# Security data sheet



**Product:** ET5428

Manufacturer: PERMABOND ENGINEERING ADHESIVES

Product group: **KLEBSTOFF** 

Article group: 2-K KLEBSTOFF

Download: 02.05.2024

PERMABOND ET5428B BLACK

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## Permabond ET5428B Black

Revision nr.2 Dated 13/07/2023 Printed on 13/07/2023 Page n. 1 / 11

Replaced revision:1 (Dated 13/06/2023)

## **Safety Data Sheet**

According to Annex II to REACH - Regulation (EU) 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

Product name Permabond ET5428B Black

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

Intended use Adhesive

Identified Uses Industrial Professional Consumer
Use

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

Name Permabond Engineering Adhesives
Full address Niederkasseler Lohweg 18
District and Country Düsseldorf
Germany

Tel. +44 (0)1962 711 661

e-mail address of the competent person

responsible for the Safety Data Sheet info.europe@permabond.com

Supplier: Permabond Engineering Adhesives Ltd

Wessex Way, Colden Common,

Winchester, Hampshire SO21 1WP, UK

tel: +44 (0)1962 711 661

mail: info.europe@permabond.com

#### 1.4. Emergency telephone number

For urgent inquiries refer to +44 (0)1962 711 661 ( 8.00 am-5.00 pm Mon-Fri)

CHEMTREC UK: +(44)-870-8200418 CHEMTREC Ireland: +(353)-19014670 CHEMTREC Australia: +(61)-290372994 CHEMTREC New Zealand: +(64)-98010034

### **SECTION 2. Hazards identification**

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

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Acute toxicity, category 4

Skin corrosion, category 1B

Serious eye damage, category 1

Skin sensitization, category 1

H310

H311

H311

H312

H311

H311

H312

H311

H312

May cause an allergic skin reaction.

#### 2.2. Label elements

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

Hazard pictograms:





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

Signal words: Danger

Hazard statements:

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.H317 May cause an allergic skin reaction.

Precautionary statements:

**P280** Wear protective gloves / protective clothing / eye protection / face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352 In case of contact with the skin: wash abundantly with soap and water.

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

do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice / attention.

Contains: 3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)

CALCIUM NITRATE TETRAHYDRATE

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

#### 2.3. Other hazards

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

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

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

#### 3.2. Mixtures

Contains:

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

3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)

INDEX 30 ≤ x < 60 Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317

EC 224-207-2 CAS 4246-51-9

REACH Reg. 01-2119963377-26-XXXX CALCIUM NITRATE TETRAHYDRATE

INDEX  $5 \le x < 10$  Acute Tox. 4 H302, Eye Dam. 1 H318

EC 233-332-1 LD50 Oral: >300 mg/kg

CAS 13477-34-4

REACH Reg. 01-2119495093-35-XXXX 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

INDEX 603-069-00-0 5 ≤ x < 10 Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315

EC 202-013-9 STA Oral: 500 mg/kg

CAS 90-72-2

REACH Reg. 01-2119560597-27-XXXX

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

## **SECTION 4. First aid measures**

#### 4.1. Description of first aid measures

Skin: Wash the skin thoroughly with soap and water. If symptoms arise, request medical assistance

Eyes: Make sure you have removed any contact lenses before rinsing your eyes. Wash

Readyly and abundantly the eyes with water keeping the eyelids open.

Continue to rinse for at least 15 minutes. Consult a doctor if the discomfort continues.

Ingestion: rinse the mouth with water thoroughly. Make a abundant quantity of water drink.

Do not cause vomiting. Consult a doctor.

Inhalation: move the subject exposed in the open air. Consult a doctor in case of serious symptoms or persistent.



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

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

Contact with the skin: skin irritation. Mild dermatitis, allergic rash. Contact with eyes: irritating and can cause redness and pain.

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

Note for the doctor no specific recommendation. Symptomatic treatment.

### **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 DUE TO EXPOSURE IN THE EVENT OF FIRE

Avoid breathing combustion products, carbon monoxide (CO), carbon dioxide (CO2), and nitric oxides (NOx).

#### 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

#### 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



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

from any incompatible materials, see section 10 for details.

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

Adhesive

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

#### 8.1. Control parameters

		(	CALCIUM NITRA	ATE TETRAHY	RATE				
Predicted no-effect cor	ncentration	- PNEC							
Normal value in fresh			0,45	mg/l					
Normal value in mari			0,045	mg/l					
Normal value of STP microorganisms						18	mg/l		
Health - Derived no-eff	ect level - D	NEL / DMEL							
	Effects on consumers				Effects on workers				
Route of exposure	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic	
	local	systemic	local	systemic	local	systemic	local	systemic	
Oral				8,33					
				mg/kg bw/d					
Inhalation				29				98	
				mg/m3				mg/m3	
Skin				8,33				13,9	
				mg/kg bw/d				mg/kg	
								bw/d	

		2,4,6-T	RIS(DIMETHYL	<b>AMINOMETH</b>	YL)PHENOL				
Predicted no-effect cor	ncentration	- PNEC							
Normal value in fresh water						84	mg/l		
Normal value in marine water					84	mg/l			
Health - Derived no-eff	ect level - D	NEL / DMEL					_		
	Effects on consumers				Effects on workers				
Route of exposure	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic	
	local	systemic	local	systemic	local	systemic	local	systemic	
Inhalation							0,31		
							mg/m3		

		3,3'-OX'	YBIS(ETHYLEN	IEOXY)BIS(PR	OPYLAMINE)			
redicted no-effect cor	ncentration -	- PNEC						
Normal value in fresh water						0,22	mg/l	
Normal value in marine water						0,022	mg/l	
Normal value for fresh water sediment						1,1	mg/kg/d	
Normal value for marine water sediment							mg/kg/d	
Normal value of STP microorganisms							mg/l	
Normal value for the terrestrial compartment						0,091	mg/kg/d	
lealth - Derived no-eff	ect level - D	NEL / DMEL						
	Effects on consumers Effects on wo					orkers		
Route of exposure	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Oral				5				
				mg/kg/d				
Inhalation	6.5	52	0.5	17	13	176	1	59
	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
Skin				5				8.3
				mg/kg/d				mg/kg/d

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

### 8.2. Exposure controls

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



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

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, 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 II 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** 

Wear airtight protective goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

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 Appearance paste Colour black Odour amino Melting point / freezing point not available Initial boiling point not available Flammability not available Lower explosive limit not available Upper explosive limit not available Flash point 100 Auto-ignition temperature not available Decomposition temperature not available not available

Kinematic viscosity not available

Dynamic viscosity ~ 110000 mPa.s Thixo

Solubility not available
Partition coefficient: n-octanol/water not available
Vapour pressure not available
Density and/or relative density 1,1

Relative vapour density not available Particle characteristics not applicable

Reason for missing data:substance/mixture is

water)

Temperature: 23 °C

non-soluble

Information

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available



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### **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

Strong reducing and oxidizing agents.

#### 10.6. Hazardous decomposition products

By thermal decomposition, carbon monoxide, carbon dioxide and ed other unidentified organic compounds.

### **SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture: Not classified (no significant component)

ATE (Oral) of the mixture: 1875,39 mg/kg

ATE (Dermal) of the mixture: Not classified (no significant component)

CALCIUM NITRATE TETRAHYDRATE

LD50 (Oral): > 300 mg/kg

 $2,\!4,\!6\text{-}\mathsf{TRIS}(\mathsf{DIMETHYLAMINOMETHYL})\mathsf{PHENOL}$ 

STA (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP

(figure used for calculation of the acute toxicity estimate of the mixture)

3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)

LD50 (Dermal): > 2150 mg/kg

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

LD50 (Oral):

3160 mg/kg

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

#### 11.2. Information on other hazards

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

### **SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

#### 12.1. Toxicity

CALCIUM NITRATE TETRAHYDRATE

LC50 - for Fish > 100 mg/l/96h 490 mg/l/48h EC50 - for Crustacea

#### 12.2. Persistence and degradability

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

> 10000 mg/l Solubility in water

NOT rapidly degradable

## 12.3. Bioaccumulative potential

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Partition coefficient: n-octanol/water -0,66

12.4. Mobility in soil

@EPY 11.5.1 - SDS 1004.14



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

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.

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.

Waste class 08 04 09\* stickers and sealed sealing, containing organic solvents or other dangerous substances.

### **SECTION 14. Transport information**

#### 14.1. UN number or ID number

ADR / RID, IMDG, IATA: 2735

### 14.2. UN proper shipping name

ADR / RID: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. IMDG: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. IATA: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.

### 14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8



#### 14.4. Packing group

ADR / RID, IMDG, IATA:

### 14.5. Environmental hazards

ADR / RID: NO IMDG: NO IATA: NO



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

14.6. Special precautions for user

ADR / RID: HIN - Kemler: 80 Limited Quantities: 5 L Tunnel restriction code: (E)

Special provision: 274
IMDG: EMS: F-A, S-B Limited Quantities: 5 L

IATA: Cargo: Maximum quantity: 60 L Packaging instructions: 856
Passengers: Maximum quantity: 5 L Packaging instructions: 852

Special provision: A3, A803

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

Information not relevant

### **SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: None

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

Product
Point
Contained substance

Contained substance Point 75

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

not applicable

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

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.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

### 15.2. Chemical safety assessment

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

### **SECTION 16. Other information**

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

Acute Tox. 4
Skin Corr. 1B
Skin corrosion, category 1B
Eye Dam. 1
Serious eye damage, category 1
Eye Irrit. 2
Skin Irrit. 2
Skin Irrit. 2
Skin sens. 1
Skin sensitization, category 1

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.
H319 Causes serious eye irritation.



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#### **SECTION 16. Other information**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

#### 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
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2019/521 (XII Atp. CLP)
- 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
- 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- 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
- FCHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy



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### **SECTION 16. Other information**

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

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: 02 / 08 / 11.