# Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

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

### 1.1. Product identifier

Code: **P10470**
Product name **ResinFIP EPOBOND F 140 COMP. B**

UFI : **6171-509V-400R-QEVT**

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

Intended use **Hardening for epoxy resin**

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

Name **Licata S.p.A.**
Full address **Via dei Mille 32**
District and Country **00185 Roma (RM)**
**Italia**
**Tel. +39 0922 856088**
**Fax +39 0922 831427**

e-mail address of the competent person responsible for the Safety Data Sheet **controllo-qualita@licataspa.it**

### 1.4. Emergency telephone number

For urgent inquiries refer to **NHS111in England: 111**
**NHS24in Scotland: 111**
**NHS Direct in Wales: 111 or 0845 4647**
**In an emergency, if the patient has collapsed or is not breathing properly, call 999**

## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

| | | |
|---|---|---|
| Acute toxicity, category 4 | H302 | Harmful if swallowed. |
| Skin corrosion, category 1B | H314 | Causes severe skin burns and eye damage. |
| Serious eye damage, category 1 | H318 | Causes serious eye damage. |
| Skin sensitization, category 1 | H317 | May cause an allergic skin reaction. |
| Hazardous to the aquatic environment, chronic toxicity, category 3 | H412 | Harmful to aquatic life with long lasting effects. |

### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal word: Danger

## SECTION 2. Hazards identification ... / >>

Hazard statements:

| | |
|---|---|
| **H302** | Harmful if swallowed. |
| **H314** | Causes severe skin burns and eye damage. |
| **H317** | May cause an allergic skin reaction. |
| **H412** | Harmful to aquatic life with long lasting effects. |

Precautionary statements:

| | |
|---|---|
| **P260** | Do not breathe dust / fume / gas / mist / vapours / spray. |
| **P305+P351+P338** | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| **P303+P361+P353** | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| **P280** | Wear protective gloves/ protective clothing / eye protection / face protection. |
| **P310** | Immediately call a POISON CENTER/doctor. |
| **P264** | Wash your hands thoroughly after use. |

**Contains:** 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINA
BENZYL ALCOHOL

### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

| Identification | | x = Conc. % | Classification (EC) 1272/2008 (CLP) |
|---|---|---|---|
| **3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINA** | | | |
| *INDEX* | *612-067-00-9* | 74 ≤ x < 78 | **Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Chronic 3 H412** |
| *EC* | *220-666-8* | | **Skin Sens. 1A H317: ≥ 0,001%** |
| *CAS* | *2855-13-2* | | **LD50 Oral: 1030 mg/kg** |
| *REACH Reg.* | *01-2119514687-32-XXXX* | | |
| **BENZYL ALCOHOL** | | | |
| *INDEX* | *603-057-00-5* | 24 ≤ x < 25,5 | **Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Sens. 1B H317** |
| *EC* | *202-859-9* | | **LD50 Oral: 1620 mg/kg, ATE Inhalation vapours: 11 mg/l** |
| *CAS* | *100-51-6* | | |
| *REACH Reg.* | *01-2119492630-38-XXXX* | | |

The full wording of hazard (H) phrases is given in section 16 of the sheet.

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

In case of doubt or in the presence of symptoms contact a doctor and show him this document.
In case of more severe symptoms, ask for immediate medical aid.
EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.
INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Rinse your mouth with running water. Do not give anything by mouth to an unconscious person. Get medical advice/attention.
INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal

**SECTION 4. First aid measures** ... / >>

protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

**4.2. Most important symptoms and effects, both acute and delayed**

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

**4.3. Indication of any immediate medical attention and special treatment needed**

Immediately call a POISON CENTER/doctor.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

## SECTION 5. Firefighting measures

**5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

**5.2. Special hazards arising from the substance or mixture**

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

**5.3. Advice for firefighters**

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## SECTION 6. Accidental release measures

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

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory references:

| | | |
|---|---|---|
| DEU | Deutschland | WirkungDosisNOAELMAK-und BAT-Werte-Liste 2024 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe |

**BENZYL ALCOHOL**

**Threshold Limit Value**

| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
|---|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| AGW | DEU | 22 | 5 | 44 | 10 | SKIN |
| MAK | DEU | 22 | 5 | 44 | 10 | SKIN |

