#### Revision nr. 4 MARBEC S.R.L. Dated 11/02/2022 Printed on 11/02/2022 0030165 - NOEPOX Page n. 1/16 Replaced revision:3 (Dated: 08/02/2018)

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

#### 1.1. Product identifier

0030165 Code: Product name **NOEPOX** Chemical name and synonym **NOEPOX** 

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

Sector of use: SU22 - Professional uses

Category of products PC35- Washing and Cleaning Products (including solvent based products)

Intended use. Mixture of organic solvents for removing epoxy grout residues

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

MARBEC S.R.L. Name VIA CROCE ROSSA 5/i Full address District and Country 51037 MONTALE (PISTOIA) **ITALIA** 

Tel. +039 0573/959848

Fax

e-mail address of the competent person responsible for the Safety Data Sheet

Supplier: info@marbec.it

#### 1.4. Emergency telephone number

MARBEC srl For urgent inquiries refer to

0573959848 h8.30-13 h14-18 or +393348578502 Number of Poison Centers active 24/24 hours

IRCSS Fondazione Maugeri -Pavia 0039-0382-24444 CAV Ospedali Riuniti -Bergamo 0039-800-883300

CAV Ospedale Niguarda Ca` Granda -

Milano 0039-02-66101029

CAV Ospedale Careggi- Firenze 0039-055-7947819

CAV Policlinico Gemelli -Roma 0039-06-3054343 CAV Policlinico Umberto I -Roma 0039-06 49978000 CAV Ospedale Cardarelli -Napoli 0039-081 5453333

CAV Azienda Ospedaliera Integrata Verona - Verona 800011858

# **SECTION 2. Hazards identification**

# 2.1. Classification of the substance or mixture

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022 Printed on 11/02/2022

Page n. 2/16

Replaced revision:3 (Dated: 08/02/2018)

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:

Eye irritation, category 2

H319

Causes serious eye irritation.

#### 2.2. Label elements

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

Hazard pictograms:



Signal words: Warning

Hazard statements:

**H319** Causes serious eye irritation.

Precautionary statements:

**P280** Wear eye protection / face protection.

P337+P313 If eye irritation persists: Get medical advice / attention.

P235 Keep cool

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

#### 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  $\geq$  0.1%.

# **SECTION 3. Composition/information on ingredients**

# 3.2. Mixtures

Contains:

Identification x = Conc. % Classification (EC) 1272/2008 (CLP)

**BENZYL ALCOHOL** 

CAS 100-51-6 30 ≤ x < 50 Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022

Printed on 11/02/2022

Page n. 3/16

Replaced revision:3 (Dated: 08/02/2018)

EC 202-859-9

LD50 Oral: 1620 mg/kg, STA Inhalation vapours: 11 mg/l

INDEX 603-057-00-5

REACH Reg. 01-2119492630-38-

XXXX

Propylencarbonate

CAS 108-32-7  $30 \le x < 50$  Eye Irrit. 2 H319

EC 203-572-1

INDEX 607-194-00-1

ethoxylated fatty alcohol 8

CAS 14035-94-0  $9 \le x < 30$ 

EC INDEX -

REACH Reg. 01-0000017895-56

Pentanedioic acid, 2-methyl-, 1,5-

dimethyl ester

CAS 120313-48-6  $1 \le x < 3$  Eye Irrit. 2 H319, Skin Irrit. 2 H315

EC

INDEX -

REACH Reg. (REF.:N° 02-2119548508-30-0000

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. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

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

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

Information not available

# **SECTION 5. Firefighting measures**

# 5.1. Extinguishing media

# MARBEC S.R.L. Revision nr. 4 Dated 11/02/2022 Printed on 11/02/2022 Page n. 4/16 Replaced revision:3 (Dated: 08/02/2018)

#### 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

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022

Printed on 11/02/2022

Page n. 5/16

Replaced revision:3 (Dated: 08/02/2018)

incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany):

110

# 7.3. Specific end use(s)

Information not available

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

# 8.1. Control parameters

Regulatory References:

