# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

Version 8.4
Revision Date 31.12.2025
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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : MCE .45UM WH PL 47MM 100PK

Product Number : HAWP04700
Catalogue No. : 635492
Brand : Millipore
REACH No. : This product is a mixture. REACH Registration Number see section 3.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Filtration

### 1.3 Details of the supplier of the safety data sheet

Company : Merck Life Science S.A.S
80 Rue de Luzais
F-38297 SAINT QUENTIN FALLAVIER CEDEX

Telephone : +33 (0)1 85 16 94 34
E-mail address : servicetechnique@merckgroup.com

### 1.4 Emergency telephone number

Emergency Phone # : +33 (0)9 75 18 14 07 (CHEMTREC)
+33 (0)1 45 42 59 59 (I.N.R.S.)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

| | |
|---|---|
| Flammable solids, Category 1 | H228: Flammable solid. |
| Endocrine disruptor for environment, Category 1 | EUH430: May cause endocrine disruption in the environment. |

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**



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Hazard pictograms :



Signal word : Danger

Hazard statements :

| | |
|---|---|
| H228 | Flammable solid. |
| EUH430 | May cause endocrine disruption in the environment. |

Precautionary statements :

**Prevention:**

| | |
|---|---|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P273 | Avoid release to the environment. |

**Response:**

| | |
|---|---|
| P391 | Collect spillage. |

**Storage:**

| | |
|---|---|
| P405 | Store locked up. |

**Disposal:**

| | |
|---|---|
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

**Hazardous components which must be listed on the label:**

Octylphenol polyethoxyethanol

**Reduced Labelling (<= 125 ml)**

Hazard pictograms :



| | |
|---|---|
| Signal word | Danger |
| Hazard Statements | |
| EUH430 | May cause endocrine disruption in the environment. |
| Precautionary Statements | |
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P273 | Avoid release to the environment. |
| P391 | Collect spillage. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal |



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| | |
|---|---|
| | plant. |
| Supplemental Hazard Statements | none |

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: This substance/mixture contains components considered to have endocrine disrupting properties for environment , according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Components**

| Chemical name | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|
| Octylphenol polyethoxyethanol | 9036-19-5<br><br>* | Acute Tox. 4; H302<br>Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410<br>ED ENV 1; EUH430<br>---<br>M-Factor (Acute aquatic toxicity): 10<br>M-Factor (Chronic aquatic toxicity): 1<br>---<br>Acute toxicity estimate<br><br>Acute oral toxicity: 500 mg/kg | >= 0,1 - < 0,25 |



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*A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, or the annual tonnage does not require a registration.

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

| | | |
|---|---|---|
| General advice | : | Show this safety data sheet to the doctor in attendance. |
| If inhaled | : | After inhalation: fresh air. |
| In case of skin contact | : | In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. |
| In case of eye contact | : | After eye contact: rinse out with plenty of water. Remove contact lenses. |
| If swallowed | : | After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell. |

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | | |
|---|---|---|
| Suitable extinguishing media | : | Water<br>Foam<br>Carbon dioxide (CO2)<br>Dry powder |
| Unsuitable extinguishing media | : | For this substance/mixture no limitations of extinguishing agents are given. |

### 5.2 Special hazards arising from the substance or mixture

| | | |
|---|---|---|
| Specific hazards during fire fighting | : | Combustible.<br><br>Development of hazardous combustion gases or vapours possible in the event of fire. |
| Hazardous combustion products | : | Carbon oxides |

### 5.3 Advice for firefighters

| | | |
|---|---|---|
| Special protective | : | In the event of fire, wear self-contained breathing |



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| | | |
|---|---|---|
| equipment for fire-fighters | | apparatus. |
| Further information | : | Prevent fire extinguishing water from contaminating surface water or the ground water system. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | | |
|---|---|---|
| Personal precautions | : | Advice for non-emergency personnel:<br>Avoid inhalation of dusts.<br>Avoid substance contact.<br>Ensure adequate ventilation.<br>Keep away from heat and sources of ignition.<br>Evacuate the danger area, observe emergency procedures, consult an expert. |

For personal protection see section 8.

