, discreet fit. TENA Flex provides anatomically shaped protection with double absorption cores for leakage security.
TENA Comfort TENA Rectangular	The pad is designed to provide incontinence protection for skin health and leakage security. Available in a range of absorbency levels and specially designed to be worn with TENA fixation pants. The products are suitable for all types of incontinence.
TENA Slip	All-in-one incontinence products are designed to provide protection for healthy skin and high leakage security. The products are available in a range of sizes and absorbency levels and are suitable for all types of incontinence.
TENA Fix	A seamless, washable and reusable fixation pant supporting leakage security. Ensures that TENA Comfort and TENA Rectangular pads stay securely in place. Soft and elastic material provides comfort. Can be washed several times without losing shape.
TENA Bed	Provides protection for beds and chairs against accidental urine loss and during hygiene procedures. Dermatologically tested so it is gentle to the skin. Available in a range of sizes and absorbency levels.
Baby diaper assortment	
Libero assortment	The Libero assortment fulfils the demands for premium-brand baby diaper and the diapers have an absorption capacity/function that cover different steps of the baby's diaper needs. The diapers consist of an absorbent core, anti-leakage barrier, fastening system, and a back sheet. The assortment is uni-sex. Libero Newborn, Comfort, UP&GO, Touch, and Sleep Tight are all labelled with the Nordic Swan.
DryKids	DryKids assortment of breathable diapers for children quickly absorb urine and help to keep the child’s skin dry and healthy.

This environmental declaration covers the following Libero products		Article number	Dimension (mm)	Weight ± 5% (g)	License number
1	Libero Newborn 1	6349 8417	350 x 216	16	3023 0023 / 30230032
2	Libero Newborn 2	6332 8419	390 x 216	20	3023 0023
3	Libero Comfort 3	8302 8190	445 x 233	26	3023 0023
4	Libero Comfort 4	6319 8303 8198	480 x 233	30	3023 0023
5	Libero Comfort 5	5536 8305 8206	480 x 233	31	3023 0023
6	Libero Comfort 6	8306 8208	520 x 249	35	3023 0023
7	Libero Comfort 7	8307 8210	560 x 345	40	3023 0023
8	Libero UP&GO 5	8225	476 x 365	36	3023 0038
9	Libero UP&GO 6	8232	516 x 390	40	3023 0038
10	Libero UP&GO 7	8239	536 x 410	43	3023 0038
11	Libero UP&GO 8	8242	536 x 410	47	3023 0038
12	Libero Touch Premature	7976	320 x 173	13	3023 0032
13	Libero Sleep Tight 9	8384 8385 8685	536 x 284	46	5023 0001
14	Libero Sleep Tight 10	8386 8387 8387	588 x 330	51	5023 0001

This environmental declaration covers the following DryKids products		Article number	Dimension (mm)	Weight ± 5% (g)
15	Dry Kids Maxi	5358	480 x 233	28
16	Dry Kids XL	5369	520 x 249	33
17	Dry Kids XL+	5619	560 x 245	37

The way we work

We assess the environmental impact of our products using a full life cycle approach, beginning with product design, through to manufacturing, transport, use, and disposal.

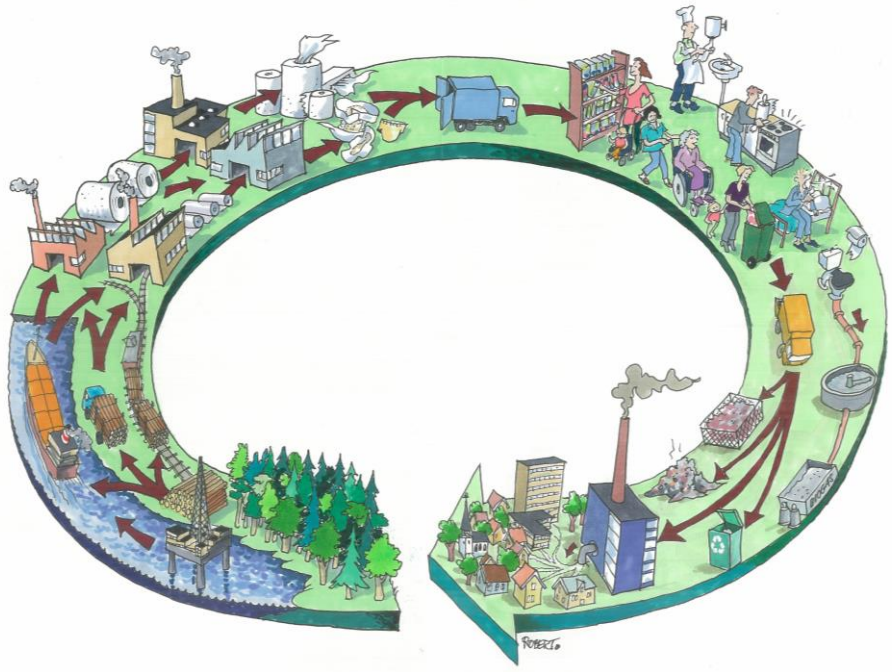
RESPONSIBLE SOURCING involves seeking high-quality raw materials that are safe from both a social and environmental perspective. The company's suppliers adhere to strict demands in Essity's Global Supplier Standard

RESOURCE EFFICIENT PRODUCTION is efficient use of resources, and the continuous reduction of energy and waste. Essity's objective is to develop products and services for a sustainable and circular society. The TENA production units are working with the management systems ISO 9001, ISO 14001 and OHSA 18001.

SUSTAINABLE SOLUTIONS are safe and environmentally sound innovations for hygiene products and services, based on customer and consumer insights, enabling us to meet their needs in daily life.

Environmental performance of our products

The information presented in an environmental product declaration is obtained from a Life Cycle Assessment (LCA), which is a study of the potential environmental impact of a product throughout its life cycle, including production of raw materials and products, use of the product, after use processes, and transports.



Environmental achievements

The following carbon footprint reductions for different TENA product groups have been achieved by working in a structured way to continually improve performance and efficiency.

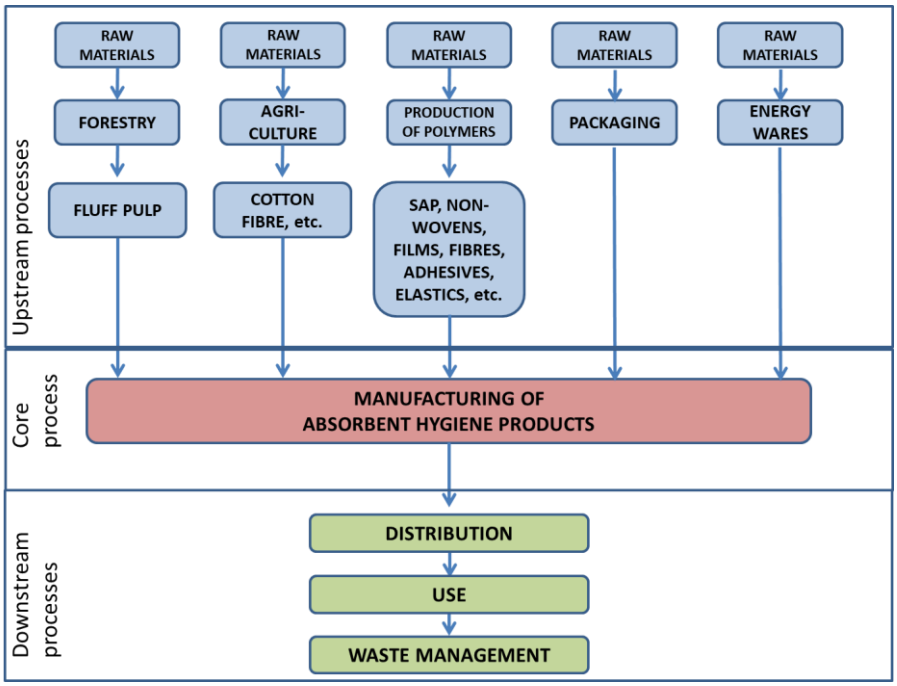
Product	Carbon footprint reduction Year 2008 – 2019
TENA Flex	- 18 %
TENA Female Liners & Pads	- 33 %
TENA Men	- 20 %
TENA Pants & Underwear	- 33 %
TENA Slip	- 20 %
TENA Comfort	- 19 %
TENA Bed	- 11 %

The LCA is conducted by Essity and verified by IVL, Swedish Environmental Research Institute Ltd, 2019. The carbon footprint reductions in Europe between 2008-2019 for TENA products are based on Life Cycle Assessments.

Production of TENA products

TENA products are made using high-quality materials, with strict requirements on product safety. The materials used are cellulose fibers from certified forestry and purpose-specific plastic materials. Production takes place at high-technology facilities with stringent hygienic and product safety standards that guarantee product quality and ensure users' safety and well-being.

Life cycle of an absorbent hygiene product



UPSTREAM PROCESSES
Extraction of natural resources, biomass production
Production of raw materials, energy wares, packaging materials
Transportation of input raw materials

CORE PROCESS
Manufacturing of TENA products

DOWNSTREAM PROCESSES
Transportation to customer
Product use
Waste management (including packaging)

LIFE CYCLE DESCRIPTION

The life cycle of a TENA product starts with the **UPSTREAM PROCESSES:** These include extraction of natural resources for the different raw materials as well as fuel production for both heat and power generation. The production of the raw materials, such as fluff pulp and superabsorbent polymers for the absorbent core, nonwovens for inner lining, and plastic films for the outer shell are part of the upstream processes. Transports of raw materials to the manufacturing

The **CORE PROCESS**, the actual manufacturing of the different TENA products, is a highly efficient converting process where the different materials are put together with high precision, which results in well performing products with an efficient use of resources thanks to innovative design and scientific solutions. The core process also includes handling of production waste.

In the **DOWNSTREAM PROCESSES,** the products are transported to the customer either in the homecare segment or for institutional users. The use phase as such has no environmental impact and gives therefore no contribution to the calculations. The final step is the waste management, also including handling of packaging waste.

