

# Safety Data Sheet edelPro Color Violet

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

### 1.1. Product identification

Name: edelPro Color Violet

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

VOC free, polyfunctional colorant suitable for water-based products for industry, decorative and wood

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

edelundstein GmbH  
Einsteinstraße 12  
D-33104 Paderborn  
www.edel-und-stein.com  
info@edel-und-stein.com

### 1.4. Emergency telephone number:

05254/9330731

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture:

EC regulation criteria 1272/2008 (CLP):

Skin Sens. 1, **H317** May cause an allergic skin reaction

Adverse physicochemical, human health and environmental effects: No other hazards

### 2.2. Label elements

Symbols:



Warning Hazard statements:

H317 May cause an allergic skin reaction

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P280 Wear protective gloves/clothing and eye/face protection.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

EUH208 Contains 2-octyl-2H-isothiazol-3-one. May produce an allergic reaction.  
 EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.  
 EUH208 Contains reaction mass of 5-chloro-2-methyl-2H-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

Contains:

2-methyl-2H-isothiazol-3-one

Special provisions according to Annex XVII of REACH and subsequent amendments:  
 None

### 2.3. Other hazards

1195.P00130/6

vPvB Substances: None - PBT Substances: None

Other Hazards: No other hazards

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances.

Not applicable.

### 3.2. Mixtures.

Hazardous components within the meaning of the CLP regulation and related classification:

$\geq 0.5\%$  -  $< 1\%$  1-methoxy-2-propanol; propylene glycol mono methyl ether, REACH No.: 01-2119457435-35-XXXX, Index Number: 603-064-00-3, CAS: 107-98-2, EC: 203-539-1

Flam. Liq. 3	H226	Flammable liquid and vapour.
STOT SE 3	H336	May cause drowsiness or dizziness.

#### 200 ppm **2-ottil-2H-isothiazol-3-one**

Index number: 613-112-00-5, CAS: 26530-20-1, EC: 247-761-7

Skin Corr. 1B	H314	Causes severe skin burns and eye damage.
Skin Sens. 1,1A,1B	H317	May cause an allergic skin reaction.
Aquatic Acute 1	H400	Very toxic to aquatic life. M=10.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects. M=1.
Acute Tox. 3	H311	Toxic in contact with skin.
Acute Tox. 3	H331	Toxic if inhaled.
Acute Tox. 4	H302	Harmful if swallowed.

#### 187 ppm **1,2-diclorobenzene; o-diclorobenzolo**

REACH No.: 01-2119451167-40-XXXX, Index Number: 602-034-00-7, CAS: 95-50-1, EC: 202-425-9

Acute Tox. 4	H332	Harmful if inhaled.
Acute Tox. 4	H302	Harmful if swallowed.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation
Skin Sens. 1B	H317	May cause an allergic skin reaction.
STOT SE 3	H335	May cause respiratory irritation.
Aquatic Acute 1	H400	Very toxic to aquatic life. M=1.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects. M=1.

#### 81 ppm **1,2-benzisotiazol-3(2H)-one**

REACH No.: 01-2120761540-60-XXXX, Index Number: 613-088-00-6, CAS: 2634-33-5, EC: 220-120-9

Skin Irrit. 2	H315	Causes skin irritation.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.
Eye Dam. 1	H318	Causes serious eye damage.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Aquatic Acute 1	H400	Very toxic to aquatic life.

Acute Tox. 4                      H302                      Harmful if swallowed.

**74 ppm 2-metil-2H-isotiazol-3-one**

REACH No.: 01-2120764690-50-XXXX, CAS: 2682-20-4, EC: 220-239-6

Acute Tox. 2	H330	Fatal if inhaled.
Acute Tox. 3	H311	Toxic in contact with skin.
Acute Tox. 3	H301	Toxic if swallowed.
Skin Corr. 1B	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
Skin Sens. 1A	H317	May cause an allergic skin reaction.
Aquatic Acute 1	H400	Very toxic to aquatic life. M=10.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects. M=1.
	EUH071	Corrosive to the respiratory tract.

