# SUPEROTO 450 3074 SG RICHPALE

| Version | Revision Date: | SDS Number: | Print Date: 06.05.2026 |
|---|---|---|---|
| 6.0 | 05.05.2026 | 102000020184 | Date of first issue: 12.03.2014 |

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

### 1.1 Product identifier

Trade name : SUPEROTO 450 3074 SG RICHPALE

Product code : 013247D80

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

Use of the Substance/Mixture : Coloring agents, pigments

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

Company : ECKART GmbH
Guentersthal 4
91235 Hartenstein

Telephone : +499152770

Telefax : +499152777008

E-mail address of person responsible for the SDS : msds.eckart@altana.com

### 1.4 Emergency telephone

NCEC: +44 1235 239670 (Europe)
Call and response in your language is possible.
Contract no.: ECKART29003-NCEC.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

| | |
|---|---|
| Acute toxicity, Category 4 | H302: Harmful if swallowed. |
| Eye irritation, Category 2 | H319: Causes serious eye irritation. |
| Short-term (acute) aquatic hazard, Category 1 | H400: Very toxic to aquatic life. |
| Long-term (chronic) aquatic hazard, Category 1 | H410: Very toxic to aquatic life with long lasting effects. |

### 2.2 Label elements

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

Hazard pictograms :

Signal Word : Warning

| Hazard Statements | : | | |
|---|---|---|---|
| | | H302 | Harmful if swallowed. |
| | | H319 | Causes serious eye irritation. |
| | | H410 | Very toxic to aquatic life with long lasting effects. |

| Precautionary Statements | : | | |
|---|---|---|---|
| | | **Prevention:** | |
| | | P264 | Wash skin thoroughly after handling. |
| | | P273 | Avoid release to the environment. |
| | | P280 | Wear eye protection/ face protection. |
| | | **Response:** | |
| | | P337 + P313 | If eye irritation persists: Get medical advice/ attention. |
| | | P391 | Collect spillage. |
| | | **Disposal:** | |
| | | P501 | Dispose of contents/ container to an approved waste disposal plant. |

**Hazardous ingredients which must be listed on the label:**
Copper

### 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: 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.

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 | ClassificationREGULATION (EC) No 1272/2008 | Concentration (% w/w) |
|---|---|---|---|
| Copper | 7440-50-8 | Acute Tox. 4; H302 | >= 50 - <= 100 |

| | | | |
|---|---|---|---|
| | 231-159-6<br><br>01-2119480154-42 | Acute Tox. 4; H302<br>Eye Irrit. 2; H319<br>Eye Irrit. 2; H319<br>Aquatic Acute 1; H400<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410<br>Aquatic Chronic 1; H410<br>Acute Tox.<br>---<br>M-Factor (Acute aquatic toxicity): 10<br>M-Factor (Chronic aquatic toxicity): | |
| zinc powder — zinc dust (stabilised) | 7440-66-6<br>231-175-3<br>030-001-01-9<br><br>01-2119467174-37 | Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410<br>Aquatic Acute<br>---<br>M-Factor (Acute aquatic toxicity): 1<br>M-Factor (Chronic aquatic toxicity): 1 | >= 20 - < 25 |
| octadecylamine | 124-30-1<br>204-695-3<br>612-282-00-8<br><br>01-2119473804-32 | Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>STOT RE 2; H373 (Liver, Gastrointestinal tract, Immune system)<br>Asp. Tox. 1; H304<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410<br>Skin Irrit.<br>---<br>M-Factor (Acute aquatic toxicity): 10<br>M-Factor (Chronic aquatic toxicity): 10 | >= 0.25 - < 1 |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

General advice : Take the victim into fresh air.

Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

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

Risks : Harmful if swallowed.
Causes serious eye irritation.

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

This information is not available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Special powder against metal fire
Dry sand
ABC powder

Unsuitable extinguishing media : Water
High volume water jet
Carbon dioxide (CO2)

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

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

**5.3 Advice for firefighters**

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.
Evacuate personnel to safe areas.
Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.

**6.2 Environmental precautions**

General advice : The product should not be allowed to enter drains, water courses or the soil.
Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

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

Methods for cleaning up : Use mechanical handling equipment.

Pick up and transfer to properly labeled containers.

Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For personal protection see section 8.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**

Advice on safe handling : Avoid creating dust.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
Avoid formation of respirable particles.

Do not breathe vapors/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : General industrial hygiene practice. Do not smoke. Wash hands before breaks and at the end of workday. Keep away from food and drink. Keep away from tobacco products. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

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

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.

Keep away from sources of ignition - No smoking. Do not store near combustible materials. Keep containers tightly closed in a cool, well-ventilated place. To maintain product quality, do not store in heat or direct sunlight.

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Protect from humidity and water.

Advice on common storage : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Do not store together with oxidizing and self-igniting products.

Dampness : Keep in a dry, cool and well-ventilated place.

