SHERWIN-WILLIAMS®

**Environmental Product Declaration**

According to ISO14025+EN15804+A2

This declaration is for:
**Dura-Plate SW-501**

Provided by:
**Sherwin-Williams UK Ltd, Protective & Marine Division**


MRPI® registration:
**1.1.01008.2025**

Program operator:
**Stichting MRPI®**
Publisher:
**Stichting MRPI®**
**www.mrpi.nl**

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**22-10-2025**
Expiry date:
**22-10-2030**

## COMPANY INFORMATION

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## MRPI® REGISTRATION

1.1.01008.2025

## DATE OF THIS ISSUE

22-10-2025

## EXPIRY DATE

22-10-2030

## SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Gert-Jan Vroege, Eco-intelligence. The LCA study has been done by Gudo Wisselo, Brienne Wiersema, Max Sonnen, Ecomatters B.V.. The certificate is based on an LCA-dossier according to ISO14025+EN15804+A2. It is verified according to the 'Verification protocol for MRPI LCA project report & EPD 21th of May 2025, V. 5.2'. EPDs 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.

## PROGRAM OPERATOR

Stichting MRPI®
Kingsfordweg 151
1043 GR
Amsterdam

## PRODUCT

Dura-Plate SW-501

## DECLARED UNIT / FUNCTIONAL UNIT

1 Area (m2)

## DESCRIPTION OF PRODUCT

A mechanically resistant 2-pack epoxy coating with 100% volume solids.

## VISUAL PRODUCT


## MORE INFORMATION

www.sherwin-williams.com/protectiveEMEA

| Ing. L. L. Oosterveen MSc. MBA<br>Managing Director MRPI | DEMONSTRATION OF VERIFICATION |
|---|---|
| | CEN standard EN15804 serves as the core PCR [1] |
| | Independent verification of the declaration and data according to ISO14025+EN15804+A2<br>Internal: External: X |
| | Third party verifier: Gert-Jan Vroege, Eco-intelligence |
| | [1] PCR = Product Category Rules |

## DETAILED PRODUCT DESCRIPTION

Dura-Plate SW-501 is a mechanically resistant 2-pack epoxy coating with 100% volume solids, for offshore structures and hydraulic steel structures.

Typical Use
Can be used as a corrosion protection coating system for offshore structures and hydraulic steel structures (e.g. flood gates, steel sheet piles, monopiles, transition pieces etc.), where a mechanically resistant coating is required.

Application Method
Spray, brush, roller

Pack Size
10,7L

Production process and conditions of delivery
Part A and B are manufactured via a batch based high speed dispersion method. Product is supplied in two separate components, to be mixed immeditely prior to use.

| Paint characteristics | | Unit |
|---|---|---|
| Waterborne / Solventborne | Solvent free | value |
| Interior wall / Exterior wall / Trim | Exterior | value |
| Service life of one coating layer | 25 | years |
| Density | 1,32 | kg/L |
| Coverage | 3,75 | m2/L |
| Number of layers | 1 | value |
| VOC content | 0 | g/L paint |

| Component (> 1%) | (kg / %) |
|---|---|
| Resin - Epoxy | Confidential |
| Pigment - silicon dioxide | Confidential |
| Pigment - Talc | Confidential |
| Resin - Epoxy diluent | Confidential |
| Resin - Amine | Confidential |
| Resin - Phenol based | Confidential |

## SCOPE AND TYPE

The type of this EPD is Cradle-to-Gate with options. All major steps from the extraction of natural resources to the final disposal of the product are included in the environmental performance of the manufacturing phase, except those that are not relevant to the environmental performance of the product. This declaration does not imply an indicator result of zero.

This EPD is representative for products produced in Vaihingen, DE and the application market is for customers in Europe. Likewise, for the end-of-life, the fate of the paint product is described within a European context.

The software LCA for Experts 10.9.0.31 is used to perform the LCA. In the model Ecoinvent 3.10 database was used.

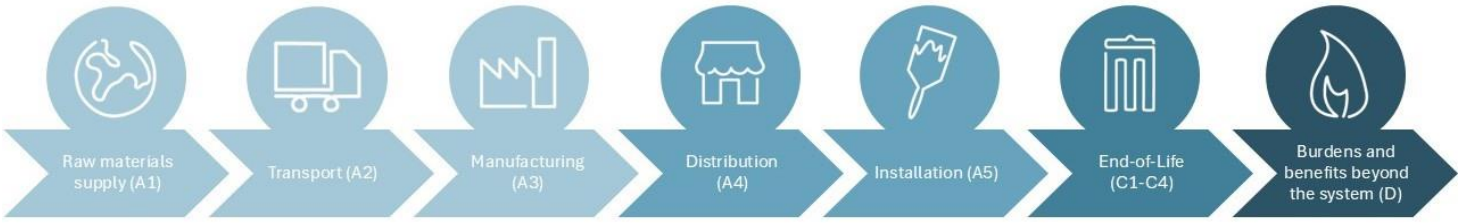
The validity of this EPD is in correspondence with the specifications of the LCA project report.