The life cycle calculations for TENA products in this EPD are “cradle-to-grave”

Parameters in the declaration

FUNCTIONAL UNIT	The functional unit is according to PCR 2011:14, one product. In addition, the result is reported for a standard number of products used for one day, which is defined as four products.
CALCULATION OF GLOBAL WARMING POTENTIAL	Both emissions to and removals of CO_2 from the atmosphere, originating from both fossil and biogenic sources, are accounted for with a time interval of 100 years. Removal of carbon dioxide into growing trees and emissions of carbon dioxide corresponding to the content of biogenic carbon in the product is reported as CO_2 removals and biogenic CO_2 emissions, respectively.
WASTE MANAGEMENT SCENARIO	The waste management is calculated based on the sales of TENA products on the EU market, with an average waste handling for EU 27 (EUROSTAT 2019) giving a scenario with 55 % incineration and 45 % landfill. Impacts of incineration process with energy recovery are attributed 50 % to the product and 50 % to the energy recovery process. Benefits and credits of energy recovery are attributed 100 % to energy recovery (outside system boundaries). Biogenic CO_2 associated with waste management, is reported.
REPRESENTATIVE PRODUCT	A representative product is chosen when there are minor variations for the same product, such as technology and packaging. In the EPD, the representation of such different TENA products is done by a representative product, i.e. more than one product can be represented by the same calculation. The representative product always has the highest environmental impact, and hence a conservative approach is taken for the results. However, the variations within the different tiered products is not more than +/- 10 %, which follows the General Programme Instructions.
LIST OF MATERIALS	The materials listed in the composition table are combined into three groups in order to keep a level of confidentiality. A general list of content is also shown. For the life cycle calculations each product's particular specification have been used.
MANUFACTURING SITES	Baby diapers are manufactured in one of the following factories; Falkenberg/Sweden, Olawa/Poland, Hoogezand/Netherlands, Veniov/Russia or Valls/Spain. Two articles are with external supplier in Europe. The production sites are certified with management systems for quality, environment and health and safety: ISO 9001 (all), ISO 14001 (excl. Veniov) and OHSA 18001 (all). For the life cycle calculations each product's actual production site with specific production data is used.
GEOGRAPHICAL SCOPE	This EPD covers products sold in Europe.
VALIDITY OF DATA	The most important raw materials in the products, pulp and SAP, are mainly data from 2016 - 2018. Supplier data for raw materials like film and nonwoven as well as other, minor materials are mainly from 2009-2016. Manufacturing data are from 2019. Article specifications are from 2020, with a few specifications from 2019.
THOUSAND SEPARATOR AND DECIMAL MARK	SI style (French version): 1 234,56; i.e. comma is used as decimal mark. Number of value digits: 3
PACKAGING	The packaging consists of a consumer pack, a polyethylene plastic bag, and transport packaging of corrugated board boxes, i.e. made of renewable fibers.

Additional environmental information

WOOD PULP: Essity works with a strict sourcing policy and only use fibers from known sources. The suppliers are expected to continually increase the proportion of certified fibers from recognized certification schemes.

Certifications: All fluff pulp suppliers for TENA products are FSC Chain-of-Custody certified and all pulp meet as a minimum the FSC controlled wood standard, in addition to other forest certification schemes that may be applied.

ECF pulp: All pulps used for TENA products are produced in Elementary Chlorine Free (ECF) processes.

PLASTIC MATERIALS: All the plastic materials used in products for the European market do not intentionally contain lead, hexavalent chrome and related compounds, phthalates, acrylamide, antimony, brominated flame retardants, or organotin compounds, except in form of impurities. The additives used in plastics comply with the EC Regulations No. 1272/2008 and No. 1907/2006 (REACH), and their subsequent amendments.
Lotions, creams and/or deodorant substances are not added to the products. Inks or dyes that may be present are used for functional requirements and not for aesthetic-commercial purposes.

PACKAGING: Packaging meets the requirements of Annex F of part IV, Legislative Decree 152/2006. Corrugated board boxes for transport packaging are made of at least 80 % recycled fibers

Update of TENA EPDs

The TENA EPDs were first published in 2015, and the number of articles for the TENA product groups have increased over the years. All EPDs were valid until October 2020 and are now updated with new calculations for all articles. The new results show in general improved environmental performance of the products. This corresponds well with actual product development for the TENA assortment. There is usually less materials used for updated product specifications, because of new and better product design, and improved materials. Also improved production by suppliers and in TENA manufacturing sites adds to the results presented in the EPDs.

Environmental Product Declaration
Verification & Programme Information

The calculations for the environmental product declaration (EPD) are performed according to ISO 14040 and ISO 14044, ISO 14025.

EPD's within the same product category but from different programmes may not be comparable.

Product category rules (PCR): Absorbent Hygiene Products, 2011:14, version 3.01, UN CPC 32193 General Programme Instructions ver.3.01
Programme operator: EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden e-mail: info@environdec.com
Product Category Rules review was conducted by: The Technical Committee of the International EPD® System. Chair: Massimo Marino Contact via info@environdec.com
Independent verification of the declaration and data, according to ISO 14025:2006: ☐ EPD process certification ☒ EPD verification
Procedure for follow up of data during EPD validity involves third party verifier: ☐ Yes ☒ No
Third party verifier: Håkan Stripple at IVL Swedish Environmental Research Institute, P.O. Box 53021, SE-400 14 Gothenburg, Sweden Hakan.Stripple@IVL.se Accredited by : Håkan Stripple is an independent individual verifier in the International EPD® System.
Declaration owner: Essity Hygiene & Health AB SE-405 03 GÖTEBORG Anna-Karin Gunnergren, anna-karin.gunnergren@essity.com The EPD owner has the sole ownership, liability, and responsibility for the EPD

Libero assortment & DryKids - environmental performance

The Libero assortment fulfils the demands for premium-brand baby diaper and the diapers have an absorption capacity/function that cover different steps of the baby's diaper needs. The diapers consist of an absorbent core, anti-leakage barrier, fastening system, and a back sheet. The assortment is uni-sex.
Libero Newborn, Comfort, UP&GO, Touch, and Sleep Tight are all labelled with the Nordic Swan.

DryKids assortment of breathable diapers for children quickly absorb urine and help to keep the child’s skin dry and healthy.

Composition for Libero products (specific composition is used in all calculations).	
Pulp	25 - 26 %
Polymers	50 - 52 %
Plastics	23 - 24 %

Content declaration
Calcium carbonate
Cellulose pulp
Glue
Ink
Polyester
Polyethylene
Polypropylene
Super absorbent
Synthetic elastics

1. Libero Newborn 1 6349 & 8417

3023 0023 / 3023 0032

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,036	0,006	0,011	0,053
	Biogenic	kg CO_2 eq.	-0,005	0,000	0,002	-0,003
	Land use and land transformation	kg CO_2 eq.	0,00002	0,00000	0,00002	0,00005
	Total	kg CO_2 eq.	0,031	0,006	0,013	0,050
Acidification potential (AP)		kg SO_2 eq.	1,36E-04	6,81E-06	6,74E-06	1,50E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	2,60E-05	9,25E-07	3,65E-06	3,06E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,02E-04	5,63E-06	4,09E-06	1,12E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	4,62E-08	5,02E-10	2,95E-11	4,67E-08
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	9,12E-01	6,40E-02	2,45E-02	1,00E+00
Water scarcity potential		m^3 eq.	1,28E+00	1,84E-03	1,64E-03	1,28E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,62E-01	1,24E-02	1,64E-03	1,76E-01
	Used as raw materials	MJ, net calorific value	5,77E-02	(N/A)	(N/A)	5,77E-02
	Total	MJ, net calorific value	2,19E-01	1,24E-02	1,64E-03	2,34E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	1,00E+00	9,29E-02	2,53E-02	1,12E+00
	Used as raw materials	MJ, net calorific value	3,05E-01	1,15E-04	4,63E-04	3,06E-01
	Total	MJ, net calorific value	1,31E+00	9,30E-02	2,57E-02	1,43E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,39E-03	1,80E-04	5,87E-05	3,63E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,34E-06	4,26E-11	9,78E-10	1,34E-06
Non-hazardous waste disposed	kg	1,81E-04	3,15E-05	5,43E-03	5,64E-03
Radioactive waste disposed	kg	1,37E-05	1,18E-05	2,06E-07	2,57E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	8,15E-03	8,15E-03
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

1. Libero Newborn 1 6349 & 8417

3023 0023 / 3023 0032

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,145	0,022	0,044	0,212
	Biogenic	kg CO_2 eq.	-0,021	0,000	0,008	-0,013
	Land use and land transformation	kg CO_2 eq.	0,00010	0,00002	0,00008	0,00020
	Total	kg CO_2 eq.	0,124	0,022	0,053	0,199
Acidification potential (AP)		kg SO_2 eq.	5,44E-04	2,73E-05	2,70E-05	5,99E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	1,04E-04	3,70E-06	1,46E-05	1,22E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	4,10E-04	2,25E-05	1,64E-05	4,49E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,85E-07	2,01E-09	1,18E-10	1,87E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	3,65E+00	2,56E-01	9,81E-02	4,00E+00
Water scarcoty potential		m^3 eq.	5,11E+00	7,37E-03	6,55E-03	5,12E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	6,47E-01	4,95E-02	6,56E-03	7,03E-01
	Used as raw materials	MJ, net calorific value	2,31E-01	(N/A)	(N/A)	2,31E-01
	Total	MJ, net calorific value	8,78E-01	4,95E-02	6,56E-03	9,34E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	4,02E+00	3,71E-01	1,01E-01	4,49E+00
	Used as raw materials	MJ, net calorific value	1,22E+00	4,61E-04	1,85E-03	1,22E+00
	Total	MJ, net calorific value	5,24E+00	3,72E-01	1,03E-01	5,72E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	1,36E-02	7,22E-04	2,35E-04	1,45E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	5,37E-06	1,71E-10	3,91E-09	5,37E-06
Non-hazardous waste disposed	kg	7,24E-04	1,26E-04	2,17E-02	2,26E-02
Radioactive waste disposed	kg	5,46E-05	4,72E-05	8,25E-07	1,03E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	3,26E-02	3,26E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

