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

Code:	**ME03A**
Product name	**EPOXY REGULAR PARTE B**
Chemical name and synonym	**Mix of amines**

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

Intended use: **Catalyst for epoxy ahesives**

Identified Uses	Industrial	Professional	Consumer
Professional uses: public sector (administration, education, entertainment, services, crafts)	**-**	**ERC: 8b, 8e. PROC: 10, 11, 19. PC: 1.**	**-**

1.3. Details of the supplier of the safety data sheet

Name	**Industria Chimica General S.r.l.**		
Full address	**Via Repubblica di San Marino 8**		
District and Country	**41122**	**Modena Italy**	**(MO)**
	Tel.	**(+39) 059 450991 / 059 450978**	
	Fax	**(+39) 059 450615**	
e-mail address of the competent person responsible for the Safety Data Sheet	**ricerca@generalchemical.it**		
Supplier:	**Industria Chimica General S.r.l.**		

1.4. Emergency telephone number

For urgent inquiries refer to

Milano, Italy	**(+39) 02 66101029**	**Centro Antiveleni Ospedale Niguarda Ca' Granda**
Pavia, Italy	**(+39) 0382 24444**	**Centro Antiveleni IRCSS Fondazione Maugeri**
Bergamo, Italy	**(+39) 800 883300**	**Centro Antiveleni Ospedali Riuniti**
Firenze, Italy	**(+39) 055 7947819**	**Centro Antiveleni Ospedale Careggi**
Roma, Italy	**(+39) 06 3054343**	**Centro Antiveleni Policlinico Gemelli**
Roma, Italy	**(+39) 06 49978000**	**Centro Antiveleni Policlinico Umberto I**
Napoli, Italy	**(+39) 081 7472870**	**Centro Antiveleni Ospedale Cardarelli**

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:

Reproductive toxicity, category 2	H361	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Skin corrosion, category 1	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

SECTION 2. Hazards identification ... / >>

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:

H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

Precautionary statements:

P260	Do not breathe dust or fume.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P501	Dispose of the product / container in an authorized installation according to national and local regulations.

Contains:
2-piperazin-1-ylethylamine
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with TETA -POLYMER
PHENOL, STYRENATED
Amines, polyethylenepoly-, triethylenetetramine fraction

2.3. Other hazards

PBT substances contained:
2-piperazin-1-ylethylamine

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)
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with TETA -POLYMER			
INDEX		5 ≤ x < 10	**Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC	*500-191-5*		
CAS	*68082-29-1*		
2-piperazin-1-ylethylamine			
INDEX	*612-105-00-4*	3 ≤ x < 5	**Repr. 2 H361, Acute Tox. 3 H311, Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr. 1 H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412**
EC	*205-411-0*		**STA Oral: 500 mg/kg, LD50 Dermal: 866 mg/kg**
CAS	*140-31-8*		

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

REACH Reg. *01-2119471486-30*
PHENOL, STYRENATED
INDEX 2,5 ≤ x < 5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *262-975-0*
CAS *61788-44-1*
REACH Reg. *01-2119980970-27*
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
INDEX 3 ≤ x < 5 **Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412**
EC *500-101-4*
CAS *38294-64-3*
REACH Reg. *01-2119965165-33*
3-aminomethyl-3,5,5-trimethylcyclohexylamine
INDEX *612-067-00-9* 3 ≤ x < 5 **Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317**
EC *220-666-8* **Skin Sens. 1A H317: ≥ 0,001%**
CAS *2855-13-2* **STA Oral: 500 mg/kg**
REACH Reg. *01-2119514687-32-xxxx*
benzyl alcohol
INDEX *603-057-00-5* 1 ≤ x < 5 **Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319**
EC *202-859-9* **LD50 Oral: 1230 mg/kg, STA Inhalation vapours: 11 mg/l**
CAS *100-51-6*
REACH Reg. *01-2119492630-38*
SILICON DIOXIDE (nanoform)
INDEX 1 ≤ x < 5
EC *231-545-4*
CAS *7631-86-9*
REACH Reg. *01-2119379499-16*
A (ISOPROPYL) NAPHTHALENE
INDEX 1 ≤ x < 2,5 **Asp. Tox. 1 H304, Aquatic Chronic 1 H410 M=1**
EC *254-052-6*
CAS *38640-62-9*
REACH Reg. *01-2119565150-48*
2-methoxy-1-methylethyl acetate
INDEX *607-195-00-7* 1 ≤ x < 5 **Flam. Liq. 3 H226, STOT SE 3 H336**
EC *203-603-9*
CAS *108-65-6*
REACH Reg. *01-2119475791-29*
Amines, polyethylenepoly-, triethylenetetramine fraction
INDEX *612-059-00-5* 0,5 ≤ x < 1 **Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412, EUH071**
EC *292-588-2* **LD50 Oral: 1716 mg/kg, LD50 Dermal: 1465 mg/kg**
CAS *90640-67-8*
REACH Reg. *01-2119487919-13*
Quartz (respirable fraction)
INDEX 0,5 ≤ x < 1 **STOT RE 1 H372**
EC *238-878-4*
CAS *14808-60-7*
REACH Reg. *esente secondo allegato V*
2,4,6-tri(dimethyl-aminomethyl) phenol
INDEX *603-069-00-0* 0,5 ≤ x < 1 **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*