**15 ppm                      reaction mass of 5-chloro-2-methyl-2H-isothiazolin-3-one; and 2- methyl-2H-isothiazol-3-one (3:1).**

Numero Index: 613-167-00-5, CAS: 55965-84-9

Acute Tox. 2	H330	Fatal if inhaled.
Acute Tox. 2	H310	Fatal in contact with skin.
Acute Tox. 3	H301	Toxic if swallowed.
Skin Corr. 1C	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
Skin Sens. 1A	H317	May cause an allergic skin reaction.
Aquatic Acute 1	H400	Very toxic to aquatic life. M=100
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects. M=100.
	EUH071	Corrosive to the respiratory tract.

The full text of H-phrases is shown in section 16.

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Wash thoroughly the body (shower or bath). Remove contaminated clothing immediately and dispose off safely. In case of eyes contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion: Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY. In case of Inhalation: Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment: None

### **5. FIREFIGHTING MEASURES**

#### **5.1. Extinguishing media:**

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons: None in particular.

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

Do not inhale explosion and combustion gases. Burning produces heavy smoke.

#### **5.3. Advice for firefighters:**

Use suitable breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

### **6. ACCIDENTAL RELEASE MEASURES**

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

Wear personal protection equipment. Remove all sources of ignition. Remove persons to safety. See protective measures under point 7 and 8.

#### **6.2. Environmental precautions:**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Suitable material for taking up: absorbing material, organic, sand..

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

Wash with plenty of water.

### **6.4. Reference to other sections:**

See also sections 8 and 13.

## **7. HANDLING AND STORAGE**

### **7.1. Precautions for safe handling:**

Avoid contact with skin and eyes, inhalation of vapours and mists. Don't use empty container before they have been cleaned. Before making transfer operations, assure that there aren't any incompatible material residuals in the containers. Contaminated clothing should be changed before entering eating areas. Do not eat or drink while working. See also section 8 for recommended protective equipment.

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

Keep away from food, drink and feed. Incompatible materials: None in particular. Instructions as regards storage premises: Adequately ventilated premises.

### **7.3. Specific end use(s):**

None in particular.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1. Control parameters:**

1-methoxy-2-propanol; propylene glycol mono methyl ether - CAS: 107-98-2

UE - TWA(8h): 375 mg/m<sup>3</sup>, 100 ppm - STEL: 563 mg/m<sup>3</sup>, 150 ppm - Note: Skin

MAK - TWA(8h): 187 mg/m<sup>3</sup>, 50 ppm - STEL(15min): 187 mg/m<sup>3</sup>, 50 ppm - Note: AT AUSTRIA

ACGIH - TWA(8h): 50 ppm - STEL: 100 ppm - Note: A4 - Eye and URT irr

TLV - TWA(8h): 270 mg/m<sup>3</sup> - STEL(15min): 550 mg/m<sup>3</sup> - Note: CZ – CZECH REP.

MAK - TWA(8h): 370 mg/m<sup>3</sup>, 100 ppm - STEL(15min): 740 mg/m<sup>3</sup>, 200 ppm - Note: DE - GERMANY

VLEP - TWA(8h): 188 mg/m<sup>3</sup>, 50 ppm - STEL(15min): 375 mg/m<sup>3</sup>, 10 ppm - Note: FR FRANCE

GVI - TWA(8h): 375 mg/m<sup>3</sup>, 100 ppm - STEL: 568 mg/m<sup>3</sup>, 150 ppm - Note: HR CROATIA: K (Skin)

### **DNEL Exposure Limit Values**

**1-methoxy-2-propanol; propylene glycol mono methyl ether - CAS: 107-98-2**

Consumer: 33 mg/kg p.c./day - Exposure: Human Oral - Frequency: Long Term, systemic effects

Industrial worker: 369 mg/m<sup>3</sup> – Professional worker: 369 mg/m<sup>3</sup> - Consumer: 43.9 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Industrial worker: 183 mg/kg p.c./day - Professional worker: 183 mg/kg p.c./day - Consumer: 78 mg/kg p.c./day - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Industrial worker: 553.5 mg/m<sup>3</sup> - Professional worker: 553.5 mg/m<sup>3</sup> –Exposure: Human Inhalation - Frequency: Short Time, systemic effects