DEU Deutschland

Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher

Arbeitsstoffe, Mitteilung 56

Type	Country	TWA/8h		STEL/15min		Remarks	/	
	,					Observati	ons	
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	22	5	44	10	SKIN	11	
Predicted no-effect concentration	on - PNEC							
Normal value in fresh water				1	mg/l			
Normal value in marine water				0,1	mg/l			
Normal value for fresh water se	ediment			5,27	mg/l	кg		
Normal value for marine water	sediment			0,527	mg/l	kg .		
Normal value for water, intermi	ttent release			2,3	mg/l			
Normal value of STP microorga	anisms			39	mg/l			
Normal value for the terrestrial	compartment			0,45	mg/l	kg/d		
Health - Derived no-effect	t level - DNEL / I	OMEI						
nealth - Derived no-enec	Effects on	JIVICL			Effects on			
	consumers				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		Systemic		Systernic
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		8 mg/kg bw/
		0 0		3 3		bw/d		0 0
Pronylencarhonate								
Propylencarbonate Predicted no-effect concentrati	on - PNEC							
Propylencarbonate Predicted no-effect concentrati Normal value in fresh water	on - PNEC			0,9	mg/l			
Predicted no-effect concentration	on - PNEC			0,9	mg/l			
Predicted no-effect concentrati Normal value in fresh water Normal value in marine water				<u> </u>				
Predicted no-effect concentration Normal value in fresh water Normal value in marine water Normal value for water, intermi	ttent release			0,09	mg/l			
Predicted no-effect concentration Normal value in fresh water Normal value in marine water Normal value for water, intermited in the terrestrial	ttent release			0,09	mg/l			
Predicted no-effect concentration Normal value in fresh water Normal value in marine water Normal value for water, intermited in the terrestrial	ttent release compartment t level - DNEL / I	DMEL		0,09	mg/l			
Predicted no-effect concentration Normal value in fresh water Normal value in marine water Normal value for water, intermited in the terrestrial	ttent release compartment t level - DNEL / I Effects on	DMEL		0,09	mg/l mg/l			
Predicted no-effect concentrati Normal value in fresh water	ttent release compartment t level - DNEL / I	DMEL  Acute systemic	Chronic local	0,09	mg/l		Chronic local	Chronic

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022

Printed on 11/02/2022

Page n. 6/16

Replaced revision:3 (Dated: 08/02/2018)

Oral			VND	25 mg/kg bw/d				
Inhalation	10 mg/m3	VND	VND	43,5 mg/m3	20 mg/m3	VND	VND	176 mg/m3
Skin			VND	25 mg/kg			VND	50 mg/kg
				bw/d				bw/d

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.

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 (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.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Odour

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.

# **SECTION 9. Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	dense liquid	
Colour	colourless	

Not available

# 0030165 - NOEPOX

Not available

Revision nr. 4

Dated 11/02/2022

Printed on 11/02/2022

Page n. 7/16

Replaced revision:3 (Dated: 08/02/2018)

Melting point / freezing point

Initial boiling point

Not available

Flammability

Lower explosive limit

Upper explosive limit

Flash point

Not applicable

> 90 °C

pH Not applicable

Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent

mixture)

Kinematic viscosity

Not available
Solubility

Partition coefficient: n-octanol/water

Vapour pressure

Not available

Not available

Density and/or relative density

Relative vapour density

Not available

Particle characteristics

Not applicable

#### 9.2. Other information

Auto-ignition temperature

# 9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU) 1.075,00 g/litre
Explosive properties Non-explosive
Oxidising properties Non-oxidizing

# **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.

#### 10.4. Conditions to avoid

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

# 10.5. Incompatible materials

# Revision nr. 4 MARBEC S.R.L. Dated 11/02/2022 Printed on 11/02/2022 0030165 - NOEPOX Page n. 8/16 Replaced revision:3 (Dated: 08/02/2018) BENZYL ALCOHOL Incompatible with: sulphuric acid,oxidising substances,aluminium. 10.6. Hazardous decomposition products Information not available **SECTION 11. Toxicological information** In the absence of experimental toxicological data on the product itself, the possible health hazards of the product were assessed on the basis of the properties of the substances contained, according to the criteria established by the reference legislation for classification. Therefore consider the concentration of the single dangerous substances eventually mentioned in sect. 3, to evaluate the toxicological effects deriving from 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: >2000 mg/kg ATE (Dermal) of the mixture: Not classified (no significant component) BENZYL ALCOHOL LD50 (Dermal): 2000 mg/kg Rabbit

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022

Printed on 11/02/2022

Page n. 9/16

Replaced revision:3 (Dated: 08/02/2018)

LD50 (Oral): 1620 mg/kg Rat LC50 (Inhalation vapours): > 4178 mg/l/4h Rat

STA (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)

