

# Multimastic SP

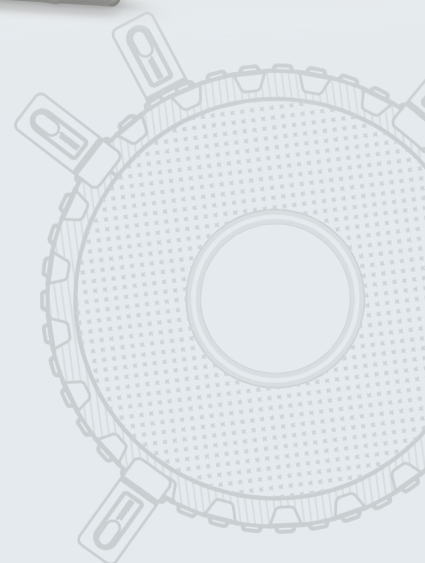
## Environmental Product Declaration



According to EN15804+A2 (+indicators A1) and ISO14025

Program operator	Stichting MRPI®
Publisher	Stichting MRPI® <a href="http://www.mrpi.nl">www.mrpi.nl</a>
MRPI® registration	11.00588.2024
Date of first issue	12-7-2024
Date of this issue	12-7-2024
Expiry date	12-7-2029

**MULCOL**  
FIRE PROTECTION





**Mulcol International is a modern developer of innovative passive fire stopping products. Our fundamental objective is to develop and test pragmatic, effective and user-friendly products and solutions that comply with the applicable European standards.**

## About Mulcol

### **Pragmatic, effective and user-friendly solutions**

Mulcol International continuously researches, develops and tests practical solutions and products in order to offer our customers the best passive fire stopping products. Our aim is to develop innovative fire stopping products and solutions that are relevant and easy to use. Instead of testing theoretical solutions, we believe that we should gauge whether our tested products can be used in practice and reflect real situations.

### **Care for man and the environment**

We feel responsible for the environment and the safety of today's and future generations. We protect life and as such we are always looking for ways to create environmentally-friendly and effective solutions that are fully aimed at saving lives.

### **Excellent (in) quality**

Mulcol International has only one goal and that is to offer products of an excellent quality, designed for our safety. We want to be market leaders in the best performing passive fire protection products.

In addition, quality and safety are also reflected in our working methods in product development, the use of our products and the service we provide to our customers. Our quality management system underlines this commitment to comply with the latest quality standards. We continuously improve and optimise our product development processes, internal processes and customer service. We are focused on enhancing and expanding the performances and characteristics of the existing range of passive fire protection products and systems.

### **It's in the genes of our people**

Mulcol International is a committed organisation of people who have the knowledge, skills, commitment and dedication to develop new and sophisticated passive fire protection products. Our employees are our biggest asset and we're proud of them. All our employees are points of reference within our field of expertise. From the choice of material to development and supply, our people aim for the highest possible level in the field of passive fire protection.

## Company information

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## MRPI® registration

11.00588.2024

## Date of issue

12-7-2024

## Expiry date

12-7-2029

## Scope of declaration

The MRPI-EPD certificate, which forms the basis of this document, is verified by Anne Kees Jeeninga, Advieslab VOF. The LCA study has been done by Martijn Blaak, EcoReview. The certificate is based on an LCA-dossier according to EN15804+A2 (+indicators A1). It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPD's of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate list of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

## Visual product

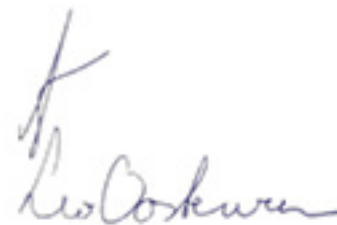


## More information

<https://www.mulcol.com/en/products/multimastic-sp-koker-310ml>

## Program operator

Stichting MRPI®  
Kingsfordweg 151  
1043 GR Amsterdam  
[www.mrpi.nl](http://www.mrpi.nl)