**Predicted no-effect concentration - PNEC**

| | | |
|---|---|---|
| Normal value in fresh water | 1 | mg/l |
| Normal value in marine water | 0,1 | mg/l |
| Normal value for fresh water sediment | 5,27 | mg/kg/d |
| Normal value for marine water sediment | 0,527 | mg/kg/d |
| Normal value of STP microorganisms | 39 | mg/l |
| Normal value for the terrestrial compartment | 0,456 | mg/kg |

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | 20 mg/kg bw/d | | 4 mg/kg bw/d | | | | |
| Inhalation | | 27 mg/m3 | | 5,4 mg/m3 | | 110 mg/m3 | | 22 mg/m3 |
| Skin | | 20 mg/kg bw/d | | 4 mg/kg bw/d | | 40 mg/kg bw/d | | 8 mg/kg bw/d |

**3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINA**

**Predicted no-effect concentration - PNEC**

| | | |
|---|---|---|
| Normal value in fresh water | 0,06 | mg/l |
| Normal value in marine water | 0,006 | mg/l |
| Normal value for fresh water sediment | 5,784 | mg/kg |
| Normal value for marine water sediment | 0,578 | mg/kg |
| Normal value for the terrestrial compartment | 1,121 | mg/kg |

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is

## SECTION 8. Exposure controls/personal protection ... / >>

well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344/ISO 13034).
Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN ISO 16321).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| Properties | | Value | | Information |
|---|---|---|---|---|
| Appearance | | liquid | | |
| Colour | | colourless | | |
| Odour | | amine | | |
| Melting point / freezing point | < | 0 | °C | |
| Initial boiling point | | not available | | |
| Flammability | | not available | | |
| Lower explosive limit | | not available | | |
| Upper explosive limit | | not available | | |
| Flash point | | not available | | |
| Auto-ignition temperature | | not available | | |
| Decomposition temperature | | not available | | |
| pH | | 11,4 | | |
| Kinematic viscosity | | not available | | |
| Dynamic viscosity | | 250 cPs a 23°C | | |
| Solubility | | partially soluble in water | | |
| Partition coefficient: n-octanol/water | | not available | | |
| Vapour pressure | | 0,02 | mbar | |
| Density and/or relative density | | 0,96 | | Remark:Fluido |
| Relative vapour density | | not available | | |
| Particle characteristics | | not applicable | | |

### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

## SECTION 10. Stability and reactivity

**10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINA
May react dangerously with: strong oxidising agents,concentrated inorganic acids.

**10.4. Conditions to avoid**

None in particular. However the usual precautions used for chemical products should be respected.

**10.5. Incompatible materials**

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINA
Incompatible with: strong acids,strong oxidants.

**10.6. Hazardous decomposition products**

Information not available

## SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

| | |
|---|---|
| ATE (Inhalation - vapours) of the mixture: | > 20 mg/l |
| ATE (Oral) of the mixture: | 1093,27 mg/kg |
| ATE (Dermal) of the mixture: | Not classified (no significant component) |

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINA

| | |
|---|---|
| LD50 (Dermal): | > 2000 mg/kg Rat |
| LD50 (Oral): | 1030 mg/kg Rat |
| LC50 (Inhalation mists/powders): | > 5,01 mg/l/4h Rat |

BENZYL ALCOHOL

| | |
|---|---|
| LD50 (Dermal): | 2000 mg/kg Rabbit |
| LD50 (Oral): | 1620 mg/kg Rat |

## SECTION 11. Toxicological information ... / >>

| | |
|---|---|
| LC50 (Inhalation vapours): | > 4,178 mg/l/4h Rat |
| ATE (Inhalation vapours): | 11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture) |

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**11.2. Information on other hazards**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

## SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it has negative effects on the aquatic environment.

**12.1. Toxicity**

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINA

| | |
|---|---|
| LC50 - for Fish | 110 mg/l/96h |
| EC50 - for Crustacea | 23 mg/l/48h |
| EC50 - for Algae / Aquatic Plants | > 50 mg/l/72h |
| Chronic NOEC for Crustacea | 3 mg/l |

BENZYL ALCOHOL

| | |
|---|---|
| LC50 - for Fish | 100 mg/l/96h |
| EC50 - for Crustacea | 230 mg/l/48h |
| EC50 - for Algae / Aquatic Plants | 759 mg/l/72h |
| EC10 for Algae / Aquatic Plants | 566 mg/l/72h |
| Chronic NOEC for Crustacea | 51 mg/l |