### 6.2 Environmental precautions

| | | |
|---|---|---|
| Environmental precautions | : | Do not let product enter drains.<br>Risk of explosion. |

### 6.3 Methods and material for containment and cleaning up

| | | |
|---|---|---|
| Methods for cleaning up | : | Cover drains. Collect, bind, and pump off spills.<br>Observe possible material restrictions (see sections 7 and 10).<br>Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. |

### 6.4 Reference to other sections

For disposal considerations see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

| | | |
|---|---|---|
| Advice on safe handling | : | Observe label precautions. |
| Advice on protection against fire and explosion | : | Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. |
| Hygiene measures | : | Change contaminated clothing. Wash hands after working with substance. |

For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

| | | |
|---|---|---|
| Further information on storage conditions | : | Tightly closed. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons. |



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| | | |
|---|---|---|
| Advice on common storage | : | Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. |
| Storage class (TRGS 510) | : | 4.1B, Flammable solid hazardous materials |
| Further information on storage stability | : | Recommended storage temperature see product label. |

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational Exposure Limits**

### 8.2 Exposure controls

**Personal protective equipment**

| | | |
|---|---|---|
| Eye/face protection | : | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).<br>Safety glasses |

Hand protection

| | | |
|---|---|---|
| Material | : | Nitrile rubber |
| Break through time | : | 480 min |
| Glove thickness | : | 0,11 mm |
| Protective index | : | Full contact |
| Manufacturer | : | KCL 741 Dermatril® L |

| | | |
|---|---|---|
| Material | : | Nitrile rubber |
| Break through time | : | 480 min |
| Glove thickness | : | 0,11 mm |
| Protective index | : | Splash contact |
| Manufacturer | : | KCL 741 Dermatril® L |
| Remarks | : | This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). |
| Skin and body protection | : | Flame retardant antistatic protective clothing. |
| Respiratory protection | : | required when dusts are generated.<br>Our recommendations on filtering respiratory |



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protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: : Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Protective measures : protective clothing

**Environmental exposure controls**

Advice : Do not let product enter drains.
Risk of explosion.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | solid |
| Color | : | coloured |
| Odor | : | No data available |
| Melting point | : | No data available |
| Boiling point | : | No data available |
| Flammability | : | The substance or mixture is a flammable solid with the category 1. |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Flash point | : | No data available |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| pH | : | No data available |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | No data available |



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| | | |
|---|---|---|
| Flow time | : | No data available |
| Water solubility | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Vapor pressure | : | No data available |
| Relative density | : | No data available |
| Density | : | No data available |
| Relative vapour density | : | No data available |

### 9.2 Other information

| | | |
|---|---|---|
| Explosives | : | Not classified as explosive. |
| Oxidizing properties | : | none |
| Burning rate | : | No data available |
| Evaporation rate | : | No data available |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

| | | |
|---|---|---|
| Hazardous reactions | : | Risk of ignition or formation of inflammable gases or vapours with:<br>Oxidizing agents<br>Bases<br>Strong acids |

### 10.4 Conditions to avoid

| | | |
|---|---|---|
| Conditions to avoid | : | no information available |

### 10.5 Incompatible materials

No data available

### 10.6 Hazardous decomposition products



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In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Mixture**

**Acute toxicity**
Oral: No data available

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**
Remarks: No data available

**Serious eye damage/eye irritation**
Remarks: No data available

**Respiratory or skin sensitization**
No data available

**Germ cell mutagenicity**
No data available

**Carcinogenicity**
Carcinogenicity - No data available

**Reproductive toxicity**
No data available

Reproductive toxicity - No data availableDevelopmental Toxicity - No data available**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

### 11.2 Additional Information

**Endocrine disrupting properties**

**Product:**

| | |
|---|---|
| Assessment | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

Risk of methaemoglobin formation.
Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.