Ing. L. L. Oosterveen MSc. MBA  
Managing Director MRPI

## Product


Multimastic SP

## Declared unit/functional unit

kg

## Description of product

Multimastic SP is an acrylic-based fire stopping mastic for fire-resistant sealing

DEMONSTRATION OF VERIFICATION
CEN standard EN15804 serves as the core PCR(a)
Independent verification of the declaration and data according to EN15804+A2 (+indicators A1) internal: external: x
Third party verifier: Anne Kees Jeeninga, Advieslab VOF 
[a]PCR = Product Category Rules

## Detailed product description

Multimastic SP is an acrylic-based fire stopping mastic for the fire-resistant sealing of openings around cable trays, pipe and cable penetrations and for glueing Multimastic FB1/FB2 fire stopping boards (together). Multimastic SP expands when exposed to heat and creates a fire-resistant and smoke-proof seal to adjacent rooms. The reference service life of Multimastic SP is 30 years.

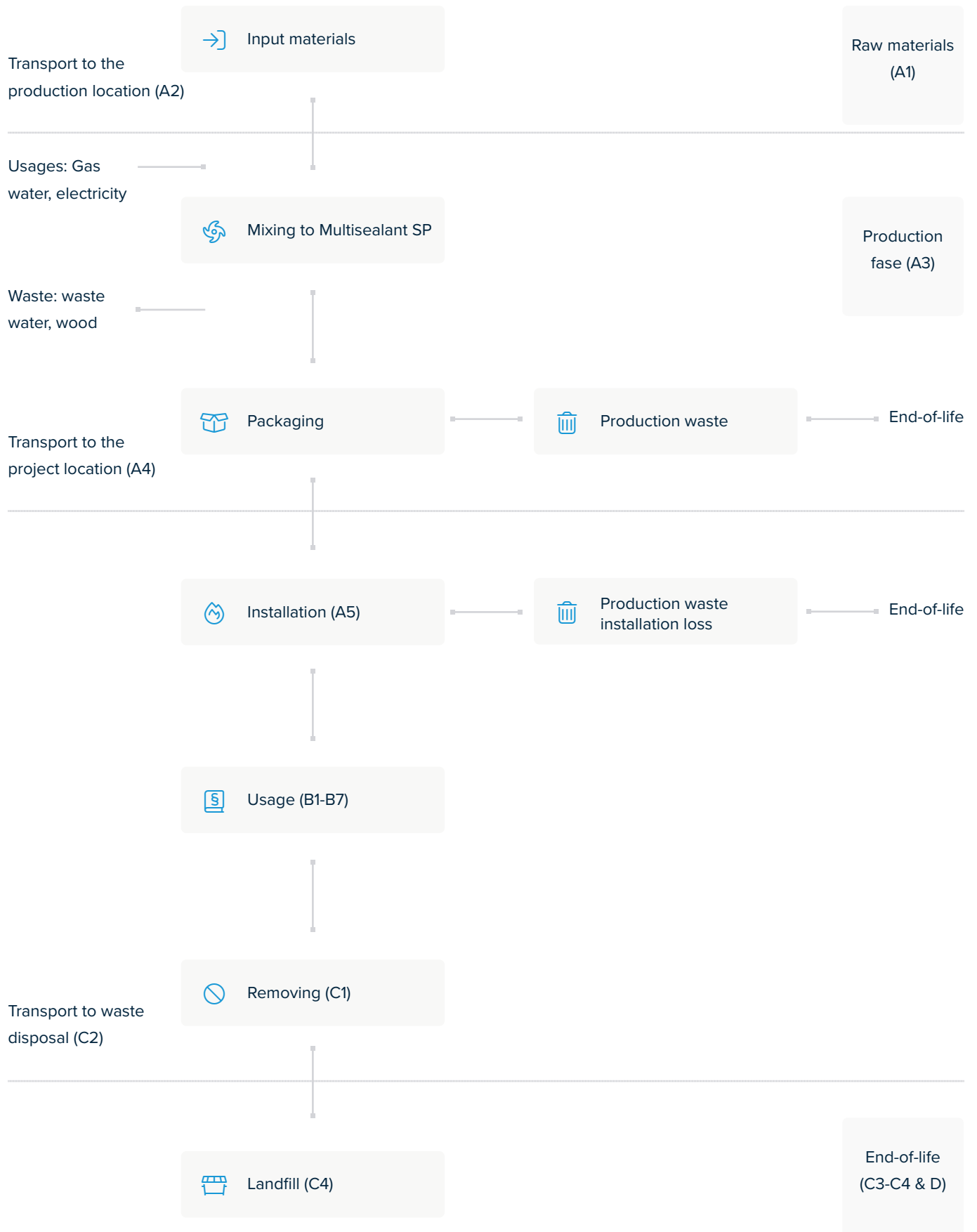
Component (> 1% )	(kg / %)
Binder	32,09%
Clay	18,29%
Filler	11,84%
Plasticizer	5,04%
Flame retardant	12,91%
Thickener	1,38%
Packaging	4,91%