2. Libero Newborn 2 6332 & 8419

3023 0023

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,044	0,007	0,013	0,064
	Biogenic	kg CO_2 eq.	-0,005	0,000	0,002	-0,003
	Land use and land transformation	kg CO_2 eq.	0,00003	0,00001	0,00002	0,00006
	Total	kg CO_2 eq.	0,039	0,007	0,015	0,061
Acidification potential (AP)		kg SO_2 eq.	1,67E-04	8,58E-06	8,26E-06	1,84E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	3,00E-05	1,16E-06	4,15E-06	3,53E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,28E-04	7,08E-06	4,79E-06	1,40E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	7,06E-08	6,33E-10	7,11E-11	7,13E-08
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,12E+00	8,06E-02	3,01E-02	1,23E+00
Water scarcity potential		m^3 eq.	1,47E+00	2,32E-03	2,13E-03	1,48E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,67E-01	1,56E-02	2,03E-03	1,85E-01
	Used as raw materials	MJ, net calorific value	5,77E-02	(N/A)	(N/A)	5,77E-02
	Total	MJ, net calorific value	2,25E-01	1,56E-02	2,03E-03	2,42E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	1,23E+00	1,17E-01	3,09E-02	1,38E+00
	Used as raw materials	MJ, net calorific value	3,39E-01	1,45E-04	4,51E-04	3,40E-01
	Total	MJ, net calorific value	1,57E+00	1,17E-01	3,14E-02	1,72E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	4,99E-03	2,27E-04	7,63E-05	5,29E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,50E-06	5,37E-11	1,17E-09	1,50E-06
Non-hazardous waste disposed	kg	2,36E-04	3,97E-05	7,24E-03	7,52E-03
Radioactive waste disposed	kg	1,90E-05	1,48E-05	2,63E-07	3,41E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,03E-02	1,03E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

2. Libero Newborn 2 6332 & 8419

3023 0023

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,177	0,028	0,053	0,258
	Biogenic	kg CO_2 eq.	-0,021	0,000	0,008	-0,013
	Land use and land transformation	kg CO_2 eq.	0,00012	0,00002	0,00010	0,00024
	Total	kg CO_2 eq.	0,156	0,028	0,061	0,245
Acidification potential (AP)		kg SO_2 eq.	6,68E-04	3,43E-05	3,30E-05	7,35E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	1,20E-04	4,66E-06	1,66E-05	1,41E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	5,13E-04	2,83E-05	1,92E-05	5,60E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	2,82E-07	2,53E-09	2,85E-10	2,85E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorofic value	4,46E+00	3,22E-01	1,20E-01	4,91E+00
Water scarcoty potential		m^3 eq.	5,89E+00	9,28E-03	8,54E-03	5,91E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorofic value	6,68E-01	6,23E-02	8,12E-03	7,39E-01
	Used as raw materials	MJ, net calorofic value	2,31E-01	(N/A)	(N/A)	2,31E-01
	Total	MJ, net calorofic value	8,99E-01	6,23E-02	8,12E-03	9,70E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorofic value	4,92E+00	4,68E-01	1,24E-01	5,51E+00
	Used as raw materials	MJ, net calorofic value	1,36E+00	5,80E-04	1,81E-03	1,36E+00
	Total	MJ, net calorofic value	6,28E+00	4,68E-01	1,26E-01	6,87E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	1,99E-02	9,09E-04	3,05E-04	2,12E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	6,00E-06	2,15E-10	4,70E-09	6,00E-06
Non-hazardous waste disposed	kg	9,45E-04	1,59E-04	2,90E-02	3,01E-02
Radioactive waste disposed	kg	7,58E-05	5,94E-05	1,05E-06	1,36E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	4,11E-02	4,11E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

3. Libero Comfort 3 8302 & 8190

3023 0023

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,052	0,009	0,017	0,077
	Biogenic	kg CO_2 eq.	-0,011	0,000	0,004	-0,007
	Land use and land transformation	kg CO_2 eq.	0,00003	0,00001	0,00003	0,00007
	Total	kg CO_2 eq.	0,041	0,009	0,020	0,070
Acidification potential (AP)		kg SO_2 eq.	2,09E-04	1,12E-05	1,08E-05	2,31E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	3,69E-05	1,52E-06	6,22E-06	4,47E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,60E-04	9,22E-06	6,82E-06	1,76E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	9,17E-08	8,23E-10	1,26E-10	9,27E-08
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,28E+00	1,05E-01	3,83E-02	1,42E+00
Water scarcity potential		m^3 eq.	1,58E+00	3,02E-03	2,61E-03	1,59E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	2,81E-01	2,03E-02	2,56E-03	3,04E-01
	Used as raw materials	MJ, net calorific value	1,15E-01	(N/A)	(N/A)	1,15E-01
	Total	MJ, net calorific value	3,97E-01	2,03E-02	2,56E-03	4,19E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	1,41E+00	1,52E-01	3,95E-02	1,60E+00
	Used as raw materials	MJ, net calorific value	3,62E-01	1,89E-04	8,70E-04	3,63E-01
	Total	MJ, net calorific value	1,77E+00	1,52E-01	4,03E-02	1,96E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	6,19E-03	2,96E-04	9,35E-05	6,57E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,75E-06	6,99E-11	1,51E-09	1,75E-06
Non-hazardous waste disposed	kg	3,03E-04	5,17E-05	8,46E-03	8,82E-03
Radioactive waste disposed	kg	2,37E-05	1,93E-05	3,28E-07	4,33E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,34E-02	1,34E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

3. Libero Comfort 3 8302 & 8190

3023 0023

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,207	0,036	0,066	0,310
	Biogenic	kg CO_2 eq.	-0,043	0,000	0,015	-0,028
	Land use and land transformation	kg CO_2 eq.	0,00014	0,00003	0,00012	0,00029
	Total	kg CO_2 eq.	0,164	0,036	0,082	0,282
Acidification potential (AP)		kg SO_2 eq.	8,35E-04	4,47E-05	4,32E-05	9,22E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	1,48E-04	6,06E-06	2,49E-05	1,79E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	6,41E-04	3,69E-05	2,73E-05	7,05E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	3,67E-07	3,29E-09	5,03E-10	3,71E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	5,11E+00	4,19E-01	1,53E-01	5,68E+00
Water scarcoty potential		m^3 eq.	6,33E+00	1,21E-02	1,05E-02	6,35E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,12E+00	8,11E-02	1,02E-02	1,22E+00
	Used as raw materials	MJ, net calorific value	4,62E-01	(N/A)	(N/A)	4,62E-01
	Total	MJ, net calorific value	1,59E+00	8,11E-02	1,02E-02	1,68E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	5,63E+00	6,09E-01	1,58E-01	6,40E+00
	Used as raw materials	MJ, net calorific value	1,45E+00	7,55E-04	3,48E-03	1,45E+00
	Total	MJ, net calorific value	7,08E+00	6,09E-01	1,61E-01	7,85E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	2,47E-02	1,18E-03	3,74E-04	2,63E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	6,99E-06	2,79E-10	6,05E-09	6,99E-06
Non-hazardous waste disposed	kg	1,21E-03	2,07E-04	3,38E-02	3,53E-02
Radioactive waste disposed	kg	9,46E-05	7,73E-05	1,31E-06	1,73E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	5,34E-02	5,34E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

4. Libero Comfort 4 6319 & 8303 & 8198

3023 0023

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,060	0,011	0,019	0,090
	Biogenic	kg CO_2 eq.	-0,012	0,000	0,004	-0,008
	Land use and land transformation	kg CO_2 eq.	0,00004	0,00001	0,00004	0,00009
	Total	kg CO_2 eq.	0,048	0,011	0,023	0,082
Acidification potential (AP)		kg SO_2 eq.	2,43E-04	1,31E-05	1,26E-05	2,69E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	4,26E-05	1,78E-06	7,19E-06	5,16E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,88E-04	1,08E-05	7,90E-06	2,07E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,12E-07	9,67E-10	1,55E-10	1,14E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorofic value	1,49E+00	1,23E-01	4,44E-02	1,66E+00
Water scarcity potential		m^3 eq.	1,84E+00	3,55E-03	3,08E-03	1,85E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorofic value	3,22E-01	2,38E-02	2,98E-03	3,49E-01
	Used as raw materials	MJ, net calorofic value	1,32E-01	(N/A)	(N/A)	1,32E-01
	Total	MJ, net calorofic value	4,54E-01	2,38E-02	2,98E-03	4,80E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorofic value	1,64E+00	1,79E-01	4,58E-02	1,87E+00
	Used as raw materials	MJ, net calorofic value	3,97E-01	2,22E-04	9,89E-04	3,99E-01
	Total	MJ, net calorofic value	2,04E+00	1,79E-01	4,68E-02	2,26E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	7,49E-03	3,47E-04	1,10E-04	7,94E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,90E-06	8,20E-11	1,74E-09	1,90E-06
Non-hazardous waste disposed	kg	3,72E-04	6,07E-05	1,00E-02	1,05E-02
Radioactive waste disposed	kg	2,85E-05	2,27E-05	3,86E-07	5,15E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,57E-02	1,57E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

4. Libero Comfort 4 6319 & 8303 & 8198

3023 0023

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,242	0,043	0,077	0,361
	Biogenic	kg CO_2 eq.	-0,049	0,000	0,017	-0,032
	Land use and land transformation	kg CO_2 eq.	0,00016	0,00004	0,00014	0,00034
	Total	kg CO_2 eq.	0,193	0,043	0,094	0,330
Acidification potential (AP)		kg SO_2 eq.	9,72E-04	5,24E-05	5,02E-05	1,07E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	1,71E-04	7,12E-06	2,87E-05	2,06E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	7,54E-04	4,33E-05	3,16E-05	8,29E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	4,50E-07	3,87E-09	6,19E-10	4,54E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	5,95E+00	4,92E-01	1,78E-01	6,62E+00
Water scarcoty potential		m^3 eq.	7,37E+00	1,42E-02	1,23E-02	7,39E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,29E+00	9,52E-02	1,19E-02	1,39E+00
	Used as raw materials	MJ, net calorific value	5,28E-01	(N/A)	(N/A)	5,28E-01
	Total	MJ, net calorific value	1,81E+00	9,52E-02	1,19E-02	1,92E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	6,57E+00	7,14E-01	1,83E-01	7,46E+00
	Used as raw materials	MJ, net calorific value	1,59E+00	8,87E-04	3,96E-03	1,59E+00
	Total	MJ, net calorific value	8,16E+00	7,15E-01	1,87E-01	9,06E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	2,99E-02	1,39E-03	4,41E-04	3,18E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	7,60E-06	3,28E-10	6,97E-09	7,61E-06
Non-hazardous waste disposed	kg	1,49E-03	2,43E-04	4,01E-02	4,18E-02
Radioactive waste disposed	kg	1,14E-04	9,08E-05	1,54E-06	2,06E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	6,27E-02	6,27E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