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

silicon dioxide
Silicon dioxide

Supplementary information for nanoforms

Shape
Shape 1:

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

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

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

In case of accident or discomfort, consult a doctor immediately, showing the label and / or the safety data sheet. No special treatment provided.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING MEANS
The extinguishing media are the traditional ones: carbon dioxide, foam, dust and water spray.
MEANS OF EXTINCTION NOT SUITABLE
Do not use full jet water.

5.2. Special hazards arising from the substance or mixture

HAZARDS DUE TO EXPOSURE IN THE EVENT OF FIRE
Avoid breathing combustion products. Combustion products may include: carbon monoxide, carbon dioxide, benzaldehyde.

5.3. Advice for firefighters

GENERAL INFORMATIONS
Cool the containers with water jets to avoid decomposition of the product and the development of substances potentially hazardous for health. Always wear the complete fire protection equipment. Collect extinguishing water that must not be discharged into drains. Dispose of contaminated water used for extinction and the remains of the fire according to the regulations in force.
EQUIPMENT
Normal fire-fighting garments, such as a fireproof blanket, a polycarbonate helmet with screen frame, full-face mask with ABEKP3 multi-purpose filter, gloves and heat-resistant suit, safety belt.

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

Handle the product after consulting all the other sections of this safety data sheet. Do not use people with a history of skin sensitization in any process that requires the use of this product. Avoid dispersion of the product in the environment. Do not eat, drink or smoke during use. Remove contaminated clothing and protective equipment before entering areas where you eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Keep the containers closed, in a well-ventilated place, away from direct sunlight. Keep the containers away from any incompatible materials, checking section 10.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58
ESP	España	Límites de exposición profesional para agentes químicos en España 2023
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ''σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία''»
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
RUS	Россия	ПОСТАНОВЛЕНИЕ от 13 февраля 2018 г. N 25 ОБ УТВЕРЖДЕНИИ ГИГИЕНИЧЕСКИХ НОРМАТИВОВ ГН 2.2.5.3532-18 "ПРЕДЕЛЬНО ДОПУСТИМЫЕ КОНЦЕНТРАЦИИ (ПДК) ВРЕДНЫХ ВЕЩЕСТВ В ВОЗДУХЕ РАБОЧЕЙ ЗОНЫ"
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 2023

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

2-piperazin-1-ylethylamine

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,058	mg/l
Normal value in marine water	0,0058	mg/l
Normal value for fresh water sediment	215	mg/kg/d
Normal value for marine water sediment	21,5	mg/kg/d
Normal value for water, intermittent release	0,58	mg/l
Normal value of STP microorganisms	250	mg/l
Normal value for the terrestrial compartment	1	mg/kg/d