## Scope and type

The LCA study is a cradle-to-grave (A-D) in accordance with the EN15804+A2 and the Dutch Determination method (Bepalingsmethode “Milieuprestatie Bouwwerken” versie 1.1 march 2022). The product is produced in the Netherlands and application of the results is only representable for products sold from the Kaatsheuvel facility. Simapro 9.5.0.0 software was used, using NMD 3.7 and Ecoinvent 3.6 databases.

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USER STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse - Recovery - Recycling - potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

X= Modules Assessed  
 ND= Not Declared



## Representativeness

None.

## Environment impact per functional unit or declared unit (core indicators A1)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADPE	kg Sb eq.	2,50 E-05	8,47 E-07	3,94 E-06	2,98 E-05	8,49 E-07	4,31 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,71 E-07	0,00 E+00	1,49 E-07	0,00 E+00
ADPF	MJ	2,76 E+01	7,64 E-01	5,08 E+00	3,35 E+01	7,66 E-01	3,64 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,02 E-01	0,00 E+00	3,56 E-01	0,00 E+00
GWP	kg CO2 eq.	1,39 E+00	4,93 E-02	3,17 E-01	1,75 E+00	4,94 E-02	3,99 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,69 E-03	0,00 E+00	6,30 E-01	0,00 E+00
ODP	Kg CFC11 eq.	9,78 E-08	9,34 E-09	2,39 E-08	1,31 E-07	9,36 E-09	1,22 E-08	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,19 E-09	0,00 E+00	2,96 E-09	0,00 E+00
POCP	Kg ethene eq.	1,06 E-03	3,03 E-05	1,25 E-04	1,22 E-03	3,01 E-05	1,86 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,04 E-06	0,00 E+00	1,43 E-04	0,00 E+00
AP	kg SO2 eq.	5,86 E-03	1,45 E-04	8,09 E-04	6,82 E-03	1,29 E-04	9,67 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,94 E-05	0,00 E+00	1,43 E-04	0,00 E+00
EP	kg (PO4) 3- eq.	6,30 E-04	2,55 E-05	1,34 E-04	7,90 E-04	2,12 E-05	1,97 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,78 E-06	0,00 E+00	5,96 E-04	0,00 E+00

### Toxicity indicators for Dutch market

HTP	kg DCB-Eq	9,97 E-01	1,06 E-02	1,44 E-01	1,15 E+00	1,06 E-02	1,68 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,82 E-03	0,00 E+00	2,63 E-02	0,00 E+00
FAETP	kg DCB-Eq	1,67 E-02	4,46 E-04	2,59 E-03	1,97 E-02	4,47 E-04	4,71 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,22 E-05	0,00 E+00	2,41 E-03	0,00 E+00
MAETP	kg DCB-Eq	4,94 E+01	1,20 E+00	8,04 E+00	5,86 E+01	1,21 E+00	1,13 E+01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,96 E-01	0,00 E+00	5,99 E+00	0,00 E+00
TETP	kg DCB-Eq	2,08 E-03	5,99 E-05	2,88 E-03	5,02 E-03	6,00 E-05	7,41 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	9,96 E-06	0,00 E+00	8,33 E-05	0,00 E+00
ECI	euro	198 E-01	4,49 E-03	3,50 E-02	2,38 E-01	4,39 E-03	4,27 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,06 E-04	0,00 E+00	4,08 E-02	0,00 E+00
ADPF	kg Sb eq.	1,33 E-02	3,67 E-04	2,44 E-03	1,61 E-02	3,69 E-04	1,75 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,92 E-05	0,00 E+00	1,71 E-04	0,00 E+00

