# Safety data sheet

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

1.1. Product identifier

| | |
|---|---|
| Code: | VIE433999S |
| Product name | GRANIPLAST 25 |

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

| Identified Uses | Industrial | Professional | Consumer |
|---|---|---|---|
| | - | - ✓ | - ✓ |

1.3. Details of the supplier of the safety data sheet

| | |
|---|---|
| Name | CROMOLOGY ITALIA S.p.A. |
| Full address | Sede Legale:Via IV Novembre, 4 |
| District and Country | 55016 Porcari LU<br>ITALY |
| | Tel. 199119955 (+39)05832424 |
| | Fax 199119977 |
| e-mail address of the competent person responsible for the Safety Data Sheet | info-sds@cromology.it |
| Product distribution by | CROMOLOGY ITALIA S.p.A. |

1.4. Emergency telephone number

| | |
|---|---|
| For urgent inquiries refer to | Numeri telefonici dei principali Centri Antiveleni italiani (attivi 24/24 ore): Centro Antiveleni di Pavia 0382 24444 (CAV IRCCS Fondazione Maugeri - Pavia); Centro Antiveleni di Milano 02 66101029 (CAV Ospedale Niguarda Ca` Granda - Milano); Centro Antiveleni di Bergamo 800 883300 (CAV Ospedali Riuniti - Bergamo); Centro Antiveleni di Firenze 055 7947819 (CAV Ospedale Careggi - Firenze); Centro Antiveleni di Roma 06 3054343 (CAV Policlinico Gemelli - Roma); Centro Antiveleni di Roma 06 49978000 (CAV Policlinico Umberto I - Roma); Centro Antiveleni di Roma 06 68593726 (CAV Osp. Pediatrico Bambino Gesù- Roma); Centro Antiveleni di Foggia 0881 732326 (Azienda Ospedaliero Universitaria di Foggia); Centro Antiveleni di Napoli 081 7472870 (CAV Ospedale Cardarelli - Napoli).<br><br>Per ulteriori informazioni: CROMOLOGY Italia SpA 199119955 (+39)05832424 from Monday to Friday 9:30-12:30 14:00-17:30. |

## 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 EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments

Hazard classification and indication:
Aquatic Chronic 3 H412

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Warning symbols: None

Hazard sentences (R): None

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

2.2. Label elements

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

Hazard pictograms: --

Signal words: --

Hazard statements:

| | |
|---|---|
| **H412** | Harmful to aquatic life with long lasting effects. |
| **EUH208** | Contains:<br>1,2-BENZOISOTIAZOL-3(2H)-ONE<br>2-METIL-2H-ISOTIAZOL-3-ONE<br>2-TERT-BUTYLAMINO-4-ETHYLAMINO-6-METHYLTHIO-1,3,5-TRIAZINE;<br>2-OTTIL-2H-ISOTIAZOL-3-ONE<br>mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one. [EC no. 220-239-6] (3:1)<br>May produce an allergic reaction |

Precautionary statements:

| | |
|---|---|
| **P101** | If medical advice is needed, have product container or label at hand. |
| **P102** | Keep out of reach of children. |
| **P103** | Read label before use. |
| **P273** | Avoid release to the environment. |
| **P501** | Dispose of contents/container in compliance with local regulation. |

2.3. Other hazards

Questo prodotto contiene le seguenti sostanze attive biocida per la protezione del film secco: 2-ottil-2H-isotiazol-3-one CAS N. 26530-20-1, Terbutrina CAS N. 886-50-0, zinco piritione CAS N: 13463-41-7.