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
Inhalation					0,08 mg/m3	10,6 mg/m3	0,015 mg/m3	10.6 mg/m3
Skin						20 mg/kg bw/d		3,33 mg/kg bw/d

benzyl alcohol

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	22	5	44	10	SKIN
NDS/NDSCh	POL	240				
ПДК	RUS			5		
TLV-ACGIH		45	10			

Predicted no-effect concentration - PNEC

Normal value in fresh water	1	mg/l
Normal value in marine water	0,1	mg/l
Normal value for fresh water sediment	5,27	mg/kg
Normal value for marine water sediment	0,527	mg/kg
Normal value for the terrestrial compartment	0,456	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		20 mg/kg bw/d		4 mg/kg bw/d				
Inhalation		27 mg/m3		5,4 mg/m3		110 mg/m3		22 mg/m3
Skin				20 mg/kg bw/d		40 mg/kg bw/d		8 mg/kg bw/d

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Predicted no-effect concentration - PNEC

Normal value in fresh water	6	mg/l
Normal value in marine water	6	mg/l
Normal value for fresh water sediment	5784	mg/kg
Normal value for marine water sediment	578	mg/kg
Normal value for water, intermittent release	23	mg/l
Normal value of STP microorganisms	318	mg/l
Normal value for the terrestrial compartment	1121	mg/kg/d

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				0.526 mg/kg bw/d				
Inhalation					0.073 mg/m3		0.073 mg/m3	

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

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,06	mg/l
Normal value in marine water	0,006	mg/l
Normal value for the terrestrial compartment	1,121	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				0,526 mg/kg bw/d				
Inhalation					0,073 mg/m3		0,073 mg/m3	

SILICON DIOXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		10				INHAL
TLV-ACGIH		3				RESP

A (ISOPROPYL) NAPHTHALENE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00026	mg/l
Normal value in marine water	0,00002	mg/l
	6	
Normal value for fresh water sediment	0,853	mg/kg/d
Normal value for marine water sediment	0,085	mg/kg/d
Normal value of STP microorganisms	0,15	mg/l
Normal value for the food chain (secondary poisoning)	25	mg/kg
Normal value for the terrestrial compartment	0,171	mg/kg/d

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				2,1 mg/kg bw/d				
Inhalation				7,4 mg/m3				30 mg/m3
Skin				2,1 mg/kg bw/d				4,3 mg/kg bw/d

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

2-methoxy-1-methylethyl acetate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	270	50	270	50		
MAK	DEU	270	50	270	50		
VLA	ESP	275	50	550	100	SKIN	
VLEP	FRA	275	50	550	100	SKIN	
TLV	GRC	275	50	550	100		
VLEP	ITA	275	50	550	100	SKIN	D.Lgs 81/08
VLE	PRT	275	50	550	100	SKIN	
NDS/NDSCh	POL	260		520		SKIN	
TLV	ROU	275	50	550	100	SKIN	
WEL	GBR	274	50	548	100	SKIN	
OEL	EU	275	50	550	100	SKIN	D.Lgs 81/08

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,635	mg/l
Normal value in marine water	0,064	mg/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value for water, intermittent release	6,35	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,29	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				36 mg/kg bw/d				
Inhalation			33 mg/m3	33 mg/m3	550 mg/m3			275 mg/m3
Skin				320 mg/kg bw/d				796 mg/kg bw/d

Amines, polyethylenepoly-, triethylenetetramine fraction

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,19	mg/l
Normal value in marine water	0,038	mg/l
Normal value for fresh water sediment	95,5	mg/kg
Normal value for marine water sediment	19,2	mg/kg
Normal value for the terrestrial compartment	19,1	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		20 mg/kg		0,41 mg/kg				
Inhalation		1600 mg/m3				5380 mg/m3		
Skin	0,43		0,43 mg/cm2	0,25 mg/kg bw/d	0,028		0,028 mg/cm2	0,57 mg/kg bw/d

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

Quartz (respirable fraction)

Threshold Limit Value

Type	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	0,025				RESP
VLE	PRT	0,025				RESP
NDS/NDSCh	POL	0,3				RESP
TLV	ROU	0,1				RESP
WEL	GBR	0,1				RESP
OEL	EU	0,1				RESP
TLV-ACGIH		0,025				RESP