- ADPE** = Abiotic Depletion Potential for non-fossil resources
- ADPF** = Abiotic Depletion Potential for fossil resources
- GWP** = Global Warming Potential
- ODP** = Depletion potential of the stratospheric ozone layer
- POCP** = Formation potential of tropospheric ozone photochemical oxidants
- AP** = Acidification Potential of land and water
- EP** = Eutrophication Potential
- HTP** = Human Toxicity Potential
- FAETP** = Fresh water aquatic ecotoxicity potential
- MAETP** = Marine aquatic ecotoxicity potential
- TETP** = Terrestrial ecotoxicity potential
- ECI** = Environmental Cost Indicator
- ADPF** = Abiotic Depletion Potential for fossil resources expressed in [kg Sb-eq.]

## Environment impact per functional unit or declared unit (core indicators A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP - total	kg CO2 eq.	1,43 E+00	4,97 E-02	3,43 E-01	1,82 E+00	4,98 E-02	4,55 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,75 E-03	0,00 E+00	9,57 E-01	0,00 E+00
GWP - fossil	kg CO2 eq.	1,43 E+00	4,97 E-02	2,87 E-01	1,77 E+00	4,98 E-02	3,20 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,75 E-03	0,00 E+00	6,01 E-02	0,00 E+00
GWP - biogenic	kg CO2 eq.	-1,35 E-03	2,42 E-05	5,58 E-02	5,45 E-02	2,40 E-05	1,34 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,12 E-06	0,00 E+00	8,97 E-01	0,00 E+00
GWP - luluc	kg CO2 eq.	8,67 E-04	1,24 E-05	1,08 E-04	9,88 E-04	1,24 E-05	1,42 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,47 E-06	0,00 E+00	1,80 E-05	0,00 E+00
ODP	kg CFC11 eq.	1,08 E-07	1,17 E-08	2,60 E-08	1,46 E-07	1,18 E-08	1,35 E-08	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,49 E-09	0,00 E+00	3,61 E-09	0,00 E+00
AP	mol H+ eq.	7,01 E-03	1,84 E-04	9,80 E-04	8,17 E-03	1,60 E-04	1,16 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,91 E-05	0,00 E+00	1,80 E-04	0,00 E+00
EP - freshwater	kg PO4 eq.	4,66 E-05	3,45 E-07	8,91 E-06	5,58 E-05	3,47 E-07	8,66 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,81 E-08	0,00 E+00	5,39 E-06	0,00 E+00
EP - marine	kg N eq.	1,11 E-03	4,98 E-05	2,50 E-04	1,41 E-03	3,68 E-05	3,76 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,38 E-05	0,00 E+00	1,27 E-03	0,00 E+00
EP - terrestrial	mol N eq.	1,25 E-02	5,55 E-04	1,97 E-03	1,50 E-02	4,14 E-04	2,16 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,52 E-04	0,00 E+00	4,89 E-04	0,00 E+00
POCP	kg NMVOC eq.	4,67 E-03	1,89 E-04	6,59 E-04	5,52 E-03	1,55 E-04	8,11 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,34 E-05	0,00 E+00	3,51 E-04	0,00 E+00
ADP - minerals & metals	kg Sb eq.	2,50 E-05	8,47 E-07	3,94 E-06	2,98 E-05	8,49 E-07	4,31 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,71 E-07	0,00 E+00	1,49 E-07	0,00 E+00
ADP - fossil	MJ, net calorific value	2,57 E+01	7,72 E-01	4,67 E+00	3,11 E+01	7,74 E-01	3,44 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,02 E-01	0,00 E+00	3,40 E-01	0,00 E+00
WDP	m3 world eq. Deprived	7,18 E-01	3,01 E-03	7,71 E-02	7,99 E-01	3,29 E-03	1,10 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,64 E-04	0,00 E+00	1,18 E-02	0,00 E+00