5. Libero Comfort 5 5536 & 8305 & 8206

3023 0023

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,062	0,011	0,019	0,092
	Biogenic	kg CO_2 eq.	-0,012	0,000	0,004	-0,008
	Land use and land transformation	kg CO_2 eq.	0,00004	0,00001	0,00004	0,00009
	Total	kg CO_2 eq.	0,049	0,011	0,024	0,084
Acidification potential (AP)		kg SO_2 eq.	2,48E-04	1,33E-05	1,28E-05	2,74E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	4,33E-05	1,81E-06	7,28E-06	5,24E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,92E-04	1,10E-05	8,02E-06	2,11E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,16E-07	9,82E-10	1,65E-10	1,17E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,52E+00	1,25E-01	4,54E-02	1,69E+00
Water scarcity potential		m^3 eq.	1,86E+00	3,60E-03	3,15E-03	1,86E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	3,24E-01	2,42E-02	3,05E-03	3,51E-01
	Used as raw materials	MJ, net calorific value	1,32E-01	(N/A)	(N/A)	1,32E-01
	Total	MJ, net calorific value	4,56E-01	2,42E-02	3,05E-03	4,83E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	1,67E+00	1,82E-01	4,68E-02	1,90E+00
	Used as raw materials	MJ, net calorific value	3,99E-01	2,25E-04	9,93E-04	4,00E-01
	Total	MJ, net calorific value	2,07E+00	1,82E-01	4,78E-02	2,30E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	7,73E-03	3,53E-04	1,13E-04	8,19E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,92E-06	8,33E-11	1,79E-09	1,92E-06
Non-hazardous waste disposed	kg	3,80E-04	6,16E-05	1,03E-02	1,07E-02
Radioactive waste disposed	kg	2,93E-05	2,31E-05	3,94E-07	5,28E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,59E-02	1,59E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

5. Libero Comfort 5 5536 & 8305 & 8206

3023 0023

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,247	0,043	0,078	0,368
	Biogenic	kg CO_2 eq.	-0,049	0,000	0,017	-0,032
	Land use and land transformation	kg CO_2 eq.	0,00017	0,00004	0,00015	0,00035
	Total	kg CO_2 eq.	0,198	0,043	0,095	0,336
Acidification potential (AP)		kg SO_2 eq.	9,91E-04	5,33E-05	5,13E-05	1,10E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	1,73E-04	7,23E-06	2,91E-05	2,10E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	7,69E-04	4,40E-05	3,21E-05	8,45E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	4,65E-07	3,93E-09	6,59E-10	4,70E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorofic value	6,06E+00	5,00E-01	1,82E-01	6,74E+00
Water scarcoty potential		m^3 eq.	7,43E+00	1,44E-02	1,26E-02	7,45E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorofic value	1,29E+00	9,68E-02	1,22E-02	1,40E+00
	Used as raw materials	MJ, net calorofic value	5,28E-01	(N/A)	(N/A)	5,28E-01
	Total	MJ, net calorofic value	1,82E+00	9,68E-02	1,22E-02	1,93E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorofic value	6,69E+00	7,26E-01	1,87E-01	7,60E+00
	Used as raw materials	MJ, net calorofic value	1,60E+00	9,01E-04	3,97E-03	1,60E+00
	Total	MJ, net calorofic value	8,28E+00	7,27E-01	1,91E-01	9,20E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,09E-02	1,41E-03	4,50E-04	3,28E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	7,68E-06	3,33E-10	7,14E-09	7,69E-06
Non-hazardous waste disposed	kg	1,52E-03	2,47E-04	4,11E-02	4,28E-02
Radioactive waste disposed	kg	1,17E-04	9,22E-05	1,58E-06	2,11E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	6,37E-02	6,37E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

6. Libero Comfort 6 8208 & 8306

3023 0023

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,069	0,012	0,022	0,103
	Biogenic	kg CO_2 eq.	-0,015	0,000	0,005	-0,010
	Land use and land transformation	kg CO_2 eq.	0,00005	0,00001	0,00004	0,00010
	Total	kg CO_2 eq.	0,054	0,012	0,027	0,093
Acidification potential (AP)		kg SO_2 eq.	2,77E-04	1,50E-05	1,45E-05	3,06E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	4,91E-05	2,03E-06	8,37E-06	5,95E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	2,14E-04	1,23E-05	9,15E-06	2,36E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,27E-07	1,10E-09	1,84E-10	1,28E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,68E+00	1,40E-01	5,11E-02	1,88E+00
Water scarcity potential		m^3 eq.	2,12E+00	4,05E-03	3,49E-03	2,13E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	3,79E-01	2,72E-02	3,42E-03	4,10E-01
	Used as raw materials	MJ, net calorific value	1,57E-01	(N/A)	(N/A)	1,57E-01
	Total	MJ, net calorific value	5,36E-01	2,72E-02	3,42E-03	5,66E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	1,86E+00	2,04E-01	5,28E-02	2,12E+00
	Used as raw materials	MJ, net calorific value	4,49E-01	2,53E-04	1,18E-03	4,51E-01
	Total	MJ, net calorific value	2,31E+00	2,04E-01	5,39E-02	2,57E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	8,40E-03	3,96E-04	1,25E-04	8,92E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,12E-06	9,36E-11	2,02E-09	2,12E-06
Non-hazardous waste disposed	kg	4,22E-04	6,92E-05	1,13E-02	1,18E-02
Radioactive waste disposed	kg	3,21E-05	2,59E-05	4,39E-07	5,85E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,79E-02	1,79E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

6. Libero Comfort 6 8208 & 8306

3023 0023

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,275	0,049	0,088	0,411
	Biogenic	kg CO_2 eq.	-0,058	0,000	0,020	-0,038
	Land use and land transformation	kg CO_2 eq.	0,00019	0,00004	0,00017	0,00040
	Total	kg CO_2 eq.	0,217	0,049	0,108	0,374
Acidification potential (AP)		kg SO_2 eq.	1,11E-03	5,98E-05	5,78E-05	1,23E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	1,96E-04	8,12E-06	3,35E-05	2,38E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	8,58E-04	4,94E-05	3,66E-05	9,44E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	5,08E-07	4,41E-09	7,37E-10	5,13E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	6,73E+00	5,62E-01	2,05E-01	7,50E+00
Water scarcoty potential		m^3 eq.	8,50E+00	1,62E-02	1,40E-02	8,53E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,52E+00	1,09E-01	1,37E-02	1,64E+00
	Used as raw materials	MJ, net calorific value	6,26E-01	(N/A)	(N/A)	6,26E-01
	Total	MJ, net calorific value	2,14E+00	1,09E-01	1,37E-02	2,27E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	7,43E+00	8,15E-01	2,11E-01	8,46E+00
	Used as raw materials	MJ, net calorific value	1,80E+00	1,01E-03	4,71E-03	1,80E+00
	Total	MJ, net calorific value	9,23E+00	8,16E-01	2,16E-01	1,03E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,36E-02	1,58E-03	4,99E-04	3,57E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	8,47E-06	3,74E-10	8,09E-09	8,48E-06
Non-hazardous waste disposed	kg	1,69E-03	2,77E-04	4,51E-02	4,71E-02
Radioactive waste disposed	kg	1,29E-04	1,04E-04	1,75E-06	2,34E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	7,15E-02	7,15E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

7. Libero Comfort 7 8307 & 8210

3023 0023

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,078	0,014	0,025	0,117
	Biogenic	kg CO_2 eq.	-0,017	0,000	0,006	-0,011
	Land use and land transformation	kg CO_2 eq.	0,00005	0,00001	0,00005	0,00011
	Total	kg CO_2 eq.	0,061	0,014	0,031	0,106
Acidification potential (AP)		kg SO_2 eq.	3,18E-04	1,72E-05	1,67E-05	3,52E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	5,60E-05	2,34E-06	9,69E-06	6,80E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	2,47E-04	1,42E-05	1,06E-05	2,72E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,52E-07	1,27E-09	2,58E-10	1,54E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,91E+00	1,62E-01	5,90E-02	2,13E+00
Water scarcity potential		m^3 eq.	2,32E+00	4,66E-03	4,03E-03	2,33E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	4,38E-01	3,13E-02	3,95E-03	4,73E-01
	Used as raw materials	MJ, net calorific value	1,81E-01	(N/A)	(N/A)	1,81E-01
	Total	MJ, net calorific value	6,19E-01	3,13E-02	3,95E-03	6,54E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	2,10E+00	2,35E-01	6,09E-02	2,40E+00
	Used as raw materials	MJ, net calorific value	4,88E-01	2,91E-04	1,37E-03	4,90E-01
	Total	MJ, net calorific value	2,59E+00	2,35E-01	6,23E-02	2,89E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	9,93E-03	4,56E-04	1,44E-04	1,05E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,28E-06	1,08E-10	2,33E-09	2,28E-06
Non-hazardous waste disposed	kg	4,88E-04	7,97E-05	1,30E-02	1,36E-02
Radioactive waste disposed	kg	3,80E-05	2,98E-05	5,06E-07	6,83E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	2,06E-02	2,06E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