2,4,6-tris(dimethylaminomethyl)phenol

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,046	mg/l
Normal value in marine water	0,0046	mg/l
Normal value for fresh water sediment	0,2621	mg/kg/d
Normal value for marine water sediment	0,02621	mg/kg/d
Normal value for water, intermittent release	0,46	mg/l
Normal value of STP microorganisms	0,2	mg/l
Normal value for the terrestrial compartment	0,0254	mg/kg/d

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				0,075 mg/kg bw/d				
Inhalation		0,13 mg/m3		0,13 mg/m3		2,1 mg/m3		0,53 mg/m3
Skin		0,075 mg/kg bw/d		0,075 mg/kg bw/d		0,6 mg/kg bw/d		0,15 mg/kg bw/d

2-methoxypropyl acetate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	28	5	56	10	SKIN	
MAK	DEU	27	5	54	10	SKIN	Hinweis
VLA	ESP	28	5	220	40		
NDS/NDSCh	POL	100		200			

2-METHOXYPROPANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	19	5	38	10	SKIN	
MAK	DEU	19	5	38	10	SKIN	Hinweis
VLA	ESP	19	5				

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 ; 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.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

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

HAND PROTECTION
Handle with protective gloves compliant with standard EN 374, in butyl rubber (0.7 mm) or viton (0.4 mm) and with a permeation time of at least 60 min. The permeation time may vary depending on the glove manufacturer. In the case of a mixture consisting of several substances, it is not possible to accurately estimate the protection time of the gloves. Gloves must be checked before being used and must be replaced as soon as they are damaged or worn. Use an appropriate technique for removing gloves to avoid skin contact with the product. Wash and dry your hands.

SKIN PROTECTION
Wear category III 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 tight-fitting safety goggles or closed protective visors complying with EN 166 and EN 165. Do not use ocular lenses.
RESPIRATORY PROTECTION
Exposed workers must wear an appropriate half-face mask of respiratory protection approved according to EN 140 and / or EN 136, with A1-P2 filters (white-brown color code).
In the event of possible saturation of the environment and / or lack or absence of oxygen, the use of an auto-protector or air supply respirator is recommended.
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

Properties		Value	Information
Appearance		paste	
Colour		various colors	
Odour		amino	
Odour threshold		not determined	
Melting point / freezing point		-15,4 °C	Substance:benzyl alcohol
Initial boiling point		205 °C	Substance:benzyl alcohol
Boiling range		not determined	
Flammability		not available	Reason for missing data:as a paste
Lower explosive limit		not determined	
Upper explosive limit		not determined	
Flash point	>	60 °C	
Auto-ignition temperature		not determined	
Decomposition temperature		not determined	
pH		not available	Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Kinematic viscosity		not available	Substance:benzyl alcohol Temperature: 20 °C
Dynamic viscosity		5,84 mPa.s	
Solubility		not determined	
Partition coefficient: n-octanol/water		1,05	Substance:benzyl alcohol
Vapour pressure		7 Pa	Substance:benzyl alcohol Temperature: 20 °C
Density and/or relative density		1,52 g/cm3	
Relative vapour density		not determined	
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

Evaporation rate	not determined	
Total solids (250°C / 482°F)	86,62 %	
VOC (Directive 2010/75/EU)	2,05 % - 31,16	g/litre

SECTION 9. Physical and chemical properties ... / >>

VOC (volatile carbon)	1,09 %	- 16,58	g/litre
Water solubility	40 g/l @ 25°C benz		

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances under normal conditions of use.

benzyl alcohol
Decomposes at temperatures above 870°C/1598°F.Possibility of explosion.
2-methoxy-1-methylethyl acetate
Stable in normal conditions of use and storage.
With the air it may slowly develop peroxides that explode with an increase in temperature.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

benzyl alcohol
May react dangerously with: hydrobromic acid,iron,oxidising agents,sulphuric acid.Risk of explosion on contact with: phosphorus trichloride.
3-aminomethyl-3,5,5-trimethylcyclohexylamine
May react dangerously with: strong oxidising agents,concentrated inorganic acids.
2-methoxy-1-methylethyl acetate
May react violently with: oxidising substances,strong acids,alkaline metals.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

benzyl alcohol
Avoid exposure to: air,sources of heat,naked flames.
3-aminomethyl-3,5,5-trimethylcyclohexylamine
Avoid contact with: strong acids,strong oxidants.

