Safety data sheet

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

1.1. Product identifier

Code:	SO8502
Product name	EXTEROL 050
Chemical name and synonym	Vegetable oil-based resin solution in aliphatic solvent

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

Intended use	Primer for wood.

1.3. Details of the supplier of the safety data sheet

Name	CARVER srl
Full address	Via Papa Giovanni XXIII, 36
District and Country	20090 Rodano (MI) Italy
	Tel. +39 (0)2 9500171
	Fax +39 (0)2 95320921
e-mail address of the competent person responsible for the Safety Data Sheet	sds@carver.it
Product distribution by	www.carver.it

1.4. Emergency telephone number

For urgent inquiries refer to	Centro Antiveleni Niguarda (MILANO) tel. +39 (0)2 66101029

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.

Hazard classification and indication:

Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
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 words: Danger

Hazard statements:

H304	May be fatal if swallowed and enters airways.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains: MIXTURE OF BENZOTRIAZOLE COBALT BIS 2-ETHYL HEXANOATE
	May produce an allergic reaction.

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

Precautionary statements:

P102	Keep out of reach of children.
P273	Avoid release to the environment.
P331	Do NOT induce vomiting.

Contains: HYDROCARBONS C10-13 <2% AROMATIC

2.3. Other hazards.

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

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		Conc. %.	Classification 1272/2008 (CLP).
VEGETABLE OIL-BASED RESIN			
CAS.		38 - 46	
EC.			
INDEX.			
HYDROCARBONS C10-13 <2% AROMATIC			
CAS.		38 - 46	Asp. Tox. 1 H304, EUH066
EC.	*927-285-2*		
INDEX.			
Reg. no.	*01-2119480162-45*		
MINERAL CHARGES			
CAS.		4 - 5	
EC.			
INDEX.			
ADDITIVES			
CAS.		1 - 2	
EC.			
INDEX.			
2-(2-BUTOXYETHOXY)ETHANOL			
CAS.	*112-34-5*	1 - 2	Eye Irrit. 2 H319
EC.	*203-961-6*		
INDEX.	*603-096-00-8*		
Reg. no.	*01-2119475104-44*		
ZIRCONIUM NEODECANOATE			
CAS.	*39049-04-2*	1 - 2	Skin Irrit. 2 H315
EC.	*254-259-1*		
INDEX.			
POLYPROPYLENE WAX			
CAS.		1 - 2	
EC.			
INDEX.			
MIXTURE OF BENZOTRIAZOLE			
CAS.		0,5 - 0,7	Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC.	*400-830-7*		
INDEX.	*607-176-00-3*		
Reg. no.	*01-0000015075-76-0017*		
3-IODO-2-PROPYNYLBUTYLCARBAMATE			
CAS.	*55406-53-6*	0,3 - 0,4	Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10
EC.			
INDEX.			
METHYL-1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE			
CAS.		0,3 - 0,4	Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410
EC.	*280-060-4*		
INDEX.			

SECTION 3. Composition/information on ingredients. ... / >>

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT

CAS.	*22464-99-9*	0,1 - 0,2	Repr. 2 H361d
EC.	*245-018-1*		
INDEX.			

COBALT BIS 2-ETHYL HEXANOATE

CAS.	*136-52-7*	0,1 - 0,2	Repr. 2 H361f, Eye Irrit. 2 H319, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412
EC.	*205-250-6*		
INDEX.			

Note: Upper limit is not included into the range.
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.

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.

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

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. 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.

SECTION 6. Accidental release measures. ... / >>

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.

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	MAK-und BAT-Werte-Liste 2012
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Databank of the social and Economic Concil of Netherlands (SER) Values, AF 2011:18
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 20. júna 2007
SVN	Slovenija	Uradni list Republike Slovenije 15. 6. 2007
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

2-(2-BUTOXYETHOXY)ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	67	10	100,5	15	
MAK	DEU	67	10	100,5	15	
VLA	ESP	67,5	10	101,2	15	
TLV	GRC	67,5	10	101,2	15	
TLV	ITA	67,5	10	101,2	15	
OEL	NLD	50		100		SKIN.
NDS	POL	67		100		
NPHV	SVK	67,5	10	101,2		
MV	SVN	67,5	10			
OEL	EU	67,5	10	101,2	15	
TLV-ACGIH		66	10			

ZIRCONIUM NEODECANOATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH		5		10	

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

MIXTURE OF BENZOTRIAZOLE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV	ITA	1			

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,0023	mg/l
Normal value in marine water	0,00023	mg/l
Normal value for fresh water sediment	3,06	mg/kg
Normal value for marine water sediment	0,306	mg/kg
Normal value for water, intermittent release	0,028	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	2	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.			VND	0,025 mg/kg				
Inhalation.			VND	0,085 mg/m3			VND	0,35 mg/m3
Skin.			VND	0,25 mg/kg	VND	0,5 mg/kg		

METHYL-1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,0022	mg/l
Normal value in marine water	0,00022	mg/l
Normal value for fresh water sediment	1,05	mg/kg
Normal value for marine water sediment	0,11	mg/kg
Normal value for water, intermittent release	0,009	mg/l
Normal value of STP microorganisms	1	mg/l

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.	VND	1,25 mg/kg/d	VND	1,25 mg/kg/d				
Inhalation.	VND	0,58 mg/m3	VND	0,58 mg/m3	VND	2,35 mg/m3	VND	2,35 mg/m3
Skin.	VND	1,25 mg/kg/d	VND	1,25 mg/kg/d	VND	2,5 mg/kg/d	VND	2,5 mg/kg/d

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH		5		10	

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.