## SECTION 3. Composition/information on ingredients

**3.1. Substances**

Information not relevant

**3.2. Mixtures**

**Contains:**

| Identification | | Conc. % | Classification 67/548/EEC | Classification 1272/2008 (CLP) |
|---|---|---|---|---|
| **mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one. [EC no. 220-239-6] (3:1)** | | | | |
| *CAS* | *55965-84-9* | 0,00 - 0,0015 | C R34, N R50/53, T R23/24/25, Xi R43 | Acute Tox. 2 H330, Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Corr. 1B H314, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10 |
| *INDEX* | *613-167-00-5* | | | |
| **2-OTTIL-2H-ISOTIAZOL-3-ONE** | | | | |
| *CAS* | *26530-20-1* | 0,00 - 0,025 | C R34, N R50/53, T R23/24, Xi R43, Xn R22 | Acute Tox. 3 H311, Acute Tox. 3 H331, Acute Tox. 4 H302, Skin Corr. 1B H314, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10 |
| *EC* | *247-761-7* | | | |
| *INDEX* | *613-112-00-5* | | | |
| **2-(2-BUTOXYETHOXY)ETHANOL** | | | | |
| *CAS* | *112-34-5* | 0,00 - 0,7 | Xi R36 | Eye Irrit. 2 H319 |
| *EC* | *203-961-6* | | | |
| *INDEX* | *603-096-00-8* | | | |
| *Reg. no.* | *01-2119475104-44-XXXX* | | | |
| **ZINC PYRITHIONE** | | | | |
| *CAS* | *13463-41-7* | 0,00 - 0,1 | N R50, Xi R41, Xn R20/22 | Acute Tox. 3 H301, Acute Tox. 4 H332, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10 |
| *EC* | *236-671-3* | | | |
| *Reg. no.* | *01-2119511196-46-XXXX* | | | |
| **2-TERT-BUTYLAMINO-4-ETHYLAMINO-6-METHYLTHIO-1,3,5-TRIAZINE;** | | | | |
| *CAS* | *886-50-0* | 0,00 - 0,0025 | N R50/53, Xi R43, Xn R22 | Acute Tox. 4 H302, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=100 |
| *EC* | *212-950-5* | | | |
| **1,2-BENZOISOTIAZOL-3(2H)-ONE** | | | | |
| *CAS* | *2634-33-5* | 0,00 - 0,025 | N R50, Xi R38, Xi R41, Xi R43, Xn R22 | Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=10 |
| *EC* | *220-120-9* | | | |
| *INDEX* | *613-088-00-6* | | | |

C= CORROSIVE,N= DANGEROUS FOR THE ENVIRONMENT,T= TOXIC,Xi= IRRITANT,Xn= HARMFUL

Note: Upper limit is not included into the range

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

## SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

4.3. Indication of any immediate medical attention and special treatment needed
Information not available

## 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. Check incompatibility for container material in section 7. 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.

## SECTION 7. Handling and storage ... / >>

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:

| | |
|---|---|
| United Kingdom | EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). |
| Éire | Code of Practice Chemical Agent Regulations 2011. |
| OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| TLV-ACGIH | ACGIH 2012 |

**2-(2-BUTOXYETHOXY)ETHANOL**

**Threshold Limit Value**

| Type | Country | TWA/8h | | STEL/15min | |
|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm |
| OEL | EU | 67,5 | 10 | 101,2 | 15 |

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category I (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in latex, PVC or equivalent. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable.
Gloves` limit depends on the duration of exposure.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN ISO 20344). Wash body with soap and water after removing overalls.
RESPIRATORY PROTECTION
If the threshold value (if available) for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company`s prevention and protection service is exceeded, wear a mask with an B or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use (ref. standard EN 14387).
The use of respiratory tract protection equipment, such as masks like that indicated above, is necessary to reduce worker exposure in the absence of technical measures. The protection provided by masks is in any case limited.
If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh

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

air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).
EYE PROTECTION
Use of protective airtight goggles (ref. standard EN 166) recommended.

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Appearance | Liquid |
| Colour | Various colours |
| Odour | Characteristic, light |
| Odour threshold | Not available |
| pH | 8,5 |
| Melting point / freezing point | Not available |
| Initial boiling point | > 100 °C |
| Boiling range | Not available |
| Flash point | > 60 °C |
| Evaporation Rate | Not available |
| Flammability (solid, gas) | Not available |
| Lower inflammability limit | Not available |
| Upper inflammability limit | Not available |
| Lower explosive limit | Not available |
| Upper explosive limit | Not available |
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | 1,100 kg/l 20°C |
| Solubility | Dispersible in water. |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| Viscosity | Not available |
| Explosive properties | Not available |
| Oxidising properties | Not available |

9.2. Other information

| | | |
|---|---|---|
| VOC (Directive 2004/42/EC) : | 100,00 | g/litre |

## 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.
2-(2-BUTOXYETHOXY)ETHANOL: can react with oxidising agents. It forms peroxides with atmospheric oxygen.
When it reacts with aluminium is can generate hydrogen. May form explosive mixtures with air.

10.4. Conditions to avoid
None in particular. However the usual precautions used for chemical products should be respected.
2-(2-BUTOXYETHOXY)ETHANOL: avoid contact with the air.

## SECTION 10. Stability and reactivity ... / >>

10.5. Incompatible materials
2-(2-BUTOXYETHOXY)ETHANOL: oxidising substances, strong acids and alkaline metals.

10.6. Hazardous decomposition products
2-(2-BUTOXYETHOXY)ETHANOL: hydrogen.

## SECTION 11. Toxicological information

11.1. Information on toxicological effects
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.

This product contains sensitizing substance/s and may cause allergic reactions.

2-(2-BUTOXYETHOXY)ETHANOL: can be absorbed by inhalation, ingestion and skin contact; it is irritant to the skin and especially to the eyes; spleen damage may occur. Inhalation is unlikely to occur at room temperature due to the low vapour tension of the substance.