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

| Substance name | End Use | Routes of exposure | Potential health effects | Value |
|---|---|---|---|---|
| Copper | Workers | Dermal | Long-term systemic effects | 137 mg/kg |
| | Workers | Dermal | Acute systemic effects | 273 mg/kg |
| | Workers | Inhalation | Long-term systemic effects | 20 mg/m3 |
| | Consumers | Inhalation | Long-term local effects | 1 mg/m3 |
| | Consumers | Inhalation | Acute local effects | 1 mg/m3 |
| | Consumers | Dermal | Long-term systemic effects | 137 mg/kg |
| | Consumers | Dermal | Acute systemic effects | 273 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 0.041 mg/kg |
| zinc powder — zinc dust (stabilised) | Workers | Inhalation | Long-term systemic effects | 5 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 83 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 2.5 mg/m3 |
| | Consumers | Dermal | Long-term systemic effects | 83 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 0.83 mg/kg |
| Fatty acids, C16-18 | Workers | Dermal | Long-term systemic effects | 10 mg/kg |
| | Workers | Inhalation | Long-term systemic effects | 17.632 mg/m3 |
| | Consumers | Oral | Long-term systemic effects | 2.5 mg/kg |
| | Consumers | Dermal | Long-term systemic effects | 5 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 4.348 mg/m3 |

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:**

| Substance name | Environmental Compartment | Value |
|---|---|---|
| Copper | Fresh water | 0.0078 mg/l |
| | Sea water | 0.0052 mg/l |

| | | |
|---|---|---|
| | STP | 0.230 mg/l |
| | Fresh water sediment | 87 mg/kg |
| | Sea sediment | 676 mg/kg |
| | Soil | 65 mg/kg |
| zinc powder — zinc dust (stabilised) | Fresh water | 0.0206 mg/l |
| | Sea water | 0.0061 mg/l |
| | STP | 0.100 mg/l |
| | Fresh water sediment | 235.6 mg/kg |
| | Sea sediment | 121 mg/kg |
| | Soil | 35.6 mg/kg |

### 8.2 Exposure controls

**Personal protective equipment**

Eye/face protection : Safety glasses
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection
Material : Leather

Remarks : Leather gloves The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this has to be observed. Recommended preventive skin protection
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Long sleeved clothing
Safety shoes
Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Use suitable breathing protection if workplace concentration requires.
Respirator with a dust filter
P1 filter

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form : pellets

Color : gold

Odor : characteristic

| | | |
|---|---|---|
| Odor Threshold | : | No data available |
| Melting point/ range | : | 920 - 1,065 °C |
| Boiling point/boiling range | : | Not applicable |
| Flammability | : | No data available |
| 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 | : | substance/mixture is non-soluble (in water) |
| Viscosity, kinematic | : | No data available |
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Vapor pressure | : | No data available |
| Relative density | : | No data available |
| Density | : | 5 - 8.4 g/cm3 |
| Relative vapor density | : | No data available |
| Particle characteristics | | |
| Particle Size Distribution | : | 1 - 15 µm |

**9.2 Other information**

No data available

## SECTION 10: Stability and reactivity

**10.1 Reactivity**

No decomposition if stored and applied as directed.

**10.2 Chemical stability**

No decomposition if stored and applied as directed.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.
No decomposition if stored and applied as directed.

Dust may form explosive mixture in air.

**10.4 Conditions to avoid**

Conditions to avoid : No data available

**10.5 Incompatible materials**

**10.6 Hazardous decomposition products**

This information is not available.

## SECTION 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**

Harmful if swallowed.

**Product:**

Acute oral toxicity :

**Components:**

**Copper:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

**zinc powder — zinc dust (stabilised):**

Acute oral toxicity :
(Rat): > 2,000 mg/kg

Acute inhalation toxicity :
LC50 (Rat): 5.41 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

**Skin corrosion/irritation**
Not classified due to lack of data.

**Product:**
Remarks : May cause skin irritation in susceptible persons.

**Components:**

**octadecylamine:**
Result : Skin irritation

**Serious eye damage/eye irritation**
Causes serious eye irritation.

**Product:**
Remarks : Eye irritation

**Components:**

**Copper:**
Result : Eye irritation

**octadecylamine:**
Result : Irreversible effects on the eye

**Respiratory or skin sensitization**

**Skin sensitization**
Not classified due to lack of data.

**Respiratory sensitization**
Not classified due to lack of data.

**Germ cell mutagenicity**
Not classified due to lack of data.

**Carcinogenicity**
Not classified due to lack of data.

**Reproductive toxicity**
Not classified due to lack of data.

**STOT-single exposure**
Not classified due to lack of data.

**STOT-repeated exposure**
Not classified due to lack of data.

**Components:**

**octadecylamine:**

| | | |
|---|---|---|
| Routes of exposure | : | Ingestion |
| Target Organs | : | Liver, digestive system, Immune system |
| Assessment | : | May cause damage to organs through prolonged or repeated exposure. |

**Aspiration toxicity**

Not classified due to lack of data.