All impacts associated with the upstream production of materials and energy are included in the system boundaries. Mining activities and controlled landfills are included in the product systems. The emissions and resource extractions derived from these processes are considered elementary exchanges between the product systems and the environment.

| PRODUCT STAGE | | | CONSTRUCTION PROCESS STAGE | | USE 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 | ND | ND | ND | ND | ND | ND | ND | X | X | X | X | X |

X = Modules Assessed

ND = Not Declared




## REPRESENTATIVENESS

This is a product specific EPD for Dura-Plate SW-501.

## ENVIRONMENTAL 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. | 1,38E+00 | 1,96E-02 | 2,99E-01 | 1,70E+00 | 3,47E-02 | 1,05E-01 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,27E-03 | 0,00E+00 | 8,93E-01 | -4,41E-01 |
| GWP-fossil | kg CO2 eq. | 1,35E+00 | 1,95E-02 | 3,18E-01 | 1,69E+00 | 3,46E-02 | 1,05E-01 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,27E-03 | 0,00E+00 | 8,47E-01 | -4,39E-01 |
| GWP-biogenic | kg CO2 eq. | -2,34E-02 | 1,01E-05 | -1,90E-02 | -4,24E-02 | 1,79E-05 | 3,57E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,17E-06 | 0,00E+00 | 4,52E-02 | -1,79E-03 |
| GWP-luluc | kg CO2 eq. | 4,89E-02 | 6,69E-06 | 2,59E-04 | 4,92E-02 | 1,19E-05 | 1,57E-05 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 7,76E-07 | 0,00E+00 | 1,33E-04 | -1,70E-04 |
| ODP | kg CFC11 eq. | 1,54E-08 | 3,93E-10 | 3,59E-09 | 1,94E-08 | 6,96E-10 | 1,01E-09 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 6,09E-11 | 0,00E+00 | 8,17E-09 | -1,69E-08 |
| AP | mol H+ eq. | 4,03E-03 | 6,31E-05 | 1,37E-03 | 5,46E-03 | 1,12E-04 | 1,08E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 9,78E-06 | 0,00E+00 | 9,12E-04 | -5,62E-04 |
| EP-fresh water | kg P eq. | 1,27E-04 | 1,33E-06 | 1,13E-04 | 2,42E-04 | 2,35E-06 | 2,98E-05 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,06E-07 | 0,00E+00 | 2,44E-04 | -5,13E-05 |
| EP-marine | kg N eq. | 1,02E-03 | 2,16E-05 | 2,74E-04 | 1,32E-03 | 3,82E-05 | 2,79E-05 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 3,34E-06 | 0,00E+00 | 2,32E-04 | -1,61E-04 |
| EP-terrestrial | mol N eq. | 9,02E-03 | 2,33E-04 | 2,82E-03 | 1,21E-02 | 4,13E-04 | 2,54E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 3,61E-05 | 0,00E+00 | 2,13E-03 | -1,60E-03 |
| POCP | kg NMVOC eq. | 3,20E-03 | 1,03E-04 | 6,04E-02 | 6,37E-02 | 1,82E-04 | 1,12E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,59E-05 | 0,00E+00 | 9,20E-04 | -8,78E-04 |
| ADP-minerals & metals | kg Sb eq. | 2,21E-06 | 5,27E-08 | 6,88E-06 | 9,14E-06 | 9,35E-08 | 1,12E-07 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 8,17E-09 | 0,00E+00 | 1,20E-06 | -2,34E-07 |
| ADP-fossil | MJ, net calorific value | 2,29E+01 | 2,84E-01 | 4,18E+00 | 2,73E+01 | 5,04E-01 | 5,08E-01 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 4,41E-02 | 0,00E+00 | 4,10E+00 | -7,30E+00 |
| WDP | m3 world eq. Deprived | 1,56E+00 | 1,82E-03 | 1,22E-01 | 1,69E+00 | 3,23E-03 | 8,10E-03 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,82E-04 | 0,00E+00 | 6,62E-02 | -5,38E-02 |

| | | |
|---|---|---|
| GWP-total | = | Global Warming Potential total |
| GWP-fossil | = | Global Warming Potential fossil fuels |
| GWP-biogenic | = | Global Warming Potential biogenictotal |
| GWP-luluc | = | Global Warming Potential land use and land use change |
| ODP | = | Depletion potential of the stratospheric ozone layer |
| AP | = | Acidification Potential, Accumulated Exceedence |
| EP-freshwater | = | Eutrophication Potential, fraction of nutrients reaching freshwater end compartment |
| EP-marine | = | Eutrophication Potential, fraction of nutrients reaching marine end compartment |
| EP-terrestrial | = | Eutrophication Potential, Accumulated Exceedence |
| POCP | = | Formation potential of tropospheric ozone photochemical oxidants |
| ADP-minerals & metals | = | Abiotic Depletion Potential for non-fossil resources [1] |
| ADP-fossil | = | Abiotic Depletion for fossil resources potential [1] |
| WDP | = | Water (user) deprivation potential, deprivation-weighted water consumption [1] |

Disclaimer [1]:

- 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.