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**Components**

**Octylphenol polyethoxyethanol**

**Acute toxicity**
LD50 Oral - Rat - 1.900 - 5.000 mg/kg
Remarks: (External MSDS)
Symptoms: Vomiting, Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract., Risk of aspiration upon vomiting., Aspiration may cause pulmonary oedema and pneumonitis.
Acute toxicity estimate Oral - 500 mg/kg
(ATE value derived from LD50/LC50 value)
Inhalation: No data available
LD50 Dermal - Rabbit - > 3.000 mg/kg
Remarks: (External MSDS)

**Skin corrosion/irritation**
Skin - Rabbit
Result: irritating - 4 h
(OECD Test Guideline 404)
Remarks: The value is given in analogy to the following substances: 4-(1,1,3,3-tetramethylbutyl)phenol

**Serious eye damage/eye irritation**
Eyes - Rabbit
Result: Risk of serious damage to eyes.
(Draize Test)
Remarks: Risk of corneal clouding.

**Respiratory or skin sensitization**
Sensitisation test: - Human
Result: negative
Remarks: (External MSDS)
Patch test on human volunteers did not demonstrate sensitisation properties.

**Germ cell mutagenicity**
No data available

**Carcinogenicity**
No data available

**Reproductive toxicity**
Ingestion of excessive amounts by pregnant animals resulted in maternal and foetal toxicity. Did not show teratogenic effects in animal experiments.

**Specific target organ toxicity - single exposure**
Acute oral toxicity - Vomiting, Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract., Risk of aspiration upon vomiting., Aspiration may cause pulmonary oedema and pneumonitis.

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available



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## SECTION 12: Ecological information

### 12.1 Toxicity

**Product:**

| | | |
|---|---|---|
| Toxicity to fish | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates | : | Remarks: No data available |
| Toxicity to algae/aquatic plants | : | Remarks: No data available |
| Toxicity to fish (Chronic toxicity) | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | Remarks: No data available |
| Toxicity to microorganisms | : | Remarks: No data available |

**Ecotoxicology Assessment**

**Components:**

**Octylphenol polyethoxyethanol:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Leuciscus idus (Golden orfe)): 0,26 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 203<br>GLP: yes<br>Remarks: The value is given in analogy to the following substances:<br>The value is given in analogy to the following substances: 4-(1,1,3,3-tetramethylbutyl)phenol |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 0,011 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Remarks: (ECOTOX Database)<br>The value is given in analogy to the following substances:<br>The value is given in analogy to the following substances: 4-(1,1,3,3-tetramethylbutyl)phenol |
| Toxicity to algae/aquatic plants | : | EC50 (Pseudokirchneriella subcapitata (green algae)): 1,9 mg/l<br>Exposure time: 96 h<br>Test Type: static test |



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GLP: yes
Remarks: (ECHA)
The value is given in analogy to the following substances:
The value is given in analogy to the following substances: 4-(1,1,3,3-tetramethylbutyl)phenol

| | | |
|---|---|---|
| M-Factor (Acute aquatic toxicity) | : | 10 |
| Toxicity to fish (Chronic toxicity) | : | NOEC: 0,012 mg/l<br>Species: Danio rerio (zebra fish)<br>Test Type: flow-through test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 210<br>Remarks: The value is given in analogy to the following substances:<br>The value is given in analogy to the following substances: 4-(1,1,3,3-tetramethylbutyl)phenol |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC: 0,03 mg/l<br>End point: reproduction rate<br>Exposure time: 21 d<br>Species: Daphnia magna (Water flea)<br>Test Type: semi-static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 202<br>GLP: yes<br>Remarks: The value is given in analogy to the following substances:<br>The value is given in analogy to the following substances: 4-(1,1,3,3-tetramethylbutyl)phenol |
| M-Factor (Chronic aquatic toxicity) | : | 1 |

## 12.2 Persistence and degradability

**Components:**

**Octylphenol polyethoxyethanol:**

| | | |
|---|---|---|
| Biodegradability | : | Test Type: aerobic<br>Inoculum: activated sludge<br>Concentration: 100 mg/l<br>Result: Not readily biodegradable.<br>Biodegradation: 22 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301C |

## 12.3 Bioaccumulative potential

No data available



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### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

**Product:**

Assessment : This substance/mixture contains components considered to have endocrine disrupting properties for environment , according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

**Components:**

**Octylphenol polyethoxyethanol:**

Assessment : The substance is considered to have endocrine disrupting properties according to REACH Article 57(f) for the environment.