**12.2. Persistence and degradability**

## SECTION 12. Ecological information ... / >>

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINA
NOT rapidly degradable

BENZYL ALCOHOL
Rapidly degradable 92%

### 12.3. Bioaccumulative potential

BENZYL ALCOHOL
Partition coefficient: n-octanol/water 1,1
BCF 1,37

### 12.4. Mobility in soil

BENZYL ALCOHOL
Partition coefficient: soil/water 15,7 l/kg

### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

### 12.7. Other adverse effects

Information not available

## SECTION 13. Disposal considerations

### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

Directive 2008/98/EC (waste)
For the disposal of waste from this material, the hazard characteristics shall be assessed in accordance with Directive 2008/98/EC. Any transboundary shipment must comply with Regulation (EU) 2024/1157.

## SECTION 14. Transport information

### 14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 2289

### 14.2. UN proper shipping name

ADR / RID: ISOPHORONEDIAMINE IN SOLUZIONE
IMDG: ISOPHORONEDIAMINE SOLUTION
IATA: ISOPHORONEDIAMINE SOLUTION

## SECTION 14. Transport information ... / >>

### 14.3. Transport hazard class(es)

| | | | |
|---|---|---|---|
| ADR / RID: | Class: 8 | Label: 8 |  |
| IMDG: | Class: 8 | Label: 8 |  |
| IATA: | Class: 8 | Label: 8 |  |

### 14.4. Packing group

ADR / RID, IMDG, IATA: III

### 14.5. Environmental hazards

ADR / RID: NO
IMDG: not marine pollutant
IATA: NO

### 14.6. Special precautions for user

| | | | |
|---|---|---|---|
| ADR / RID: | HIN - Kemler: 80<br>Special provision: - | Limited Quantities: 5 lt | Tunnel restriction code: (E) |
| IMDG: | EMS: F-A, S-B | Limited Quantities: 5 lt | |
| IATA: | Cargo: | Maximum quantity: 60 L | Packaging instructions: 856 |
| | Passengers: | Maximum quantity: 5 L | Packaging instructions: 852 |
| | Special provision: | A803 | |

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

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3
Contained substance
Point 75

Notification Art. 45 CLP
The mixture may not have been notified in all EU Member States. In the event of resale in a country other than the one in which it was purchased, contact the supplier to verify any applicable obligations.

Regulation (EU) 2024/590 - Ozone-depleting substances
None

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

## SECTION 15. Regulatory information ... / >>

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Regulation (EU) 2019/1021 - on persistent organic pollutants
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

**15.2. Chemical safety assessment**

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

| | |
|---|---|
| **Acute Tox. 4** | Acute toxicity, category 4 |
| **Skin Corr. 1B** | Skin corrosion, category 1B |
| **Skin Corr. 1C** | Skin corrosion, category 1C |
| **Skin Corr. 1** | Skin corrosion, category 1 |
| **Eye Dam. 1** | Serious eye damage, category 1 |
| **Eye Irrit. 2** | Eye irritation, category 2 |
| **Skin Irrit. 2** | Skin irritation, category 2 |
| **Skin Sens. 1** | Skin sensitization, category 1 |
| **Skin Sens. 1A** | Skin sensitization, category 1A |
| **Skin Sens. 1B** | Skin sensitization, category 1B |
| **Aquatic Chronic 3** | Hazardous to the aquatic environment, chronic toxicity, category 3 |
| **H302** | Harmful if swallowed. |
| **H332** | Harmful if inhaled. |
| **H314** | Causes severe skin burns and eye damage. |
| **H318** | Causes serious eye damage. |
| **H319** | Causes serious eye irritation. |
| **H315** | Causes skin irritation. |
| **H317** | May cause an allergic skin reaction. |
| **H412** | Harmful to aquatic life with long lasting effects. |

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

**SECTION 16. Other information** ... / >>

- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707
24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI Atp. CLP)
27. Delegated Regulation (UE) 2024/2564 (XXII Atp. CLP)
28. Regulation (EU) 2024/2865
29. Delegated Regulation (UE) 2025/1222 (XXIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
09.