7. Libero Comfort 7 8307 & 8210

3023 0023

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,313	0,056	0,100	0,469
	Biogenic	kg CO_2 eq.	-0,068	0,000	0,024	-0,044
	Land use and land transformation	kg CO_2 eq.	0,00021	0,00005	0,00019	0,00045
	Total	kg CO_2 eq.	0,245	0,056	0,124	0,425
Acidification potential (AP)		kg SO_2 eq.	1,27E-03	6,89E-05	6,69E-05	1,41E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	2,24E-04	9,36E-06	3,88E-05	2,72E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	9,88E-04	5,69E-05	4,23E-05	1,09E-03
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	6,08E-07	5,08E-09	1,03E-09	6,14E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	7,62E+00	6,47E-01	2,36E-01	8,51E+00
Water scarcoty potential		m^3 eq.	9,30E+00	1,86E-02	1,61E-02	9,33E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,75E+00	1,25E-01	1,58E-02	1,89E+00
	Used as raw materials	MJ, net calorific value	7,25E-01	(N/A)	(N/A)	7,25E-01
	Total	MJ, net calorific value	2,48E+00	1,25E-01	1,58E-02	2,62E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	8,42E+00	9,39E-01	2,44E-01	9,60E+00
	Used as raw materials	MJ, net calorific value	1,95E+00	1,17E-03	5,48E-03	1,96E+00
	Total	MJ, net calorific value	1,04E+01	9,40E-01	2,49E-01	1,16E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,97E-02	1,83E-03	5,77E-04	4,21E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	9,12E-06	4,31E-10	9,34E-09	9,13E-06
Non-hazardous waste disposed	kg	1,95E-03	3,19E-04	5,20E-02	5,43E-02
Radioactive waste disposed	kg	1,52E-04	1,19E-04	2,03E-06	2,73E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	8,25E-02	8,25E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

8. Libero UP&GO 5 8225

3023 0038

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,070	0,013	0,024	0,107
	Biogenic	kg CO_2 eq.	-0,015	0,000	0,005	-0,010
	Land use and land transformation	kg CO_2 eq.	0,00004	0,00001	0,00004	0,00010
	Total	kg CO_2 eq.	0,055	0,013	0,030	0,097
Acidification potential (AP)		kg SO_2 eq.	2,96E-04	1,53E-05	1,53E-05	3,27E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	4,68E-05	2,08E-06	8,89E-06	5,78E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	2,25E-04	1,27E-05	9,73E-06	2,47E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,20E-07	1,13E-09	5,87E-11	1,21E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,75E+00	1,44E-01	5,42E-02	1,95E+00
Water scarcity potential		m^3 eq.	1,08E+00	4,15E-03	3,66E-03	1,09E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	4,08E-01	2,79E-02	3,62E-03	4,40E-01
	Used as raw materials	MJ, net calorific value	1,65E-01	(N/A)	(N/A)	1,65E-01
	Total	MJ, net calorific value	5,73E-01	2,79E-02	3,62E-03	6,04E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	1,89E+00	2,09E-01	5,59E-02	2,16E+00
	Used as raw materials	MJ, net calorific value	5,66E-01	2,59E-04	1,26E-03	5,67E-01
	Total	MJ, net calorific value	2,46E+00	2,09E-01	5,72E-02	2,73E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	7,87E-03	4,06E-04	1,31E-04	8,41E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,14E-06	9,60E-11	2,15E-09	2,14E-06
Non-hazardous waste disposed	kg	4,05E-04	7,10E-05	1,18E-02	1,23E-02
Radioactive waste disposed	kg	3,39E-05	2,66E-05	4,63E-07	6,09E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,85E-02	1,85E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

8. Libero UP&GO 5 8225

3023 0038

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,280	0,050	0,096	0,426
	Biogenic	kg CO_2 eq.	-0,061	0,000	0,022	-0,039
	Land use and land transformation	kg CO_2 eq.	0,00018	0,00004	0,00018	0,00040
	Total	kg CO_2 eq.	0,219	0,050	0,118	0,387
Acidification potential (AP)		kg SO_2 eq.	1,18E-03	6,13E-05	6,11E-05	1,31E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	1,87E-04	8,33E-06	3,56E-05	2,31E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	9,00E-04	5,07E-05	3,89E-05	9,89E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	4,80E-07	4,52E-09	2,35E-10	4,84E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	7,00E+00	5,76E-01	2,17E-01	7,79E+00
Water scarcoty potential		m^3 eq.	4,34E+00	1,66E-02	1,47E-02	4,37E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,63E+00	1,11E-01	1,45E-02	1,76E+00
	Used as raw materials	MJ, net calorific value	6,59E-01	(N/A)	(N/A)	6,59E-01
	Total	MJ, net calorific value	2,29E+00	1,11E-01	1,45E-02	2,42E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	7,57E+00	8,36E-01	2,24E-01	8,63E+00
	Used as raw materials	MJ, net calorific value	2,26E+00	1,04E-03	5,04E-03	2,27E+00
	Total	MJ, net calorific value	9,84E+00	8,37E-01	2,29E-01	1,09E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,15E-02	1,62E-03	5,24E-04	3,36E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	8,55E-06	3,84E-10	8,60E-09	8,56E-06
Non-hazardous waste disposed	kg	1,62E-03	2,84E-04	4,73E-02	4,92E-02
Radioactive waste disposed	kg	1,36E-04	1,06E-04	1,85E-06	2,44E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	7,41E-02	7,41E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

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one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,077	0,014	0,027	0,118
	Biogenic	kg CO_2 eq.	-0,018	0,000	0,006	-0,011
	Land use and land transformation	kg CO_2 eq.	0,00005	0,00001	0,00005	0,00011
	Total	kg CO_2 eq.	0,060	0,014	0,033	0,107
Acidification potential (AP)		kg SO_2 eq.	3,28E-04	1,69E-05	1,71E-05	3,62E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	5,27E-05	2,30E-06	1,01E-05	6,50E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	2,49E-04	1,40E-05	1,09E-05	2,74E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,31E-07	1,25E-09	6,78E-11	1,33E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,92E+00	1,59E-01	6,05E-02	2,14E+00
Water scarcity potential		m^3 eq.	1,21E+00	4,58E-03	4,02E-03	1,22E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	4,67E-01	3,08E-02	4,03E-03	5,02E-01
	Used as raw materials	MJ, net calorific value	1,90E-01	(N/A)	(N/A)	1,90E-01
	Total	MJ, net calorific value	6,56E-01	3,08E-02	4,03E-03	6,91E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	2,08E+00	2,31E-01	6,24E-02	2,37E+00
	Used as raw materials	MJ, net calorific value	6,25E-01	2,86E-04	1,46E-03	6,27E-01
	Total	MJ, net calorific value	2,70E+00	2,31E-01	6,39E-02	3,00E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	8,54E-03	4,49E-04	1,44E-04	9,13E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,30E-06	1,06E-10	2,42E-09	2,30E-06
Non-hazardous waste disposed	kg	4,41E-04	7,84E-05	1,29E-02	1,34E-02
Radioactive waste disposed	kg	3,72E-05	2,93E-05	5,11E-07	6,70E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	2,04E-02	2,04E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
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one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,309	0,055	0,107	0,471
	Biogenic	kg CO_2 eq.	-0,070	0,000	0,025	-0,045
	Land use and land transformation	kg CO_2 eq.	0,00020	0,00005	0,00020	0,00044
	Total	kg CO_2 eq.	0,239	0,055	0,132	0,426
Acidification potential (AP)		kg SO_2 eq.	1,31E-03	6,77E-05	6,82E-05	1,45E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	2,11E-04	9,20E-06	4,02E-05	2,60E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	9,94E-04	5,59E-05	4,38E-05	1,09E-03
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	5,25E-07	5,00E-09	2,71E-10	5,30E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	7,68E+00	6,36E-01	2,42E-01	8,56E+00
Water scarcoty potential		m^3 eq.	4,83E+00	1,83E-02	1,61E-02	4,87E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,87E+00	1,23E-01	1,61E-02	2,01E+00
	Used as raw materials	MJ, net calorific value	7,58E-01	(N/A)	(N/A)	7,58E-01
	Total	MJ, net calorific value	2,63E+00	1,23E-01	1,61E-02	2,77E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	8,32E+00	9,23E-01	2,50E-01	9,49E+00
	Used as raw materials	MJ, net calorific value	2,50E+00	1,15E-03	5,84E-03	2,51E+00
	Total	MJ, net calorific value	1,08E+01	9,25E-01	2,56E-01	1,20E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,41E-02	1,79E-03	5,76E-04	3,65E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	9,20E-06	4,24E-10	9,67E-09	9,21E-06
Non-hazardous waste disposed	kg	1,76E-03	3,14E-04	5,15E-02	5,36E-02
Radioactive waste disposed	kg	1,49E-04	1,17E-04	2,04E-06	2,68E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	8,18E-02	8,18E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