## ENVIRONMENTAL 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 inci-dence | 6,87E-08 | 1,50E-09 | 1,62E-08 | 8,64E-08 | 2,66E-09 | 1,16E-09 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,32E-10 | 0,00E+00 | 9,70E-09 | -3,10E-09 |
| IRP | kBq U235 eq. | 7,53E-02 | 3,44E-04 | 2,34E-02 | 9,90E-02 | 6,10E-04 | 2,49E-03 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 5,34E-05 | 0,00E+00 | 2,06E-02 | -3,22E-02 |
| ETP-fw | CTUe | 3,04E+01 | 6,72E-02 | 2,04E+00 | 3,25E+01 | 1,19E-01 | 1,56E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,04E-02 | 0,00E+00 | 1,27E+01 | -1,45E+00 |
| HTP-c | CTUh | 7,47E-10 | 1,21E-10 | 4,46E-09 | 5,33E-09 | 2,15E-10 | 2,16E-10 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,88E-11 | 0,00E+00 | 1,76E-09 | -4,48E-09 |
| HTP-nc | CTUh | 2,53E-08 | 1,70E-10 | 5,43E-09 | 3,09E-08 | 3,01E-10 | 3,06E-10 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,63E-11 | 0,00E+00 | 2,70E-09 | -1,21E-09 |
| SQP | - | 2,76E+00 | 2,85E-01 | 4,15E+00 | 7,20E+00 | 5,05E-01 | 7,88E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 4,41E-02 | 0,00E+00 | 6,66E-01 | -3,03E-01 |

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, cancer [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 en A2)

| | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HWD | kg | 6,02E-04 | 2,79E-04 | 2,19E-02 | 2,28E-02 | 4,95E-04 | 9,09E-03 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 4,33E-05 | 0,00E+00 | 3,38E-01 | 0,00E+00 |
| NHWD | kg | 2,33E-03 | 0,00E+00 | 1,43E-02 | 1,67E-02 | 0,00E+00 | 5,79E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RWD | kg | 5,81E-05 | 0,00E+00 | 0,00E+00 | 5,81E-05 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| CRU | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| MFR | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,34E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| MER | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| EEE | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| ETE | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+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

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## RESOURCE USE per functional unit or declared unit (A1 and A2)

| | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERE | MJ | 1,04E+00 | 4,51E-03 | 1,05E+00 | 2,09E+00 | 8,00E-03 | 2,74E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 6,99E-04 | 0,00E+00 | 2,31E-01 | -2,78E-01 |
| PERM | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PERT | MJ | 1,04E+00 | 4,51E-03 | 1,05E+00 | 2,09E+00 | 8,00E-03 | 2,74E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 6,99E-04 | 0,00E+00 | 2,31E-01 | -2,78E-01 |
| PENRE | MJ | 2,29E+01 | 2,84E-01 | 4,18E+00 | 2,73E+01 | 5,04E-01 | 5,08E-01 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 4,41E-02 | 0,00E+00 | 4,10E+00 | -7,30E+00 |
| PENRM | MJ | 7,60E-07 | 0,00E+00 | 0,00E+00 | 7,60E-07 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 2,29E+01 | 2,84E-01 | 4,18E+00 | 2,73E+01 | 5,04E-01 | 5,08E-01 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 4,41E-02 | 0,00E+00 | 4,10E+00 | -7,30E+00 |
| SM | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NSRF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m3 | 3,64E-02 | 4,24E-05 | 2,84E-03 | 3,93E-02 | 7,52E-05 | 1,89E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 6,57E-06 | 0,00E+00 | 1,54E-03 | -1,25E-03 |

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials
PERM = Use of renewable primary 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
NSRF = Use of non-renewable secondary fuels
FW = Use of net fresh water

## BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 and A2)

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

BCCpr = Biogenic carbon content in product
BCCpa = Biogenic carbon content in packaging

## CALCULATION RULES

Cut off criteria

Some cut-offs were applied in this study. During the manufacturing process, the input of consumables and the packaging waste from raw materials were excluded from the system boundaries due to a lack of data on the composition of this waste. A negligible amount of waste steel generated during manufacturing is also excluded. Furthermore, application tools such as brushes, cloths, and buckets are not included in the assessment, as they are considered capital goods. Reconditioned drums were not modelled as a separate input in the manufacturing process, as these are generally reused over several years. Therefore, the materials used for the drums are cut-off from, but all inputs required for reconditioning the drums in the manufacturing site are included. Additionally, energy consumed during application—for example, by spray applicators—has not been included due to its insignificance. No other cut-offs of outputs, raw materials, or other inputs were made at any life cycle stage.