<b>GWP-total =</b>	Global Warming Potential total
<b>GWP-fossil =</b>	Global Warming Potential fossil fuels
<b>GWP-biogenic =</b>	Global Warming Potential biogenic
<b>GWP-luluc =</b>	Global Warming Potential land use and land use change
<b>ODP =</b>	Depletion potential of the stratospheric ozone layer
<b>AP =</b>	Acidification Potential, Accumulated Exceedence
<b>EP-freshwater =</b>	Eutrophication Potential, fraction of nutrients reaching freshwater end compartment
<b>EP-marine =</b>	Eutrophication Potential, fraction of nutrients reaching marine end compartment
<b>EP-terrestrial =</b>	Eutrophication Potential, Accumulated Exceedence
<b>POCP =</b>	Formation potential of tropospheric ozone photochemical oxidants
<b>ADP-minerals&amp;metals =</b>	Abiotic Depletion Potential for non-fossil resources [2]
<b>ADP-fossil =</b>	Abiotic Depletion for fossil resources potential [2]
<b>WDP =</b>	Water (user) deprivation potential, deprivation-weighted water consumption [2]

Disclaimer [2]

The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## Environment impact per functional unit or declared unit (additional indicators A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	6,28 E-08	3,52 E-09	7,39 E-09	7,37 E-08	3,46 E-09	1,09 E-08	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,06 E-10	0,00 E+00	2,10 E-09	0,00 E+00
IRP	kBq U235 eq.	4,62 E-02	3,32 E-03	8,75 E-03	5,83 E-02	3,32 E-03	8,29 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,26 E-04	0,00 E+00	1,36 E-03	0,00 E+00
ETP-fw	CTUe	3,07 E+01	5,63 E-01	5,38 E+00	3,66 E+01	5,64 E-01	5,93 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	9,07 E-02	0,00 E+00	5,13 E+00	0,00 E+00
HTP-c	CTUh	2,05 E-09	1,43 E-11	3,71 E-10	2,43 E-09	1,43 E-11	3,51 E-10	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,94 E-12	0,00 E+00	3,19 E-11	0,00 E+00
HTP-nc	CTUh	3,01 E-08	4,62 E-10	8,03 E-09	3,86 E-08	4,55 E-10	5,87 E-09	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	9,92 E-11	0,00 E+00	1,55 E-09	0,00 E+00
SQP	----	4,87 E+00	8,84 E-01	6,60 E-01	6,41 E+00	8,85 E-01	1,02 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,83 E-02	0,00 E+00	6,10 E-01	0,00 E+00

- PM** = Potential incidence of disease due to PM emissions  
**IRP** = Potential Human exposure efficiency relative to U235 [1]  
**ETP-fw** = Potential Comparative Toxic Unit for ecosystems [2]  
**HTP-c** = Potential Comparative Toxic Unit for humans [2]  
**HTP-nc** = Potential Comparative Toxic Unit for humans, non-cancer [2]  
**SQP** = Potential soil quality index [2]

### Disclaimer [1]

This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste.