Industrial worker: 553.5 mg/m<sup>3</sup> - Professional worker: 553.5 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Time, local effects

**Concentration expected to not have effects on the environment - PNEC**

**1-methoxy-2-propanol; propylene glycol mono methyl ether - CAS: 107-98-2**

Reference value in freshwater: 10 mg/l

Reference value for sediments in freshwater: 52.3 mg/kg

Reference value for sediments in salt water: 5.2 mg/kg

Reference value for STP micro-organisms: 100 mg/l

Reference value for the land compartment: 4.59 mg/kg

**8.2. Exposure controls:**

**EYE PROTECTION:**

Use close fitting safety goggles, don't use eye lens.

**Protection for skin:**

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

**Protection for hands:**

Protect hands with category III work gloves (see standard EN 374). The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. 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.

**RESPIRATORY PROTECTION:**

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN

14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required (DIN EN 141). 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. Not needed for normal use.

#### THERMAL HAZARDS:

None

#### ENVIRONMENTAL EXPOSURE CONTROLS:

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

#### APPROPRIATE ENGINEERING CONTROLS:

None

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance and Colour	Liquid, violet
Odour	characteristic
Odour threshold.	Not available.
pH.	8,5
Melting point / freezing point.	Not relevant.
Initial boiling point and boiling range	> 100 °C.
Flash point.	> 93 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not relevant.
Upper / Lower flammability or explosive limit.	Not relevant.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1.100 g/cm <sup>3</sup> – 20°C
Solubility in Water	soluble
Solubility in oil:	Not available
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not relevant.
Decomposition temperature.	Not available.
Viscosity	300 – 800 mPA A3-V20
Explosive properties	Not relevant.
Oxidising properties	Not available.

### 9.2. Other information

Miscibility:	Not available
Fat Solubility:	Not available
Conductivity:	Not available
Substance Groups relevant properties:	Not available



## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity.

Stable under normal conditions

### 10.2. Chemical stability.

Stable under normal conditions

### 10.3. Possibility of hazardous reactions.

None

### 10.4. Conditions to avoid.

Stable under normal conditions

### 10.5. Incompatible materials.

None in particular

### 10.6. Hazardous decomposition products.

None

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects:

Toxicological information of the mixture:

#### ACUTE TOXICITY:

It does not meet the classification criteria for this hazard class.

#### SKIN CORROSION / SKIN IRRITATION

It does not meet the classification criteria for this hazard class.

#### SEVERE EYE DAMAGE / EYE IRRITATION

It does not meet the classification criteria for this hazard class.

#### RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction. Skin Sens. 1A H317

#### GERM CELLS MUTAGENICITY

It does not meet the classification criteria for this hazard class.

#### CARCINOGENICITY

It does not meet the classification criteria for this hazard class.

#### REPRODUCTIVE TOXICITY

It does not meet the classification criteria for this hazard class.

#### SPECIFIC TOXICITY FOR TARGET ORGANS (STOT) - SINGLE EXPOSURE

It does not meet the classification criteria for this hazard class.

#### SPECIFIC TOXICITY FOR TARGET ORGANS (STOT) - REPEATED EXPOSURE

It does not meet the classification criteria for this hazard class.

#### ASPIRATION HAZARD

It does not meet the classification criteria for this hazard class.

Toxicological information of the mixture:

#### **1-methoxy-2-propanol; propylene glycol mono methyl ether - CAS: 107-98-2**

##### a) acute toxicity:

Test: LD50 - Oral - Species: Rat = 4016 mg/kg

Test: LD50 - Dermal - Species: Rat > 2000 mg/kg

Test: LC50 - Inhalation - Species: Rat = 54.6 mg/l - Duration: 4h

Test: LC50 - Vapours inhalation - Species: Rat > 7000 ppm - Duration: 8h

##### b) skin corrosion / skin irritation:

Test: Sensitization for Inhalation: None

#### **1,2-benzisotiazol-3(2H)-one - CAS: 2634-33-5**

##### a) acute toxicity:

Test: LD50: Skin - Species: Rat > 5000 mg/kg

Test: LD50: Oral - Species: Rat = 1020 mg/kg

#### **Reaction mass of 5-chloro-2-methyl-2H-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) - CAS: 55965-84-9**

##### a) acute toxicity:

Test: LD50: Oral - Species: Rat = 66 mg/kg - Fount: OECD 401

Test: LD50: Skin - Species: Rat > 141 mg/kg - Fount: OECD 402

##### d) respiratory or skin sensitisation:

Test: skin sensitisation - Skin: Positive

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity:

Adopt good working practices, so that the product is not released into the environment.