Propylencarbonate

LD50 (Dermal): > 2000 mg/kg LD50 (Oral): > 5000 mg/kg

Pentanedioic acid, 2-methyl-, 1,5-dimethyl ester

LD50 (Dermal): > 2000 mg/l LC50 (Inhalation vapours): > 5,6 mg/l

ethoxylated fatty alcohol 8

LD50 (Oral): > 2000 mg/kg rat

# SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

# SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

# RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Respiratory sensitization

Information not available

Skin sensitization

Information not available

# GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

MARBEC S.R.L.	Revision nr. 4
WANDLO S.N.L.	Dated 11/02/2022
0030165 - NOEPOX	Printed on 11/02/2022
0030103 - 140E1 OX	Page n. 10/16
	Replaced revision:3 (Dated: 08/02/2018)
CARCINOGENICITY	
Does not meet the classification criteria for this hazard class	
REPRODUCTIVE TOXICITY	
NET NOBOGINE TOXIGITE	
Does not meet the classification criteria for this hazard class	
Adverse effects on sexual function and fertility	
Information not available	
Adverse effects on development of the offspring	
Information not available	
inionnation not available	
Effects on or via lactation	
Information not available	
STOT - SINGLE EXPOSURE	
Does not meet the classification criteria for this hazard class	
<u>Target organs</u>	
Target organs	
Information not available	
Route of exposure	
Information not available	

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022 Printed on 11/02/2022

Page n. 11/16

Replaced revision:3 (Dated: 08/02/2018)

# STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

# **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**

# 12.1. Toxicity

BENZYL ALCOHOL

LC50 - for Fish 460 mg/l/96h Pimephales promelas EC50 - for Crustacea 230 mg/l/48h daphnia magna

EC50 - for Algae / Aquatic Plants 770 mg/l/72h Pseudokircheneriella subcapitata

Propylencarbonate

LC50 - for Fish > 1000 mg/l/96h EC50 - for Algae / Aquatic Plants > 900 mg/l/72h

Pentanedioic acid, 2-methyl-, 1,5-dimethyl

ester

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022

Printed on 11/02/2022

Page n. 12/16

Replaced revision:3 (Dated: 08/02/2018)

ethoxylated fatty alcohol 8

LC50 - for Fish

5 mg/l/96h

# 12.2. Persistence and degradability

BENZYL ALCOHOL

Rapidly degradable

Propylencarbonate

Rapidly degradable

ethoxylated fatty alcohol 8 Rapidly degradable

#### 12.3. Bioaccumulative potential

BENZYL ALCOHOL

Partition coefficient: n-octanol/water

1,1

# 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 ≥ 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.

# CONTAMINATED PACKAGING

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

MARBEC S.R.L.	Revision nr. 4
	Dated 11/02/2022
0030165 - NOEPOX	Printed on 11/02/2022
	Page n. 13/16
	Replaced revision:3 (Dated: 08/02/2018)
SECTION 14. Transport information	
ozonow 14. manoport miorination	
he product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods ne International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA	by Road (ADR) and by Rail (RID), of
ie memational Mantime Dangerous Cooks Code (IMDO), and of the international Air Transport Association (IATA)	regulations.
4.1. UN number or ID number	
lot applicable	
4.2. UN proper shipping name	
lot applicable	
4.3. Transport hazard class(es)	
4.3. Transport nazaru ciass(es)	
lot applicable	
4.4. Packing group	
let applicable	
lot applicable	
4.5. Environmental hazards	
lot applicable	
4.6. Smariel measurations for user	
4.6. Special precautions for user	
lot applicable	
4.7. Maritime transport in bulk according to IMO instruments	
nformation not relevant	
SECTION 15. Regulatory information	

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022 Printed on 11/02/2022

Page n. 14/16

Replaced revision:3 (Dated: 08/02/2018)

# 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

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

3

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

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.

#### 15.2. Chemical safety assessment

A chemical safety assessment has been prepared for the following substances contained in the mixture: Benzyl alcohol.

# **SECTION 16. Other information**

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

Acute Tox. 4 Acute toxicity, category 4

Eye Irrit. 2 Eye irritation, category 2

Skin Irrit. 2 Skin irritation, category 2

# 0030165 - NOEPOX

Revision nr. 4

Dated 11/02/2022

Printed on 11/02/2022

Page n. 15/16

Replaced revision:3 (Dated: 08/02/2018)

H302 Harmful if swallowed. H332 Harmful if inhaled.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

#### 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 as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- 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.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- 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
- 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 (EÚ) 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)
   The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology

# MARBEC S.R.L. Revision nr. 4 Dated 11/02/2022 Printed on 11/02/2022 Page n. 16/16 Replaced revision:3 (Dated: 08/02/2018)

- 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: 01 / 02 / 03 / 09 / 11 / 12 / 15 / 16.