Data quality and data collection period

Specific data was collected from Sherwin-Williams through a questionnaire, including inquiries about paint characteristics and packaging, production information and end-of-life. The data collection period for specific data was the year 2023. Data gaps (i.e. transport data, end of life scenarios) were covered with data generic values for transport as described in the Product Environmental Footprint Category Rules - Decorative Paints document version 1.0 published by CEPE and reviewed in April 2018 and the Product Environmental Footprint method (European Comission, 2021). Generic data (i.e. upstream acquisition and production of raw materials, transport, waste treatment processes) was selected from Ecoinvent 3.10 database. In the case of missing data, a relevant proxy was searched and adjusted to the corresponding unit process.

Allocation procedure

To allocate the emissions and inputs to the manufactured products, the decision-hierarchy in ISO 14044 is used (ISO 2006). It is not possible to sub-divide the site data into a more detailed level or find physical causalities between inputs and outputs, thus allocation is done based on mass, considering the annual production of paint product for each site. The production of paint comprises only of the mixing ingredients. Therefore, the environmental impact is expected to be related to the mass of the products.

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

A1. Raw materials supply

This module considers the extraction and processing of all raw materials and energy which occur upstream to the manufacturing process, as well as waste processing up to the end-of waste state.

A2. Transport of raw materials to manufacturer

This includes the transport distance of the raw materials to the manufacturing facility via road. As no primary data was available for the transportation distances, the default values from the PEFCR for Decorative Paints were used.

| Transport of raw materials | | unit |
|---|---|---|
| Distance for raw materials | 460 | km |
| Distance for packaging materials | 250 | km |
| Capacity | > 32 t, 64% payload | value |

A3. Manufacturing

This module covers manufacturing and includes all processes linked to production such as storing, mixing, packing and internal transportation. Use of electricity, fuels and auxiliary materials in paint production is accounted for.

Data regarding paint production was provided for the manufacturing site where the coating is produced in Vaihingen, DE. Primary data and site-specific data was provided for the consumption of utilities and product packaging. The electricity is modelled by the residual electricity mix using the Ecoinvent 3.10 datasets. For upstream (raw material processes) and downstream processes (application, use, and waste processing) generic data is used when no specific data was available.

The manufacture of production equipment and infrastructure is not included in the system boundary.

A4. Transport to Regional Distribution Centre and customer

All paint containers are transported from the production facility into a distribution centre and then finally to the customer. As no primary data was available for the transportation distances, the default values from the PEFCR for Decorative Paints were used.

| Transport to RDC and PoS | | unit |
|---|---|---|
| Factory to Regional Distribution Centre | 350 | km |
| Regional Distribution Centre to Point of Sale | 370 | km |
| Capacity | > 32 t, 64% payload | value |

A5. Application and use
This module includes the environmental aspects and impacts associated with the application and of the paint. It is assumed that no energy is required during the application of this paint. The use of paintbrushes and other appliances used during application are not included. There are some raw materials added in the paint formulations which contain small amounts of solvents. The VOC emissions during application of paint are included in this module.

C2. Transport to incineration
This module includes one-way transportation distance of the demolition or sorting site to the dump site. As no primary data was available for the transportation distances, the default values from the PEFCR for Decorative Paints were used.

| Transport of EoL waste | | unit |
|---|---|---|
| Distance for raw materials | 80 | km |
| Capacity | > 32 t, 64% payload | value |

C3. Waste processing and C4. Disposal
The end of life stage is encompassed in these modules. It is assumed that the paint is used as exterior paint and that part of the paint is lost during application. The applied paint is then disposed of with the substrate on which it has been applied.

| EoL | | unit |
|---|---|---|
| Incineration with energy recovery | 100 | % |

## DECLARATION OF SVHC

None of the substances contained in the product are listed in the “Candidate List of Substances of Very High Concern for authorisation”, or they do not exceed the threshold with the European Chemicals Agency.

## REFERENCES


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•Product Environmental Footprint Category Rules - Decorative Paints version 1.0, 2018. Developed by the Technical Secretariat Decorative Paints of the European Council of the Paint, Printing Ink and Artists' Colours Industry.

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## REMARKS

None