#### **1-methoxy-2-propanolo; propylene glycol mono methyl ether - CAS: 107-98-2**

##### a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 6800 mg/l - Duration h: 96 - Note: Leuciscus Idus

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 72

Endpoint: EC50 - Species: Daphnia > 21100-25900 mg/l - Duration h: 48

Endpoint: EC50 - Species: Fish = 20800 mg/l - Duration h: 96 - Note: Pimephales Promelas

b) Chronic aquatic toxicity:

Endpoint: NOEC - Species: Daphnia > 1000 mg/l - Duration h: 504

### **1,2-benzisotiazol-3(2H)-one - CAS: 2634-33-5**

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 3.7 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 0.37 mg/l - Duration h: 72

Endpoint: LC50 - Species: Fish = 1.9 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 4.4 mg/l - Duration h: 48 - Note: Daphnia magna

### **Reaction mass of 5-chloro-2-methyl-2H-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) - CAS: 55965-84-9**

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae = 0.048 mg/l - Duration h: 72

Endpoint: EC50 - Species: Daphnia = 0.1 mg/l - Duration h: 48

Endpoint: EC50 - Species: Fish = 0.22 mg/l - Duration h: 96

Endpoint: NOEC - Species: Algae = 0.0012 mg/l - Duration h: 72

Endpoint: NOEC - Species: Daphnia = 0.004 mg/l - Note: 21 d

Endpoint: NOEC - Species: Fish = 0.098 mg/l - Note: 28 d

### **12.2. Persistence and degradability:**

1-metossi-2-propanolo; propilene glicol mono metil etere - CAS: 107-98-2

Biodegradability: Rapidly biodegradable

### **12.3. Bioaccumulative potential:**

1-metossi-2-propanolo; propilene glicol mono metil etere - CAS: 107-98-2

Bioaccumulation: Not bioaccumulative - Test: Kow – Partition Coefficient - 0.49

### **12.4. Mobility in soil:**

1-metossi-2-propanolo; propilene glicol mono metil etere - CAS: 107-98-2

Mobility in soil: Mobile

### **12.5. Results of PBT and vPvB assessment:**

vPvB Substances: None - PBT Substances: None

### **12.6. Other adverse effects:**

None

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods:**

Recover if possible. In so doing, comply with the local and national regulations currently in force

## **14. TRANSPORT INFORMATION**

### **14.1. UN Number**

Not applicable.

### **14.2. UN proper shipping name**

Not applicable.

### **14.3. Transport hazard class**

Not applicable.

### **14.4. Packaging group**

Not applicable.

### **14.5. Environmental hazards**

Not applicable.

### **14.6. Special precautions for users.**

Not applicable.

### **14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.**

Information not pertinent.

## **15. REGULATORY INFORMATION**

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

D.Lgs. 9/4/2008 n. 81

D.M. Lavoro 26/02/2004 (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) e (UE) n. 758/2013

Regulation (EC) 2015/830

Regulation (EC) n. 286/2011 (ATP 2 CLP)

Regulation (EC) n. 618/2012 (ATP 3 CLP)

Regulation (EC) n. 487/2013 (ATP 4 CLP)

Regulation (EC) n. 944/2013 (ATP 5 CLP)

Regulation (EC) n. 605/2014 (ATP 6 CLP)

Regulation (EC) n. 2015/1221 (ATP 7 CLP)