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one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,084	0,015	0,029	0,128
	Biogenic	kg CO_2 eq.	-0,018	0,000	0,007	-0,012
	Land use and land transformation	kg CO_2 eq.	0,00005	0,00001	0,00005	0,00012
	Total	kg CO_2 eq.	0,066	0,015	0,036	0,117
Acidification potential (AP)		kg SO_2 eq.	3,58E-04	1,84E-05	1,86E-05	3,95E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	5,71E-05	2,50E-06	1,08E-05	7,04E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	2,72E-04	1,52E-05	1,18E-05	2,99E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,48E-07	1,36E-09	9,09E-11	1,49E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	2,10E+00	1,73E-01	6,62E-02	2,33E+00
Water scarcity potential		m^3 eq.	1,31E+00	4,97E-03	4,41E-03	1,32E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	4,93E-01	3,34E-02	4,41E-03	5,31E-01
	Used as raw materials	MJ, net calorific value	1,98E-01	(N/A)	(N/A)	1,98E-01
	Total	MJ, net calorific value	6,91E-01	3,34E-02	4,41E-03	7,28E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	2,27E+00	2,51E-01	6,83E-02	2,59E+00
	Used as raw materials	MJ, net calorific value	6,69E-01	3,11E-04	1,53E-03	6,71E-01
	Total	MJ, net calorific value	2,94E+00	2,51E-01	6,98E-02	3,26E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	9,60E-03	4,87E-04	1,58E-04	1,02E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,46E-06	1,15E-10	2,64E-09	2,46E-06
Non-hazardous waste disposed	kg	4,83E-04	8,51E-05	1,42E-02	1,48E-02
Radioactive waste disposed	kg	4,13E-05	3,18E-05	5,59E-07	7,36E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	2,22E-02	2,22E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
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one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,337	0,060	0,115	0,512
	Biogenic	kg CO_2 eq.	-0,073	0,000	0,027	-0,047
	Land use and land transformation	kg CO_2 eq.	0,00021	0,00005	0,00022	0,00048
	Total	kg CO_2 eq.	0,264	0,060	0,142	0,466
Acidification potential (AP)		kg SO_2 eq.	1,43E-03	7,35E-05	7,44E-05	1,58E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	2,28E-04	9,99E-06	4,32E-05	2,82E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,09E-03	6,07E-05	4,72E-05	1,19E-03
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	5,92E-07	5,42E-09	3,64E-10	5,98E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	8,38E+00	6,91E-01	2,65E-01	9,34E+00
Water scarcoty potential		m^3 eq.	5,24E+00	1,99E-02	1,76E-02	5,28E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,97E+00	1,34E-01	1,76E-02	2,12E+00
	Used as raw materials	MJ, net calorific value	7,91E-01	(N/A)	(N/A)	7,91E-01
	Total	MJ, net calorific value	2,76E+00	1,34E-01	1,76E-02	2,91E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	9,08E+00	1,00E+00	2,73E-01	1,04E+01
	Used as raw materials	MJ, net calorific value	2,68E+00	1,24E-03	6,13E-03	2,68E+00
	Total	MJ, net calorific value	1,18E+01	1,00E+00	2,79E-01	1,30E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,84E-02	1,95E-03	6,32E-04	4,10E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	9,83E-06	4,60E-10	1,06E-08	9,84E-06
Non-hazardous waste disposed	kg	1,93E-03	3,40E-04	5,68E-02	5,91E-02
Radioactive waste disposed	kg	1,65E-04	1,27E-04	2,23E-06	2,95E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	8,87E-02	8,87E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
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POCP - Photochemical Ozon Creation Potential

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one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,091	0,016	0,031	0,139
	Biogenic	kg CO_2 eq.	-0,020	0,000	0,007	-0,013
	Land use and land transformation	kg CO_2 eq.	0,00006	0,00001	0,00006	0,00013
	Total	kg CO_2 eq.	0,072	0,016	0,038	0,126
Acidification potential (AP)		kg SO_2 eq.	3,90E-04	2,01E-05	2,05E-05	4,30E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	6,20E-05	2,73E-06	1,18E-05	7,65E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	2,98E-04	1,66E-05	1,29E-05	3,27E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,72E-07	1,48E-09	1,57E-10	1,74E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	2,26E+00	1,89E-01	7,28E-02	2,52E+00
Water scarcity potential		m^3 eq.	1,41E+00	5,43E-03	4,85E-03	1,42E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	5,33E-01	3,65E-02	4,85E-03	5,75E-01
	Used as raw materials	MJ, net calorific value	2,14E-01	(N/A)	(N/A)	2,14E-01
	Total	MJ, net calorific value	7,48E-01	3,65E-02	4,85E-03	7,89E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	2,45E+00	2,74E-01	7,51E-02	2,80E+00
	Used as raw materials	MJ, net calorific value	6,77E-01	3,40E-04	1,67E-03	6,79E-01
	Total	MJ, net calorific value	3,13E+00	2,74E-01	7,68E-02	3,48E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	1,11E-02	5,32E-04	1,74E-04	1,18E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,57E-06	1,26E-10	2,91E-09	2,57E-06
Non-hazardous waste disposed	kg	5,41E-04	9,29E-05	1,56E-02	1,62E-02
Radioactive waste disposed	kg	4,65E-05	3,48E-05	6,13E-07	8,18E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	2,42E-02	2,42E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
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one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,365	0,065	0,124	0,555
	Biogenic	kg CO_2 eq.	-0,079	0,000	0,029	-0,050
	Land use and land transformation	kg CO_2 eq.	0,00023	0,00006	0,00024	0,00052
	Total	kg CO_2 eq.	0,287	0,066	0,153	0,505
Acidification potential (AP)		kg SO_2 eq.	1,56E-03	8,03E-05	8,18E-05	1,72E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	2,48E-04	1,09E-05	4,72E-05	3,06E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,19E-03	6,63E-05	5,16E-05	1,31E-03
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	6,89E-07	5,92E-09	6,30E-10	6,95E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	9,03E+00	7,54E-01	2,91E-01	1,01E+01
Water scarcoty potential		m^3 eq.	5,63E+00	2,17E-02	1,94E-02	5,67E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	2,13E+00	1,46E-01	1,94E-02	2,30E+00
	Used as raw materials	MJ, net calorific value	8,57E-01	(N/A)	(N/A)	8,57E-01
	Total	MJ, net calorific value	2,99E+00	1,46E-01	1,94E-02	3,16E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	9,80E+00	1,09E+00	3,00E-01	1,12E+01
	Used as raw materials	MJ, net calorific value	2,71E+00	1,36E-03	6,68E-03	2,72E+00
	Total	MJ, net calorific value	1,25E+01	1,10E+00	3,07E-01	1,39E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	4,42E-02	2,13E-03	6,94E-04	4,70E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,03E-05	5,03E-10	1,16E-08	1,03E-05
Non-hazardous waste disposed	kg	2,16E-03	3,72E-04	6,24E-02	6,49E-02
Radioactive waste disposed	kg	1,86E-04	1,39E-04	2,45E-06	3,27E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	9,70E-02	9,70E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

12. Libero Touch Premature 7976

3023 0038

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,029	0,005	0,009	0,043
	Biogenic	kg CO_2 eq.	-0,005	0,000	0,002	-0,003
	Land use and land transformation	kg CO_2 eq.	0,00002	0,00000	0,00002	0,00004
	Total	kg CO_2 eq.	0,025	0,005	0,011	0,040
Acidification potential (AP)		kg SO_2 eq.	1,14E-04	5,69E-06	5,72E-06	1,25E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	2,18E-05	7,72E-07	3,11E-06	2,57E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	8,39E-05	4,70E-06	3,48E-06	9,21E-05
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	3,99E-08	4,19E-10	2,25E-12	4,04E-08
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	7,41E-01	5,34E-02	2,07E-02	8,15E-01
Water scarcity potential		m^3 eq.	1,08E+00	1,54E-03	1,37E-03	1,09E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,34E-01	1,03E-02	1,38E-03	1,46E-01
	Used as raw materials	MJ, net calorific value	4,95E-02	(N/A)	(N/A)	4,95E-02
	Total	MJ, net calorific value	1,83E-01	1,03E-02	1,38E-03	1,95E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	8,18E-01	7,75E-02	2,13E-02	9,17E-01
	Used as raw materials	MJ, net calorific value	2,62E-01	9,62E-05	4,01E-04	2,62E-01
	Total	MJ, net calorific value	1,08E+00	7,76E-02	2,17E-02	1,18E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	2,95E-03	1,51E-04	4,93E-05	3,15E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,25E-06	3,56E-11	8,30E-10	1,26E-06
Non-hazardous waste disposed	kg	1,23E-04	2,63E-05	4,51E-03	4,66E-03
Radioactive waste disposed	kg	1,11E-05	9,84E-06	1,73E-07	2,11E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	6,77E-03	6,77E-03
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

12. Libero Touch Premature 7976

3023 0038

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,117	0,019	0,037	0,172
	Biogenic	kg CO_2 eq.	-0,018	0,000	0,007	-0,011
	Land use and land transformation	kg CO_2 eq.	0,00008	0,00002	0,00007	0,00016
	Total	kg CO_2 eq.	0,098	0,019	0,044	0,161
Acidification potential (AP)		kg SO_2 eq.	4,56E-04	2,27E-05	2,29E-05	5,01E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	8,73E-05	3,09E-06	1,24E-05	1,03E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	3,36E-04	1,88E-05	1,39E-05	3,68E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,60E-07	1,68E-09	9,01E-12	1,61E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorofic value	2,96E+00	2,14E-01	8,29E-02	3,26E+00
Water scarcoty potential		m^3 eq.	4,34E+00	6,15E-03	5,50E-03	4,35E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorofic value	5,36E-01	4,13E-02	5,52E-03	5,83E-01
	Used as raw materials	MJ, net calorofic value	1,98E-01	(N/A)	(N/A)	1,98E-01
	Total	MJ, net calorofic value	7,34E-01	4,13E-02	5,52E-03	7,81E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorofic value	3,27E+00	3,10E-01	8,53E-02	3,67E+00
	Used as raw materials	MJ, net calorofic value	1,05E+00	3,85E-04	1,60E-03	1,05E+00
	Total	MJ, net calorofic value	4,32E+00	3,10E-01	8,69E-02	4,71E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	1,18E-02	6,02E-04	1,97E-04	1,26E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	5,02E-06	1,42E-10	3,32E-09	5,02E-06
Non-hazardous waste disposed	kg	4,92E-04	1,05E-04	1,81E-02	1,87E-02
Radioactive waste disposed	kg	4,44E-05	3,94E-05	6,92E-07	8,45E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	2,71E-02	2,71E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

13. Libero Sleep Tight 9 8384 & 8385 & 8685

5023 0001

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,098	0,017	0,030	0,144
	Biogenic	kg CO_2 eq.	-0,025	0,000	0,009	-0,016
	Land use and land transformation	kg CO_2 eq.	0,00006	0,00001	0,00006	0,00014
	Total	kg CO_2 eq.	0,073	0,017	0,038	0,128
Acidification potential (AP)		kg SO_2 eq.	4,20E-04	2,03E-05	2,03E-05	4,61E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	7,25E-05	2,75E-06	1,26E-05	8,78E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	3,33E-04	1,67E-05	1,37E-05	3,63E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,94E-07	1,49E-09	-9,81E-10	1,95E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	2,26E+00	1,90E-01	6,98E-02	2,52E+00
Water scarcity potential		m^3 eq.	1,70E+00	5,48E-03	4,56E-03	1,71E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	6,16E-01	3,68E-02	4,53E-03	6,57E-01
	Used as raw materials	MJ, net calorific value	2,64E-01	(N/A)	(N/A)	2,64E-01
	Total	MJ, net calorific value	8,79E-01	3,68E-02	4,53E-03	9,21E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	2,46E+00	2,76E-01	7,22E-02	2,81E+00
	Used as raw materials	MJ, net calorific value	4,76E-01	3,43E-04	1,98E-03	4,79E-01
	Total	MJ, net calorific value	2,94E+00	2,77E-01	7,42E-02	3,29E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	1,31E-02	5,37E-04	1,63E-04	1,38E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	4,95E-06	1,27E-10	2,78E-09	4,96E-06
Non-hazardous waste disposed	kg	6,08E-04	9,38E-05	1,43E-02	1,50E-02
Radioactive waste disposed	kg	4,37E-05	3,51E-05	5,97E-07	7,94E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	2,45E-02	2,45E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