10.5. Incompatible materials

benzyl alcohol
Incompatible with: sulphuric acid,oxidising substances,aluminium.
2-methoxy-1-methylethyl acetate
Incompatible with: oxidising substances,strong acids,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.

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

2-methoxy-1-methylethyl acetate
The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Information on likely routes of exposure

2-methoxy-1-methylethyl acetate
WORKERS: inhalation; contact with the skin.

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

SECTION 11. Toxicological information ... / >>

2-methoxy-1-methylethyl acetate
Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

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:	>2000 mg/kg

Corrosive to the respiratory tract.

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with TETA -POLYMER

LD50 (Oral):	> 16000 mg/kg

PHENOL, STYRENATED

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	> 2000 mg/kg rat
LC50 (Inhalation mists/powders):	4,9 mg/l/4h rat

2-piperazin-1-ylethylamine

LD50 (Dermal):	866 mg/kg rabbit
LD50 (Oral):	2140 mg/kg rat
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)

benzyl alcohol

LD50 (Dermal):	2000 mg/kg rabbit
LD50 (Oral):	1230 mg/kg rat
LC50 (Inhalation vapours):	> 4,178 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)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

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)

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

LD50 (Dermal):	> 2000 mg/kg/ bw rabbit
LD50 (Oral):	1030 mg/kg rat
LC50 (Inhalation vapours):	> 5,01 mg/l/4h rat

SILICON DIOXIDE

LD50 (Dermal):	> 5000 mg/kg rabbit
LD50 (Oral):	> 5000 mg/kg rat
LC50 (Inhalation mists/powders):	0,139 mg/l/4h rat

A (ISOPROPYL) NAPHTHALENE

LD50 (Dermal):	> 4000 mg/kg rat
LD50 (Oral):	> 4000 mg/kg rat
LC50 (Inhalation vapours):	> 5,6 mg/l rat

2-methoxy-1-methylethyl acetate

LD50 (Dermal):	> 5000 mg/kg rabbit
LD50 (Oral):	> 5000 mg/kg rat
LC50 (Inhalation mists/powders):	> 2000 ppm/3h rat

Amines, polyethylenepoly-, triethylenetetramine fraction

LD50 (Dermal):	1465 mg/kg rabbit
LD50 (Oral):	1716 mg/kg rat

2,4,6-tris(dimethylaminomethyl)phenol

LD50 (Dermal):	> 1 mg/kg rat

SECTION 11. Toxicological information ... / >>

LD50 (Oral): 2169 mg/kg rat

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

Suspected of damaging fertility or the unborn child

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

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

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

12.1. Toxicity

2-piperazin-1-ylethylamine	
LC50 - for Fish	2190 mg/l/96h
EC50 - for Crustacea	58 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h
2,4,6-tris(dimethylaminomethyl)phenol	
LC50 - for Fish	175 mg/l/96h Cyorinus carpio
Chronic NOEC for Algae / Aquatic Plants	6,25 mg/l Scenedesmus subspicatus
2-methoxy-1-methylethyl acetate	
LC50 - for Fish	100 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 500 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Selenastrum capricornutum
Chronic NOEC for Fish	47,5 mg/l Oryzias latipes
Chronic NOEC for Crustacea	> 100 mg/l Daphnia magna

SECTION 12. Ecological information ... / >>

SILICON DIOXIDE
LC50 - for Fish > 10000 mg/l/96h Brachyodanio rerio

benzyl alcohol
LC50 - for Fish 460 mg/l/96h Pimephales promelas
EC50 - for Crustacea 55 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants 770 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Crustacea 51 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants 310 mg/l 72h

A (ISOPROPYL) NAPHTHALENE
LC50 - for Fish > 0,5 mg/l/96h Leuciscus idus
EC50 - for Crustacea 0,16 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea 0,013 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants 0,15 mg/l Desmodesmus subspicatus