### Disclaimer [2]

The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## Output flows and waste categories per functional unit or declared unit (A1 / A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	1,47 E-05	1,91 E-06	7,66 E-06	2,43 E-05	1,91 E-06	2,50 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,58 E-07	0,00 E+00	1,13 E-06	0,00 E+00
NHWD	kg	2,35 E-01	6,73 E-02	9,42 E-02	3,96 E-01	6,73 E-02	2,01 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,46 E-03	0,00 E+00	1,00 E+00	0,00 E+00
RWD	kg	4,84 E-05	5,25 E-06	8,61 E-06	6,22 E-05	5,26 E-06	8,83 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,68 E-07	0,00 E+00	1,76 E-06	0,00 E+00
CRU	kg	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
MFR	kg	0,00 E+00	0,00 E+00	1,82 E-04	1,82 E-04	0,00 E+00	2,73 E-05	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
MER	kg	0,00 E+00	0,00 E+00	9,79 E-06	9,79 E-06	0,00 E+00	1,47 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
EEE	MJ	0,00 E+00	0,00 E+00	6,63 E-04	6,63 E-04	0,00 E+00	9,95 E-05	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
ETE	MJ	0,00 E+00	0,00 E+00	1,14 E-03	1,14 E-03	0,00 E+00	1,71 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00

- HWD** = Hazardous Waste Disposed  
**NHWD** = Non Hazardous Waste Disposed  
**RWD** = Radioactive Waste Disposed  
**CRU** = Components for reuse  
**MFR** = Materials for recycling  
**MER** = Materials for energy recovery  
**EEE** = Exported Electrical Energy  
**ETE** = Exported Thermal Energy



## Resource use per functional unit or declared unit (A1 / A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	0,00 E+00	0,00 E+00	8,23 E-03	8,23 E-03	0E +00	1E - 03	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00
PERM	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00
PERT	MJ	1,17 E+00	7,88 E-03	1,33 E-01	1,31 E+00	8E- 03	2E- 01	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	1E - 03	0E +00	1E - 02	0E +00
PENRE	MJ	0,00 E+00	0,00 E+00	2,80 E+00	2,80 E+00	0E +00	4E- 01	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00
PENRM	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00
PENRT	MJ	2,75 E+01	8,19 E-01	5,06 E+00	3,34 E+01	8E- 01	4E+ 00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	1E - 01	0E +00	4E- 01	0E +00
SM	kg	0,00 E+00	0,00 E+00	5,55 E-05	5,55 E-05	0E +00	8E- 06	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00
RSF	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00
NRSF	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00
FW	m3	1,84 E-02	9,23 E-05	2,24 E-03	2,08 E-02	1E - 04	3E- 03	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	1E - 05	0E +00	3E- 04	0E +00

**PERE** = Use of renewable energy excluding renewable primary energy resources

**PERM** = Use of renewable energy resources used as raw materials

**PERT** = Total use of renewable primary energy resources

**PENRE** = Use of non-renewable primary energy resources excluding non-renewable energy resources used as raw materials

**PENRM** = Use of non-renewable primary energy resources used as raw materials

**PENRT** = Total use of non-renewable primary energy resources

**SM** = Use of secondary materials

**RSF** = Use of renewable secondary fuels

**NRSF** = Use of non-renewable secondary fuels

**FW** = Use of net fresh water

## Biogenic carbon content per functional unit or declared unit (A1 / A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
BBCpr	Kg C	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00
BCCpa	kg C	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00	0E +00

**BCCpr** = Biogenic carbon content in product

**BCCpa** = Biogenic carbon content in packaging

## Calculation rules

Energy and resource usage of the production facilities have been mass allocated based on data from 2023. A full calendar year of production data was used.

The resulting averages were calculated by aggregating the total energy and resource usage over the year and dividing by the number of production units or time periods. Capital goods, such as factory infrastructure, were excluded from this analysis to focus on operational energy and resource usage.

## Scenarios and additional technical information

Multimastic SP is mixed in the production facility in Kaatsheuvel (A1-A3). Then they are packed and shipped to the customer (A4). Installation loss percentages (A5) are according to the NMD Assessment Method. After their useful life they are shipped (C2) to waste processing to fully go into landfill (C2-C4). The transport distance to waste treatment is also calculated according to the NMD Assessment Method.

## Declaration of SVHC

Analysis show no SVHC present in the product.

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## Remarks

None.



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