13. Libero Sleep Tight 9 8384 & 8385 & 8685

5023 0001

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,391	0,066	0,118	0,575
	Biogenic	kg CO_2 eq.	-0,099	0,000	0,034	-0,065
	Land use and land transformation	kg CO_2 eq.	0,00026	0,00006	0,00023	0,00054
	Total	kg CO_2 eq.	0,292	0,066	0,153	0,510
Acidification potential (AP)		kg SO_2 eq.	1,68E-03	8,11E-05	8,13E-05	1,84E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	2,90E-04	1,10E-05	5,05E-05	3,51E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,33E-03	6,69E-05	5,49E-05	1,45E-03
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	7,76E-07	5,98E-09	-3,92E-09	7,78E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	9,06E+00	7,62E-01	2,79E-01	1,01E+01
Water scarcoty potential		m^3 eq.	6,82E+00	2,19E-02	1,82E-02	6,86E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	2,46E+00	1,47E-01	1,81E-02	2,63E+00
	Used as raw materials	MJ, net calorific value	1,06E+00	(N/A)	(N/A)	1,06E+00
	Total	MJ, net calorific value	3,52E+00	1,47E-01	1,81E-02	3,68E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	9,85E+00	1,10E+00	2,89E-01	1,12E+01
	Used as raw materials	MJ, net calorific value	1,91E+00	1,37E-03	7,92E-03	1,91E+00
	Total	MJ, net calorific value	1,18E+01	1,11E+00	2,97E-01	1,32E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	5,23E-02	2,15E-03	6,51E-04	5,51E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,98E-05	5,07E-10	1,11E-08	1,98E-05
Non-hazardous waste disposed	kg	2,43E-03	3,75E-04	5,74E-02	6,02E-02
Radioactive waste disposed	kg	1,75E-04	1,40E-04	2,39E-06	3,18E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	9,80E-02	9,80E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

14. Libero Sleep Tight 10 8386 & 8387 & 8387

5023 0001

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,114	0,019	0,034	0,167
	Biogenic	kg CO_2 eq.	-0,030	0,000	0,010	-0,019
	Land use and land transformation	kg CO_2 eq.	0,00007	0,00002	0,00006	0,00015
	Total	kg CO_2 eq.	0,084	0,019	0,044	0,148
Acidification potential (AP)		kg SO_2 eq.	4,92E-04	2,36E-05	2,32E-05	5,39E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	8,53E-05	3,21E-06	1,47E-05	1,03E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	3,91E-04	1,95E-05	1,60E-05	4,26E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	2,30E-07	1,74E-09	-1,27E-09	2,31E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	2,63E+00	2,22E-01	7,89E-02	2,93E+00
Water scarcity potential		m^3 eq.	1,99E+00	6,38E-03	5,28E-03	2,00E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	7,23E-01	4,29E-02	5,12E-03	7,71E-01
	Used as raw materials	MJ, net calorific value	3,13E-01	(N/A)	(N/A)	3,13E-01
	Total	MJ, net calorific value	1,04E+00	4,29E-02	5,12E-03	1,08E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	2,86E+00	3,22E-01	8,17E-02	3,26E+00
	Used as raw materials	MJ, net calorific value	5,31E-01	3,99E-04	2,34E-03	5,34E-01
	Total	MJ, net calorific value	3,39E+00	3,22E-01	8,41E-02	3,80E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	1,56E-02	6,25E-04	1,88E-04	1,64E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	6,11E-06	1,48E-10	3,11E-09	6,11E-06
Non-hazardous waste disposed	kg	7,05E-04	1,09E-04	1,66E-02	1,74E-02
Radioactive waste disposed	kg	5,07E-05	4,09E-05	6,91E-07	9,23E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	2,85E-02	2,85E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

14. Libero Sleep Tight 10 8386 & 8387 & 8387

5023 0001

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,455	0,077	0,136	0,668
	Biogenic	kg CO_2 eq.	-0,118	0,000	0,041	-0,078
	Land use and land transformation	kg CO_2 eq.	0,00029	0,00007	0,00026	0,00062
	Total	kg CO_2 eq.	0,337	0,077	0,177	0,591
Acidification potential (AP)		kg SO_2 eq.	1,97E-03	9,44E-05	9,30E-05	2,16E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	3,41E-04	1,28E-05	5,89E-05	4,13E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,56E-03	7,80E-05	6,39E-05	1,71E-03
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	9,20E-07	6,96E-09	-5,08E-09	9,22E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorofic value	1,05E+01	8,87E-01	3,16E-01	1,17E+01
Water scarcoty potential		m^3 eq.	7,96E+00	2,55E-02	2,11E-02	8,01E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorofic value	2,89E+00	1,71E-01	2,05E-02	3,09E+00
	Used as raw materials	MJ, net calorofic value	1,25E+00	(N/A)	(N/A)	1,25E+00
	Total	MJ, net calorofic value	4,15E+00	1,71E-01	2,05E-02	4,34E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorofic value	1,14E+01	1,29E+00	3,27E-01	1,30E+01
	Used as raw materials	MJ, net calorofic value	2,13E+00	1,60E-03	9,37E-03	2,14E+00
	Total	MJ, net calorofic value	1,36E+01	1,29E+00	3,36E-01	1,52E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	6,24E-02	2,50E-03	7,53E-04	6,56E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,44E-05	5,91E-10	1,24E-08	2,44E-05
Non-hazardous waste disposed	kg	2,82E-03	4,37E-04	6,63E-02	6,96E-02
Radioactive waste disposed	kg	2,03E-04	1,63E-04	2,76E-06	3,69E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,14E-01	1,14E-01
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

15. Dry Kids Maxi 5358

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,062	0,010	0,018	0,090
	Biogenic	kg CO_2 eq.	-0,006	0,000	0,002	-0,004
	Land use and land transformation	kg CO_2 eq.	0,00004	0,00001	0,00003	0,00008
	Total	kg CO_2 eq.	0,056	0,010	0,020	0,087
Acidification potential (AP)		kg SO_2 eq.	2,35E-04	1,23E-05	1,17E-05	2,59E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	3,92E-05	1,66E-06	5,58E-06	4,65E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	1,85E-04	1,01E-05	6,57E-06	2,01E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,18E-07	9,04E-10	1,68E-10	1,20E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorofic value	1,56E+00	1,15E-01	4,28E-02	1,72E+00
Water scarcity potential		m^3 eq.	1,74E+00	3,32E-03	3,15E-03	1,75E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorofic value	2,05E-01	2,23E-02	2,91E-03	2,30E-01
	Used as raw materials	MJ, net calorofic value	6,59E-02	(N/A)	(N/A)	6,59E-02
	Total	MJ, net calorofic value	2,71E-01	2,23E-02	2,91E-03	2,96E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorofic value	1,72E+00	1,67E-01	4,40E-02	1,93E+00
	Used as raw materials	MJ, net calorofic value	4,10E-01	2,07E-04	5,24E-04	4,11E-01
	Total	MJ, net calorofic value	2,13E+00	1,67E-01	4,46E-02	2,34E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	8,08E-03	3,25E-04	1,13E-04	8,51E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	1,79E-06	7,67E-11	1,65E-09	1,79E-06
Non-hazardous waste disposed	kg	3,74E-04	5,67E-05	1,09E-02	1,13E-02
Radioactive waste disposed	kg	3,05E-05	2,12E-05	3,83E-07	5,21E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,46E-02	1,46E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

15. Dry Kids Maxi 5358

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,248	0,040	0,072	0,361
	Biogenic	kg CO_2 eq.	-0,023	0,000	0,009	-0,014
	Land use and land transformation	kg CO_2 eq.	0,00016	0,00003	0,00014	0,00033
	Total	kg CO_2 eq.	0,225	0,040	0,082	0,347
Acidification potential (AP)		kg SO_2 eq.	9,40E-04	4,90E-05	4,69E-05	1,04E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	1,57E-04	6,66E-06	2,23E-05	1,86E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	7,39E-04	4,05E-05	2,63E-05	8,05E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	4,74E-07	3,62E-09	6,72E-10	4,78E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorofic value	6,23E+00	4,61E-01	1,71E-01	6,87E+00
Water scarcoty potential		m^3 eq.	6,97E+00	1,33E-02	1,26E-02	7,00E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorofic value	8,21E-01	8,91E-02	1,16E-02	9,22E-01
	Used as raw materials	MJ, net calorofic value	2,64E-01	(N/A)	(N/A)	2,64E-01
	Total	MJ, net calorofic value	1,08E+00	8,91E-02	1,16E-02	1,19E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorofic value	6,86E+00	6,68E-01	1,76E-01	7,71E+00
	Used as raw materials	MJ, net calorofic value	1,64E+00	8,29E-04	2,10E-03	1,64E+00
	Total	MJ, net calorofic value	8,50E+00	6,69E-01	1,78E-01	9,35E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorofic value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,23E-02	1,30E-03	4,50E-04	3,41E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	7,15E-06	3,07E-10	6,59E-09	7,16E-06
Non-hazardous waste disposed	kg	1,50E-03	2,27E-04	4,35E-02	4,52E-02
Radioactive waste disposed	kg	1,22E-04	8,49E-05	1,53E-06	2,08E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	5,85E-02	5,85E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