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 well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.
HAND PROTECTION
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.

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

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 I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
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 A 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.
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. The protection provided by masks is in any case limited.
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.

Appearance	liquid
Colour	various colours
Odour	characteristic, soft
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	62 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	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.	0,88 Kg/l
Solubility	soluble in white spirits
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	18 ± 3 sec. F4
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.

VOC (Directive 1999/13/EC) :	49,00 %	-	437,36	g/litre.
VOC (volatile carbon) :	40,71 %	-	358,27	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.

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT : SADT = 210°C/410°F.

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

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

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.

10.5. Incompatible materials.

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

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

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.

The introduction of even small quantities of this liquid into the respiratory system in case of ingestion or vomit may cause bronchopneumonia and pulmonary edema.
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.

MIXTURE OF BENZOTRIAZOLE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rat
LC50 (Inhalation). > 5,8 mg/l/4 h Rat

HYDROCARBONS C10-13 <2% AROMATIC
LD50 (Dermal). > 5000 mg/kg Rabbit
LC50 (Inhalation). > 5000 mg/kg Rat

METHYL-1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
LD50 (Oral). 3230 mg/kg Rat

COBALT BIS 2-ETHYL HEXANOATE
LD50 (Oral). 3129 mg/kg Rat - Sprague-Dawley
LD50 (Dermal). > 2000 mg/kg Rat - Wistar

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT
LD50 (Oral). > 5000 mg/kg Rat - Sprague-Dawley
LD50 (Dermal). > 2000 mg/kg Rat - Wistar
LC50 (Inhalation). > 4,3 mg/l/4h Rat

2-(2-BUTOXYETHOXY)ETHANOL
LD50 (Oral). 3384 mg/kg Rat
LD50 (Dermal). 2700 mg/kg Rabbit

SECTION 12. Ecological information.

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

12.1. Toxicity.

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

MIXTURE OF BENZOTRIAZOLE

LC50 - for Fish.	2,8 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	4 mg/l/48h Daphnia Magna
EC50 - for Algae / Aquatic Plants.	> 100 mg/l/72h Pseudokirchneriella subcapitata
EC10 for Algae / Aquatic Plants.	10 mg/l/72h Pseudokirchneriella subcapitata

HYDROCARBONS C10-13 <2% AROMATIC

LC50 - for Fish.	> 1000 mg/l/96h Fish
EC50 - for Crustacea.	> 1000 mg/l/48h Tetrahymena pyriformis

METHYL-1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

LC50 - for Fish.	0,97 mg/l/96h Lepomis macrochirus
EC50 - for Algae / Aquatic Plants.	1,68 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	1 mg/l Daphnia magna

3-IODO-2-PROPYNYLBUTYLCARBAMATE

LC50 - for Fish.	0,43 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	0,21 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	0,026 mg/l/72h Scenedesmus subspicatus

COBALT BIS 2-ETHYL HEXANOATE

LC50 - for Fish.	275 mg/l/96h Fundulus heteroclitus

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT

LC50 - for Fish.	> 100 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants.	49,3 mg/l/72h Desmodesmus subspicatus

2-(2-BUTOXYETHOXY)ETHANOL

EC50 - for Crustacea.	> 100 mg/l/48h Daphnia Magna

12.2. Persistence and degradability.

COBALT BIS 2-ETHYL HEXANOATE

Solubility in water.	> 10000 mg/l
Rapidly biodegradable.	

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT

Solubility in water.	< 0,1 mg/l
Rapidly biodegradable.	

2-(2-BUTOXYETHOXY)ETHANOL

Solubility in water.	mg/l 1000 - 10000
Rapidly biodegradable.	

12.3. Bioaccumulative potential.

2-(2-BUTOXYETHOXY)ETHANOL

Partition coefficient: n-octanol/water.	1

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. 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.

SECTION 13. Disposal considerations. ... / >>

CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

After use, immerse the rags which are soaked with the product in water to prevent spontaneous combustion.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

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

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.
Product.
Point. 3
Contained substance.
Point. 55 2-(2-BUTOXYETHOXY)ETHANOL
Reg. no.: 01-2119475104-44

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.
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.

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

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:

Repr. 2	Reproductive toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, 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
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 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

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).

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

GENERAL BIBLIOGRAPHY

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

- 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
- 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.

Changes to previous review:

The following sections were modified:

02 / 03 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15.