2-(2-BUTOXYETHOXY)ETHANOL

| | |
|---|---|
| LD50 (Oral) | 3.384 mg/kg Rat |
| LD50 (Dermal) | 2.700 mg/kg Rabbit |

## SECTION 12. Ecological information

12.1. Toxicity

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

1,2-BENZOISOTIAZOL-3(2H)-ONE

| | |
|---|---|
| LC50 - for Fish | 1,6 mg/l Oncorhynchus mykiss |
| EC50 - for Crustacea | 2,94 mg/l Daphnia magna |
| EC50 - for Algae / Aquatic Plants | 0,11 mg/l Selenastrum capricornutum |

2-TERT-BUTYLAMINO-4-ETHYLAMINO-6-METHYLTHIO-1,3,5-TRIAZINE;

| | |
|---|---|
| LC50 - for Fish | 1,8 mg/l Rasbora heteromorpha |
| EC50 - for Crustacea | 7,1 mg/l Dafnia magna |
| EC50 - for Algae / Aquatic Plants | 0,0055 mg/l Selenastrum capricornutum |

ZINC PYRITHIONE

| | |
|---|---|
| LC50 - for Fish | 0,15 mg/l Oncorhynchus mykiss |
| EC50 - for Crustacea | 0,05 mg/l Dafnia magnia |
| EC50 - for Algae / Aquatic Plants | 0,067 mg/l Selenastrum capricornutum |

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

2-OTTIL-2H-ISOTIAZOL-3-ONE

| | |
|---|---|
| LC50 - for Fish | 0,03 mg/l Oncorhynchus mykiss |
| EC50 - for Crustacea | 0,1 mg/l Dafnia magna |
| EC50 - for Algae / Aquatic Plants | 0,084 mg/l Scenedesmus subspicatus |

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one. [EC no. 220-239-6] (3:1)

| | |
|---|---|
| LC50 - for Fish | 0,22 mg/l Oncorhynchus mykiss |
| EC50 - for Crustacea | 0,12 mg/l Dafnia magna |
| EC50 - for Algae / Aquatic Plants | 0,048 mg/l Pseudokirchnereilla subcapitata |

12.2. Persistence and degradability

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one. [EC no. 220-239-6] (3:1)

Rapidly biodegradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

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 greater than 0,1%.

12.6. Other adverse effects

Information not available

## SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Avoid littering. Do not contaminate soil, sewers and waterways.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

## SECTION 15. Regulatory information

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

Seveso category

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

None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3

Substances in Candidate List (Art. 59 REACH)

None

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

--

VOC (Directive 2004/42/EC) :

Multicoloured coatings.
VOC given in g/litre of product in a ready-to-use condition :
Limit value: 100 (2010)
VOC of product : 100,00

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

## SECTION 16. Other information

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

| | |
|---|---|
| **Acute Tox. 2** | Acute toxicity, category 2 |
| **Acute Tox. 3** | Acute toxicity, category 3 |
| **Acute Tox. 4** | Acute toxicity, category 4 |
| **Skin Corr. 1B** | Skin corrosion, category 1B |
| **Eye Dam. 1** | Serious eye damage, category 1 |
| **Eye Irrit. 2** | Eye irritation, category 2 |
| **Skin Irrit. 2** | Skin irritation, category 2 |
| **Skin Sens. 1A** | Skin sensitization, category 1A |
| **Aquatic Acute 1** | Hazardous to the aquatic environment, acute toxicity, category 1 |
| **Aquatic Chronic 1** | Hazardous to the aquatic environment, chronic toxicity, category 1 |
| **Aquatic Chronic 3** | Hazardous to the aquatic environment, chronic toxicity, category 3 |
| **H330** | Fatal if inhaled. |
| **H301** | Toxic if swallowed. |
| **H311** | Toxic in contact with skin. |
| **H331** | Toxic if inhaled. |
| **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. |

## SECTION 16. Other information ... / >>

| | |
|---|---|
| **H315** | Causes skin irritation. |
| **H317** | May cause an allergic skin reaction. |
| **H400** | Very toxic to aquatic life. |
| **H410** | Very toxic to aquatic life with long lasting effects. |
| **H412** | Harmful to aquatic life with long lasting effects. |

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

| | |
|---|---|
| **R20/22** | HARMFUL BY INHALATION AND IF SWALLOWED. |
| **R22** | HARMFUL IF SWALLOWED. |
| **R23/24** | TOXIC BY INHALATION AND IN CONTACT WITH SKIN. |
| **R23/24/25** | TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. |
| **R34** | CAUSES BURNS. |
| **R36** | IRRITATING TO EYES. |
| **R38** | IRRITATING TO SKIN. |
| **R41** | RISK OF SERIOUS DAMAGE TO EYES. |
| **R43** | MAY CAUSE SENSITISATION BY SKIN CONTACT. |
| **R50** | VERY TOXIC TO AQUATIC ORGANISMS. |
| **R50/53** | VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. |

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 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.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Directive 1999/45/EC and following amendments

## SECTION 16. Other information ... / >>

2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

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.