Regulation (EC) n. 2016/918 (ATP 8 CLP)  
 Regulation (EC) n. 2016/1179 (ATP 9 CLP)  
 Regulation (EC) n. 2017/776 (ATP 10 CLP)  
 Regulation (EC) n. 2018/669 (ATP 11 CLP)  
 Regulation (EC) n. 2018/1480 (ATP 13 CLP)  
 Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:  
 Restrictions related to the product: Restriction 3  
 Restrictions related to the substances contained: No restriction.  
 Volatile Organic compounds - VOCs = 1,33 %  
 Volatile Organic compounds - VOCs = 14,57 g/l  
 Volatile CMR substances = 0.00 %  
 Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %  
 Organic Carbon - C = 0.00

Where applicable, refer to the following regulatory provisions:

- Ministerial Circulars 46 e 61 (Ammine aromatiche).
- Directive 2012/18/EU (Seveso III)
- Regulation 648/2004/CE (Detergents)
- D.L. 3/4/2006 n. 152 Environmental regulations
- Dir. 2004/42/CE (VOC Directive)

Provisions related to directives EU 2012/18 (Seveso III): N.A.

## 15.2 Chemical safety assessment:

No

## 16. OTHER INFORMATION

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

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 2	Acute Toxicity (Dermal) Category 2
Acute Tox. 2	Acute Toxicity (Inhalation), Category 2
Acute Tox. 3	Acute Toxicity (Dermal), Category 3
Acute Tox. 3	Acute Toxicity (Inhalation), Category 3
Acute Tox. 3	Acute Toxicity (Oral), Category 3
Acute Tox. 4	Acute Toxicity (Oral), Category 4
Acute Tox. 4	Acute Toxicity (Inhalation), Category 4
Skin Corr. 1B	Skin corrosion, Category 1B
Skin Corr. 1C	Skin corrosion, Category 1C
Skin Irrit. 2	Skin irritation, Category 2
Eye Dam. 1	Severe eye damage, Category 1
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1,1A,1B	Skin sensitization, Category 1,1A,1B
Skin Sens. 1A	Skin sensitization, Category 1A

STOT SE 3	Specific target organ toxicity – single exposure, category 3
Aquatic Acute 1	Hazardous to aquatic environments, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to aquatic environments, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to aquatic environments, chronic toxicity, category 2

**KEY:**

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- EC NUMBER: Identification number in ESIS (European Substances Information System)
- CLP: Regulation EC 1272/2008
- DNEL: Derived no effect level
- EmS: Emergency Schedule
- GHS: Global harmonized system for classification and labelling of chemical products
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization concentration for 50% of the test population
- IMDG: International maritime dangerous goods code - IMO: International Maritime Organization
- INDEX NUMBER: Index number of CLP Annex VI
- LC50: 50% of lethal concentration
- LD50: 50% lethal dose
- OEL: Occupational exposure level
- PBT: Persistent, bioaccumulative, and toxic according to REACH
- PEC: Predicted environmental concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation EC 1907/2006
- RID: Regulation concerning the international carriage of dangerous goods by rail
- 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 compound
- vPvB: Very persistent and very bioaccumulative according to REACH-WGK: Water hazard class (Germany))

**GENERAL BIBLIOGRAPHY**

1. Regulation (EU) 1907/2006 of the European Parliament (REACH)
2. Regulation (EU) 1272/2008 of the European Parliament (CLP)
3. Regulation (EU) 790/2009 of the European Parliament (I Atp. CLP)
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)

6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
11. Regulation (EU) 2016/918 of the European Parliament (VIII 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 templates for chemical substances - Ministry of Health and National Institute of Health

**Note:** The information contained in this sheet is based on our knowledge at the date of the last version. The user must satisfy himself as to the suitability and completeness of the information in relation to the specific use of the product. Our company assumes no liability whatsoever for the suggested, improper, irresponsible, direct or indirect use of the product and recommends that those who use our products check themselves the reliability and completeness of the information in relation to the applications for which the product is intended. The information is the result of application knowledge and laboratory testing and is expressed as such. They do not constitute a commitment on our part, also in relation to any third party rights arising from damages of various kinds. Our company guarantees constant quality in its products: any ascertained liability shall be limited to the exclusive value of our product. Given the impossibility of controlling the ways in which our products are used on all the various sites, our company cannot assume any responsibility in relation to the application and execution skills of the works.