PHENOL, STYRENATED
LC50 - for Fish 14,8 mg/l/96h
EC50 - for Crustacea 5 mg/l/48h
EC50 - for Algae / Aquatic Plants 3,14 mg/l/72h
Chronic NOEC for Crustacea 0,115 mg/l 21d

Amines, polyethylenepoly-, triethylenetetramine fraction
LC50 - for Fish 330 mg/l/96h
EC50 - for Crustacea 31,1 mg/l/48h
EC50 - for Algae / Aquatic Plants 20 mg/l/72h

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with TETA -POLYMER
LC50 - for Fish 10 mg/l/96h

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
LC50 - for Fish 110 mg/l/96h
EC50 - for Crustacea 23 mg/l/48h
EC50 - for Algae / Aquatic Plants > 50 mg/l/72h

12.2. Persistence and degradability

2-piperazin-1-ylethylamine
NOT rapidly degradable

2,4,6-tris(dimethylaminomethyl)phenol
NOT rapidly degradable

2-methoxy-1-methylethyl acetate
Solubility in water > 10000 mg/l
Rapidly degradable

benzyl alcohol
Rapidly degradable

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Solubility in water 1000 - 10000 mg/l
NOT rapidly degradable

PHENOL, STYRENATED
NOT rapidly degradable

Amines, polyethylenepoly-, triethylenetetramine fraction
NOT rapidly degradable

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with TETA -POLYMER
NOT rapidly degradable

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with

SECTION 12. Ecological information ... / >>

3-aminomethyl-3,5,5-trimethylcyclohexylamine
NOT rapidly degradable

12.3. Bioaccumulative potential

2-piperazin-1-ylethylamine
Partition coefficient: n-octanol/water -1,48

2-methoxy-1-methylethyl acetate
Partition coefficient: n-octanol/water 1,2

benzyl alcohol
Partition coefficient: n-octanol/water 1,1
BCF 1,37

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Partition coefficient: n-octanol/water 3,6 @ 25 °C and pH 7

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

PBT substances contained:
2-piperazin-1-ylethylamine

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.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 1760

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, N.O.S. (2-piperazin-1-ylethylamine, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
IMDG: CORROSIVE LIQUID, N.O.S. (2-piperazin-1-ylethylamine, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
IATA: CORROSIVE LIQUID, N.O.S. (2-piperazin-1-ylethylamine, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)

SECTION 14. Transport information ... / >>

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: III

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80 Special provision: 274	Limited Quantities: 5 L	Tunnel restriction code: (E)
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: E2

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

Product
Point 3 - 40
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

SECTION 15. Regulatory information ... / >>

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 performed for the following contained substances
PHENOL, STYRENATED
2-piperazin-1-ylethylamine
benzyl alcohol
3-aminomethyl-3,5,5-trimethylcyclohexylamine
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
A (ISOPROPYL) NAPHTHALENE
2-methoxy-1-methylethyl acetate
Amines, polyethylenepoly-, triethylenetetramine fraction
2,4,6-tri(dimethyl-aminomethyl) phenol
This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

SECTION 16. Other information

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

Flam. Liq. 3	Flammable liquid, category 3
Repr. 2	Reproductive toxicity, category 2
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
Skin Corr. 1	Skin corrosion, 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
Skin Sens. 1A	Skin sensitization, category 1A
STOT SE 3	Specific target organ toxicity - single exposure, category 3
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
H226	Flammable liquid and vapour.
H361	Suspected of damaging fertility or the unborn child.
H311	Toxic in contact with skin.
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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
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.
EUH071	Corrosive to the respiratory tract.

Use descriptor system:

ERC	8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC	8e	Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
PC	1	Adhesives, sealants
PROC	10	Roller application or brushing
PROC	11	Non industrial spraying
PROC	19	Manual activities involving hand contact

SECTION 16. Other information ... / >>

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
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- 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
- vPvM: Very persistent and very mobile
- 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)
23. Delegated Regulation (UE) 2023/707

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

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 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 / 11 / 12 / 14 / 15.