### 12.7 Other adverse effects

**Product:**

Additional ecological information : Discharge into the environment must be avoided.

**Components:**

**Octylphenol polyethoxyethanol:**

Additional ecological information : Causes endocrine disruption.

Discharge into the environment must be avoided.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : This mixed cellulose ester membrane contains 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (4-tert-OPnEO). To avoid environmental contamination during the waste stage, devices manufactured with this product should not be disposed of to normal household waste. Disposal should be in accordance with general disposal instructions applicable to in vitro



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medical devices. Please make sure that your customers are aware of these disposal instructions for the product.

## SECTION 14: Transport information

### 14.1 UN number or ID number

| | | |
|---|---|---|
| **ADR** | : | UN 3270 |
| **IMDG** | : | UN 3270 |
| **IATA** | : | UN 3270 |

### 14.2 UN proper shipping name

| | | |
|---|---|---|
| **ADR** | : | NITROCELLULOSE MEMBRANE FILTERS |
| **IMDG** | : | NITROCELLULOSE MEMBRANE FILTERS |
| **IATA** | : | Nitrocellulose membrane filters |

### 14.3 Transport hazard class(es)

| | | Class | Subsidiary risks |
|---|---|---|---|
| **ADR** | : | 4.1 | |
| **IMDG** | : | 4.1 | |
| **IATA** | : | 4.1 | |

### 14.4 Packing group

**ADR**

| | | |
|---|---|---|
| Packing group | : | II |
| Classification Code | : | F1 |
| Labels | : | 4.1 |
| Tunnel restriction code | : | (E) |

**IMDG**

| | | |
|---|---|---|
| Packing group | : | II |
| Labels | : | 4.1 |
| EmS Code | : | F-A, S-I |

**IATA (Cargo)**

| | | |
|---|---|---|
| Packing instruction (cargo aircraft) | : | 458 |
| Packing instruction (LQ) | : | Y458 |
| Packing group | : | II |
| Labels | : | Division 4.1 - Flammable solids |

**IATA_P (Passenger)**

| | | |
|---|---|---|
| Packing instruction (passenger aircraft) | : | 458 |
| Packing instruction (LQ) | : | Y458 |
| Packing group | : | II |
| Labels | : | Division 4.1 - Flammable solids |



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### 14.5 Environmental hazards

**ADR**

Environmentally hazardous : no

**IMDG**

Marine pollutant : no

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Octylphenol polyethoxyethanol

Regulation (EU) No 2024/590 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Octylphenol polyethoxyethanol

This product contains a substance listed on Annex XIV of the REACH Regulation (EC) Nr. 1907/2006.
Listed substance / Sunset Date : Octylphenol polyethoxyethanol / 04.01.2021

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable



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### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Relevant changes since previous version

13. Disposal considerations

### Full text of H-Statements

| | | |
|---|---|---|
| EUH430 | : | May cause endocrine disruption in the environment. |
| H302 | : | Harmful if swallowed. |
| H315 | : | Causes skin irritation. |
| H318 | : | Causes serious eye damage. |
| H400 | : | Very toxic to aquatic life. |
| H410 | : | Very toxic to aquatic life with long lasting effects. |

### Full text of other abbreviations

| | | |
|---|---|---|
| Acute Tox. | : | Acute toxicity |
| Aquatic Acute | : | Short-term (acute) aquatic hazard |
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard |
| ED ENV | : | Endocrine disruptor for environment |
| Eye Dam. | : | Serious eye damage |
| Skin Irrit. | : | Skin irritation |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations



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concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

Other information : The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.
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| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Flam. Sol. 1 | H228 | Based on product data or assessment |
| ED ENV 1 | EUH430 | Calculation method |

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The life science business of Merck operates as MilliporeSigma in the US and Canada