16. Dry Kids XL 5369

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,071	0,012	0,021	0,103
	Biogenic	kg CO_2 eq.	-0,007	0,000	0,003	-0,004
	Land use and land transformation	kg CO_2 eq.	0,00005	0,00001	0,00004	0,00009
	Total	kg CO_2 eq.	0,064	0,012	0,023	0,099
Acidification potential (AP)		kg SO_2 eq.	2,70E-04	1,41E-05	1,36E-05	2,97E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	4,51E-05	1,92E-06	6,49E-06	5,35E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	2,12E-04	1,17E-05	7,62E-06	2,31E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,37E-07	1,04E-09	1,89E-10	1,38E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,78E+00	1,33E-01	4,94E-02	1,96E+00
Water scarcity potential		m^3 eq.	2,02E+00	3,82E-03	3,62E-03	2,03E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	2,40E-01	2,57E-02	3,35E-03	2,69E-01
	Used as raw materials	MJ, net calorific value	7,91E-02	(N/A)	(N/A)	7,91E-02
	Total	MJ, net calorific value	3,20E-01	2,57E-02	3,35E-03	3,49E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	1,96E+00	1,93E-01	5,08E-02	2,20E+00
	Used as raw materials	MJ, net calorific value	4,64E-01	2,39E-04	6,23E-04	4,65E-01
	Total	MJ, net calorific value	2,42E+00	1,93E-01	5,14E-02	2,67E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	9,29E-03	3,74E-04	1,29E-04	9,79E-03

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,01E-06	8,84E-11	1,91E-09	2,01E-06
Non-hazardous waste disposed	kg	4,30E-04	6,54E-05	1,24E-02	1,29E-02
Radioactive waste disposed	kg	3,50E-05	2,45E-05	4,40E-07	5,99E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,69E-02	1,69E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

16. Dry Kids XL 5369

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,284	0,046	0,083	0,413
	Biogenic	kg CO_2 eq.	-0,028	0,000	0,011	-0,017
	Land use and land transformation	kg CO_2 eq.	0,00018	0,00004	0,00016	0,00038
	Total	kg CO_2 eq.	0,256	0,046	0,094	0,396
Acidification potential (AP)		kg SO_2 eq.	1,08E-03	5,65E-05	5,42E-05	1,19E-03
Eutrophication potential (EP)		kg PO_4^3 eq.	1,80E-04	7,67E-06	2,59E-05	2,14E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	8,48E-04	4,67E-05	3,05E-05	9,25E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	5,48E-07	4,17E-09	7,57E-10	5,53E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	7,12E+00	5,31E-01	1,98E-01	7,84E+00
Water scarcoty potential		m^3 eq.	8,07E+00	1,53E-02	1,45E-02	8,10E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	9,62E-01	1,03E-01	1,34E-02	1,08E+00
	Used as raw materials	MJ, net calorific value	3,17E-01	(N/A)	(N/A)	3,17E-01
	Total	MJ, net calorific value	1,28E+00	1,03E-01	1,34E-02	1,39E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	7,84E+00	7,70E-01	2,03E-01	8,81E+00
	Used as raw materials	MJ, net calorific value	1,86E+00	9,56E-04	2,49E-03	1,86E+00
	Total	MJ, net calorific value	9,69E+00	7,71E-01	2,06E-01	1,07E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	3,72E-02	1,50E-03	5,17E-04	3,92E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	8,04E-06	3,54E-10	7,63E-09	8,05E-06
Non-hazardous waste disposed	kg	1,72E-03	2,62E-04	4,97E-02	5,17E-02
Radioactive waste disposed	kg	1,40E-04	9,78E-05	1,76E-06	2,40E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	6,74E-02	6,74E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

17. Dry Kids XL+ 5619

one absorbent product

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,079	0,013	0,023	0,115
	Biogenic	kg CO_2 eq.	-0,008	0,000	0,003	-0,005
	Land use and land transformation	kg CO_2 eq.	0,00005	0,00001	0,00004	0,00011
	Total	kg CO_2 eq.	0,071	0,013	0,026	0,110
Acidification potential (AP)		kg SO_2 eq.	3,02E-04	1,58E-05	1,53E-05	3,33E-04
Eutrophication potential (EP)		kg PO_4^3 eq.	5,06E-05	2,14E-06	7,38E-06	6,01E-05
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	2,37E-04	1,30E-05	8,62E-06	2,59E-04
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	1,56E-07	1,16E-09	2,27E-10	1,58E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	1,97E+00	1,48E-01	5,56E-02	2,18E+00
Water scarcity potential		m^3 eq.	2,19E+00	4,27E-03	4,05E-03	2,19E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	2,75E-01	2,87E-02	3,77E-03	3,08E-01
	Used as raw materials	MJ, net calorific value	9,07E-02	(N/A)	(N/A)	9,07E-02
	Total	MJ, net calorific value	3,66E-01	2,87E-02	3,77E-03	3,98E-01
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	2,17E+00	2,15E-01	5,72E-02	2,44E+00
	Used as raw materials	MJ, net calorific value	5,02E-01	2,67E-04	7,30E-04	5,03E-01
	Total	MJ, net calorific value	2,67E+00	2,15E-01	5,79E-02	2,95E+00
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	1,06E-02	4,18E-04	1,45E-04	1,11E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	2,33E-06	9,88E-11	2,15E-09	2,33E-06
Non-hazardous waste disposed	kg	4,80E-04	7,31E-05	1,39E-02	1,44E-02
Radioactive waste disposed	kg	3,97E-05	2,73E-05	4,93E-07	6,75E-05
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	1,89E-02	1,89E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

17. Dry Kids XL+ 5619

one day of absorbent product use

Environmental impact category

Parameter		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0,316	0,051	0,093	0,460
	Biogenic	kg CO_2 eq.	-0,032	0,000	0,013	-0,019
	Land use and land transformation	kg CO_2 eq.	0,00020	0,00004	0,00018	0,00042
	Total	kg CO_2 eq.	0,284	0,052	0,105	0,441
Acidification potential (AP)		kg SO_2 eq.	1,21E-03	6,31E-05	6,11E-05	1,33E-03
Eutrophication potential (EP)		kg PO_4^{3} eq.	2,02E-04	8,58E-06	2,95E-05	2,40E-04
Formation potential of tropospheric ozone (POCP)		kg NMVOC eq.	9,48E-04	5,21E-05	3,45E-05	1,03E-03
Abiotic depletion potential - Elements (ADP-elements)		kg Sb eq.	6,25E-07	4,66E-09	9,10E-10	6,30E-07
Abiotic depletion potential - Fossil fuels (ADP-fossil fuels)		MJ, net calorific value	7,89E+00	5,93E-01	2,23E-01	8,70E+00
Water scarcoty potential		m^3 eq.	8,74E+00	1,71E-02	1,62E-02	8,78E+00
Land use and land use change (LUC)		m^2 per year	(N/A)	(N/A)	(N/A)	(N/A)

Resources

Parameter		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Used as energy carrier	MJ, net calorific value	1,10E+00	1,15E-01	1,51E-02	1,23E+00
	Used as raw materials	MJ, net calorific value	3,63E-01	(N/A)	(N/A)	3,63E-01
	Total	MJ, net calorific value	1,46E+00	1,15E-01	1,51E-02	1,59E+00
Primary energy resources - Non-renewable	Used as energy carrier	MJ, net calorific value	8,69E+00	8,61E-01	2,29E-01	9,78E+00
	Used as raw materials	MJ, net calorific value	2,01E+00	1,07E-03	2,92E-03	2,01E+00
	Total	MJ, net calorific value	1,07E+01	8,62E-01	2,32E-01	1,18E+01
Secondary material		kg	(N/A)	(N/A)	(N/A)	(N/A)
Renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Non-renewable secondary fuels		MJ, net calorific value	(N/A)	(N/A)	(N/A)	(N/A)
Net use of fresh water		m^3	4,23E-02	1,67E-03	5,78E-04	4,46E-02

Waste and output flows

Parameter	Unit	Upstream	Core	Downstream	Total
Hazardous waste disposed	kg	9,32E-06	3,95E-10	8,61E-09	9,33E-06
Non-hazardous waste disposed	kg	1,92E-03	2,92E-04	5,54E-02	5,76E-02
Radioactive waste disposed	kg	1,59E-04	1,09E-04	1,97E-06	2,70E-04
Components for reuse	kg	(N/A)	(N/A)	(N/A)	(N/A)
Material for recycling	kg	(N/A)	(N/A)	(N/A)	(N/A)
Materials for energy recovery	kg	0,00	0,00	7,54E-02	7,54E-02
Exported energy, electricity	MJ	(N/A)	(N/A)	(N/A)	(N/A)
Exported energy, thermal	MJ	(N/A)	(N/A)	(N/A)	(N/A)

GWP - Global Warming Potential
AP - Acidification Potential
EP - Eutrophication Potential
POCP - Photochemical Ozon Creation Potential

References

1. PCR 2011:14 v. 3.01
2. General Programme Instructions for the International EPD® System v. 3.01
3. ISO 14040:2006 Environmental management – Life cycle assessment – Principles and framework
4. ISO 14044:2006 Environmental management – Life cycle assessment – Requirements and guidelines
5. ISO 14025:2006 Environmental labels and declarations – Type III environmental declarations – Principles and procedures
6. ISO 14020:2000 Environmental labels and declarations – General principles
7. DPCM 12/01/17 – G.U. n. 65 del 18 marzo 2017
8. www.environdec.com

Version	Revision item
4	
5	New articles added (no new LCA calculations): Libero Comfort 3, art.no. 8190 Libero Comfort 4, art.no. 8198 Libero Comfort 5, art.no. 8206 Libero Comfort 6, art.no. 8208 Libero Comfort 7, art.no. 8210 Libero Sleep Tight 9, art.no. 8685 Libero Sleep Tight 10, art.no. 8387 Articles removed: Libero Comfort 6, art.no. 6324

Making a better mark – for people, and for the planet

We create value for customers and consumers by increasing health and hygiene standards through our innovative solutions, and by sharing knowledge and promoting awareness.

We create business value by meeting societal needs and offering more people an opportunity to work, in better conditions, so they can provide for their families and live happier, fuller lives.

Since 2008 we've also been taking steps to make every TENA product more sustainable. For example, by converting to 100% renewable electricity in all our factories. Our goal is to reduce the carbon footprint of our products and services by 50 % by 2030.

Step by step, to leave a better mark on the planet.