**Components:**

**octadecylamine:**

May be fatal if swallowed and enters airways.

### 11.2 Information on other hazards

**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. |

**Further information**

**Product:**

| | | |
|---|---|---|
| Remarks | : | No data available |

**Components:**

**zinc powder — zinc dust (stabilised):**

| | | |
|---|---|---|
| Remarks | : | No data available |

## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**Copper:**

| | | |
|---|---|---|
| M-Factor (Short-term (acute) aquatic hazard) | : | 10 |
| M-Factor (Long-term (chronic) aquatic hazard) | : | |

**Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**zinc powder — zinc dust (stabilised):**

M-Factor (Short-term (acute) aquatic hazard) : 1

M-Factor (Long-term (chronic) aquatic hazard) : 1

**Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**octadecylamine:**

M-Factor (Short-term (acute) aquatic hazard) : 10

M-Factor (Long-term (chronic) aquatic hazard) : 10

**Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 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 : 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.

### 12.7 Other adverse effects

**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

European Waste Catalog : 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
In accordance with local and national regulations.

## SECTION 14: Transport information

### 14.1 UN number or ID number

**ADR** : UN 3077

**IMDG** : UN 3077

**IATA** : UN 3077

### 14.2 UN proper shipping name

**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Copper metal powder)

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Copper metal powder)

| | | |
|---|---|---|
| **IATA** | : | Environmentally hazardous substance, solid, n.o.s. (Copper metal powder) |

**14.3 Transport hazard class(es)**

| | | Class | Subsidiary risks |
|---|---|---|---|
| **ADR** | : | 9 | |
| **IMDG** | : | 9 | |
| **IATA** | : | 9 | |

**14.4 Packing group**

**ADR**

| | | |
|---|---|---|
| Packing group | : | III |
| Classification Code | : | M7 |
| Hazard Identification Number | : | 90 |
| Labels | : | 9 |
| Tunnel restriction code | : | (-) |

**IMDG**

| | | |
|---|---|---|
| Packing group | : | III |
| Labels | : | 9 |
| EmS Code | : | F-A, S-F |
| Remarks | : | IMDG Code segregation group 7 - Heavy metals and their salts |

**IATA (Cargo)**

| | | |
|---|---|---|
| Packing instruction (cargo aircraft) | : | 956 |
| Packing instruction (LQ) | : | Y956 |
| Packing group | : | III |
| Labels | : | 9 |

**IATA (Passenger)**

| | | |
|---|---|---|
| Packing instruction (passenger aircraft) | : | 956 |
| Packing instruction (LQ) | : | Y956 |
| Packing group | : | III |
| Labels | : | 9 |

**14.5 Environmental hazards**

**ADR**

| | | |
|---|---|---|
| Environmentally hazardous | : | yes |

**IMDG**

| | | |
|---|---|---|
| Marine pollutant | : | yes |

**14.6 Special precautions for user**

| | | |
|---|---|---|
| Remarks | : | For single packagings <=5L / 5 kg, or combination packagings containing inner packagings <= 5L / 5 kg net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 |

IATA-DGR may be applied.

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**

Relevant EU provisions transposed through retained EU law

| | | |
|---|---|---|
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | : | Conditions of restriction for the following entries should be considered:<br><br>Number on list 75:<br>If you intend to use this product as tattoo ink, please contact your vendor. |
| UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation | : | Not applicable |
| The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) | : | Not applicable |
| Regulation (EU) No 2024/590 on substances that deplete the ozone layer | : | Not applicable |
| UK REACH List of substances subject to authorisation (Annex XIV) | : | Not applicable |
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | E1 | ENVIRONMENTAL HAZARDS |

**15.2 Chemical Safety Assessment**

No data available

## SECTION 16: Other information

**Full text of H-Statements**

| | | |
|---|---|---|
| H302 | : | Harmful if swallowed. |

| | | |
|---|---|---|
| H304 | : | May be fatal if swallowed and enters airways. |
| H315 | : | Causes skin irritation. |
| H318 | : | Causes serious eye damage. |
| H319 | : | Causes serious eye irritation. |
| H373 | : | May cause damage to organs through prolonged or repeated exposure. |
| 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 |
| Asp. Tox. | : | Aspiration hazard |
| Eye Dam. | : | Serious eye damage |
| Eye Irrit. | : | Eye irritation |
| Skin Irrit. | : | Skin irritation |
| STOT RE | : | Specific target organ toxicity - repeated exposure |

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 Standardization; 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 Harmonized 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 Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; 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 - Organization 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, Authorization and Restriction of Chemicals; RID - Regulations 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**

| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Acute Tox. 4 | H302 | Calculation method |
| Eye Irrit. 2 | H319 | Calculation method |
| Aquatic Acute 1 | H400 | Calculation method |
| Aquatic Chronic 1 | H410 | Calculation method |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN