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	Safety Data Sheet II to REACH - Regulation 2020/878 and to Annex II to UK RE bstance/mixture and of the company/unde	
SECTION 1. Identification of the 3d	bstance/mixture and of the company/unde	artaking
1.1. Product identifier Code: Product name	160379-100745 CAT. per HYDROGUARD Primer ZP	
1.2. Relevant identified uses of the substance or Intended use Hardener for two control	mixture and uses advised against omponents water based paint.	
1.3. Details of the supplier of the safety data she	et	
Name Full address District and Country	Ti.Pi.Ci. S.a.s. Via Val Lerone, 21 16011 Arenzano (GE) Italy	
	Tel. +39 010 9111368	
	Fax +39 010 9134188	
e-mail address of the competent person		
responsible for the Safety Data Sheet	laboris@tipici.net	
1.4. Emergency telephone number For urgent inquiries refer to	Centro Antiveleni di Bergamo +39800883300 (Azienda Bergamo) Centro Antiveleni di Firenze +39055/7947819 (CAV Osj Centro Antiveleni di Foggia +39800183459 (Az. Osp. U Centro Antiveleni di Milano +3902/66101029 (CAO Osp Milano) Centro Antiveleni di Napoli +39081/5453333 (CAV Osp Centro Antiveleni di Pavia +390382/24444 (CAV IRCCS Centro Antiveleni di Roma +3906/3054343 (CAV Polici Centro Antiveleni di Roma +3906/49978000 (CAV Polici Centro Antiveleni di Roma +3906/49978000 (CAV Polici Centro Antiveleni di Roma +3906/68593726 (CAV Osp. Roma) Centro Antiveleni di Verona +39800011858 (Azienda O	pedale Careggi - Firenze) niv. Foggia - Foggia) pedale Niguarda Cà Granda - edale Cardarelli - Napoli) Fondazione Maugeri - Pavia) inico Gemelli - Roma) Ilinico Umberto I - Roma) Pediatrico Bambino Gesù -

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:		
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.

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2.2. Label elements			
Hazard labelling pursuant to	EC Regulation 1272/2008 (C	CLP) and subsequent amendments and supplements	S.
Hazard pictograms:			
Signal words:	Warning		
Hazard statements:			
H319	Causes serious eye irritatior	l.	
H315 H317	Causes skin irritation. May cause an allergic skin r		
Precautionary statements:			
P280 P261 P333+P313 P337+P313 P264 P362+P364	If skin irritation or rash occur If eye irritation persists: Get Wash with fresh water thoro	/ gas / mist / vapours / spray. s: Get medical advice / attention. medical advice / attention.	
Contains:	MALEIC ANHYDRIDE Isolated polymer adduct		
	Fatty acids, C14-18 and C16	S-18-unsatd., maleated	
2.3. Other hazards			
On the basis of available da	ta, the product does not conta	ain any PBT or vPvB in percentage ≥ than 0,1%.	
The product does not contai	in substances with endocrine	disrupting properties in concentration $\ge 0.1\%$.	
SECTION 3. Comp	oosition/information	on ingredients	
3.2. Mixtures			
Contains:			
Identification Isolated polymer adduct	x = Conc. %	Classification (EC) 1272/2008 (CLP)	
INDEX EC	14 ≤ x < 15	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 7	1B H317

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CAS -			
REACH Reg. POLIMERO			
2-BUTOXYETHANOL			
INDEX 603-014-00-0	0,2 ≤ x < 0,3	Acute Tox. 3 H331, Acute Tox. 4 H302, Eye Irrit.	2 H319, Skin Irrit. 2 H315
EC 203-905-0		LD50 Oral: 1200 mg/kg, LC50 Inhalation vapours	s: 3 mg/l/4h
CAS 111-76-2			-
Fatty acids, C14-18 and C16-18- unsatd., maleated INDEX -	0,1≤x< 0,2	Skin Irrit. 2 H315, Skin Sens. 1 H317	
EC 288-306-2			
CAS 85711-46-2			
REACH Reg. 01-2119976378-19-			
XYLENE (MIXTURE OF ISOMERS)			
INDEX 601-022-00-9	0,1 ≤ x < 0,2	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox	k. 4 H332, Skin Irrit. 2 H315,
EC 215-535-7		Classification note according to Annex VI to the STA Dermal: 1100 mg/kg, STA Inhalation vapour	
CAS 1330-20-7			
ETHYLBENZENE			
INDEX 601-023-00-4	0 ≤ x < 0,1	Flam. Liq. 2 H225, Acute Tox. 4 H332, Asp. Tox.	1 H304, STOT RE 2 H373
EC 202-849-4		LC50 Inhalation vapours: 17,2 mg/l/4h	
CAS 100-41-4			
2-ETHYLESANOL			
INDEX -	0 ≤ x < 0,1	Eye Irrit. 2 H319, Skin Irrit. 2 H315	
EC 203-234-3	-		
CAS 104-76-7			
QUARTZ			
INDEX -	0 ≤ x < 0,1	STOT RE 2 H373	
EC 238-878-4	-		
CAS 14808-60-7			
MALEIC ANHYDRIDE			
INDEX 607-096-00-9	0,001 ≤ x < 0,1	Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr	. 1B H314, Eye Dam. 1
EC 203-571-6		H318, Resp. Sens. 1 H334, Skin Sens. 1A H317 Skin Sens. 1A H317: ≥ 0,001%	, EUH071
CAS 108-31-6		,	
		LD50 Oral: 400 mg/kg	

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

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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

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.

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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	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
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983;
		Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive
		2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

2-BUTOXYETHANOL

Туре	Country	TWA/8h		STEL/15min		Remarks / Observatior	าร
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	49	10	98 (C)	20 (C)	SKIN	
MAK	DEU	49	10	98	20	SKIN	Hinweis
VLA	ESP	98	20	245	50	SKIN	
VLEP	FRA	49	10	246	50	SKIN	
VLEP	ITA	98	20	246	50	SKIN	
WEL	GBR	123	25	246	50	SKIN	
OEL	EU	98	20	246	50	SKIN	
TLV-ACGIH		97	20				

TLV-ACGIH

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm	Observations	
AGW	DEU	440	100	880	200	SKIN	

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MAK	DEU	440	100	880	200	SKIN	
VLA	ESP	221	50	442	100	SKIN	
VLEP	FRA	221	50	442	100	SKIN	
VLEP	ITA	221	50	442	100	SKIN	
WEL	GBR	220	50	441	100	SKIN	
OEL	EU	221	50	442	100	SKIN	
TLV-ACGIH			20				

ETHYLBENZENE

Threshold Limit Valu	le						
Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	88	20	176	40	SKIN	
MAK	DEU	88	20	176	40	SKIN	
VLA	ESP	441	100	884	200	SKIN	
VLEP	FRA	88,4	20	442	100	SKIN	
VLEP	ITA	442	100	884	200	SKIN	
WEL	GBR	441	100	552	125	SKIN	
OEL	EU	442	100	884	200	SKIN	
TLV-ACGIH		87	20				

2-ETHYLESANOL

Threshold Limit Value							
Туре	Country	TWA/8h		STEL/15min		Remarks /	
						Observations	
		mg/m3	ppm	mg/m3	ppm		
OEL	EU	5,4	1				

QUARTZ

Threshold Limit Val	ue						
Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
VLA	ESP		0,05			RESP	
VLEP	FRA	0,1				RESP	
VLEP	ITA	0,1				RESP	
OEL	EU	0,1				RESP	
TLV-ACGIH		0,025				RESP	

MALEIC ANHYDRIDE

Threshold Limit Value							
Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	0,081	0,02	0,081 (C)	0,02 (C)		
MAK	DEU	0,081	0,02	0,081 (C)	0,02 (C)		C = 0,20 mg/m3
VLA	ESP	0,4	0,1				
VLEP	FRA			1			

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WEL GBR	1	3	
TLV-ACGIH	0,01 0,0025	5	INHAL
Legend:			
(C) = CEILING ; INHAL = Inhalable I	Fraction ; RESP = Respirable	Fraction ; THORA = Thoracic Frac	ction.
8.2. Exposure controls			
through effective local aspiration. When choosing personal protective eq	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 fac	e and eye wash station.		
The following should be considered wh	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		
	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.		andard EN ISO 20344). Wash body with soap
EYE PROTECTION Wear airtight protective goggles (see s	tandard 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 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. 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	liquid		
Colour	beige		
Odour	characteristic		
Melting point / freezing point	not available		
Initial boiling point	not available		

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Flammability	not available
Lower explosive limit	not available
Upper explosive limit	not available
Flash point	> 65 °C
Auto-ignition temperature	not available
Decomposition temperature	not available
pH	11
Kinematic viscosity	not available
Solubility	partially soluble in water
Partition coefficient: n-octanol/water	not available
Vapour pressure	not available
Density and/or relative density	1,32 (+-) 0,050
Relative vapour density	not available
Particle characteristics	not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	1,59 %	-	20,97	g/litre
VOC (volatile carbon)	1,15 %	-	15,22	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.

2-BUTOXYETHANOL

Decomposes under the effect of heat.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

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

2-BUTOXYETHANOL

May react dangerously with: aluminium, oxidising agents. Forms peroxides with: air.

XYLENE (MIXTURE OF ISOMERS)

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Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,p vith: air.	perchlorates.May form explosive mixture
ETHYLBENZENE	
Reacts violently with: strong oxidants.Attacks various types of plastic materials.May form explosive mixtures with	n: air.
10.4. Conditions to avoid	
None in particular. However the usual precautions used for chemical products should be respected.	
2-BUTOXYETHANOL	
Avoid exposure to: sources of heat,naked flames.	
10.5. Incompatible materials	
nformation not available	
10.6. Hazardous decomposition products	
2-BUTOXYETHANOL	
∕lay develop: hydrogen.	
ETHYLBENZENE	
Nay develop: methane,styrene,hydrogen,ethane.	

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

XYLENE (MIXTURE OF ISOMERS) WORKERS: inhalation; contact with the skin. POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

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ETHYLBENZENE

WORKERS: inhalation; contact with the skin. POPULATION: ingestion of contaminated food or water; contact with the skin of products containing the substance.

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

XYLENE (MIXTURE OF ISOMERS)

Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

ETHYLBENZENE

As the counterparts of benzene, may have an acute effect on the central nervous system, with depression, narcosis, often preceded by dizziness and associated with headache (IspesI). Is irritating for skin, conjunctiva and respiratory tract.

Interactive effects

XYLENE (MIXTURE OF ISOMERS)

Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:
ATE (Oral) of the mixture:
ATE (Dermal) of the mixture:

2-BUTOXYETHANOL

LD50 (Oral): LC50 (Inhalation vapours):

XYLENE (MIXTURE OF ISOMERS)

LD50 (Dermal): STA (Dermal):

LD50 (Oral): LC50 (Inhalation vapours):

ETHYLBENZENE

LD50 (Dermal): LD50 (Oral): LC50 (Inhalation vapours):

MALEIC ANHYDRIDE

> 20 mg/l Not classified (no significant component) Not classified (no significant component)

1200 mg/kg Guinea pig 3 mg/l/4h Rat

4350 mg/kg Rabbit 1100 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)

3523 mg/kg Rat 26 mg/l/4h Rat

15354 mg/kg Rabbit 3500 mg/kg Rat 17,2 mg/l/4h Rat

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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

Information not available

12.2. Persistence and degradability

XYLENE (MIXTURE OF ISOMERS)	
Solubility in water	100 - 1000 mg/l
Rapidly degradable ETHYLBENZENE	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable 2-BUTOXYETHANOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable MALEIC ANHYDRIDE	
Solubility in water	> 10000 mg/l
Entirely degradable	
12.3. Bioaccumulative potential	
XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: n-octanol/water	3,12
BCF	25,9

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Partition coefficient: n-octanol/water	3,6
2-BUTOXYETHANOL Partition coefficient: n-octanol/water	0,81
MALEIC ANHYDRIDE Partition coefficient: n-octanol/water	-2,78
12.4. Mobility in soil	
XYLENE (MIXTURE OF ISOMERS) Partition coefficient: soil/water	2,73

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 \geq 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

ETHYLBENZENE

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.

SECTION 14. Transport information

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

14.1. UN number or ID number

not applicable

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	·		Page n. 14/17
			Replaced revision:6 (Dated: 21/11/2022)
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. Maritime transport in bulk accor	ding to IMO instruments		
Information not relevant			
SECTION 15. Regulatory i	nformation		
15.1. Safety, health and environmen	tal regulations/legislation specific for the s	ubstance or mixture	
Seveso Category - Directive 2012/18/EU	I: None		
Restrictions relating to the product or co	ntained substances pursuant to Annex XVII to	EC Regulation 1907/2006	
Product Point	3 - 40		
Contained substance			
Point	75		
Regulation (EU) 2019/1148 - on the mai	keting and use of explosives precursors		

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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:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A

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Skin Sens. 1B	Skin sensitization, category 1B
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
EUH071	Corrosive to the respiratory tract.

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

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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:

02 / 03 / 08 / 09 / 10 / 11 / 12 / 16.