

## Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

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

#### 1.1. Product identifier

Code: **160**  
Product name: **W3 IMPERMEABILIZZANTE (B)**  
UFI: **C5C0-40E3-P009-28QF**

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

Intended use: **TRICOMPONENT EPOXY COATING.**

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

Name: **NORD RESINE S.p.A.**  
Full address: **Via Fornace Vecchia, 79**  
District and Country: **31058 Susegana (TV)  
Italia**  
Tel.: **+39 0438-437511**  
Fax: **+39 0438-435155**  
e-mail address of the competent person responsible for the Safety Data Sheet: **annabreda@nordresine.com**  
Supplier: **NORD RESINE S.p.A.**

#### 1.4. Emergency telephone number

For urgent inquiries refer to:

**Ireland**  
**National Poisons Information Centre**  
**+353 018092166**  
**+353 018092566**

**Malta**  
**Malta Competition and Consumer Affairs Authority (MCCAA)**  
**+356 2395 2000**

**Belgium**  
**Centre Antipoisons: +32 022649636**

**Germany**  
**BfR Bundesinstitut für Risikobewertung: +49 30184120**

**Netherlands**  
**National Poisons Information Center / University Medical Center Utrecht**  
**+31 88 75 585 61**

**Croatia**  
**Croatian Institute of Public Health, Division for Toxicology: +38514686910**

**Sveden**  
**Swedish Poisons Information Centre: +46104566750**

### 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.

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

## Hazard classification and indication:

Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
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.

**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:

<b>H318</b>	Causes serious eye damage.
<b>H315</b>	Causes skin irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H411</b>	Toxic to aquatic life with long lasting effects.

Precautionary statements:

<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P280</b>	Wear protective gloves / eye protection / face protection.
<b>P310</b>	Immediately call a POISON CENTER / doctor.
<b>P273</b>	Avoid release to the environment.
<b>P391</b>	Collect spillage.
<b>P261</b>	Avoid breathing dust / fume / gas / mist / vapours / spray.

**Contains:**

Fatty acids, C18-unsatd, dimers, polymers with tall-oil fatty acids and triethylenetetramine  
Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)]  
2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL  
MALEIC ANHYDRIDE  
Amines, polyethylenepoly-, triethylenetetramine fraction  
Amines, polyethylenepoly-, tetraethylenepentamine fraction  
N,N-dimethyl-1,3-diaminopropane

Product not intended for uses provided for by Directive 2004/42/EC.

**2.3. Other hazards**On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.**SECTION 3. Composition/information on ingredients**

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

#### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>Fatty acids, C18-unsatd, dimers, polymers with tall-oil fatty acids and triethylenetetramine</b>		
INDEX	20 ≤ x < 25	Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411
EC	500-191-5	
CAS	68082-29-1	
REACH Reg.	01-2119972320-44	
<b>1-METHOXY-2-PROPANOL</b>		
INDEX	603-064-00-3 5 ≤ x < 7	Flam. Liq. 3 H226, STOT SE 3 H336
EC	203-539-1	
CAS	107-98-2	
REACH Reg.	01-2119457435-35	
<b>Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)]</b>		
INDEX	3 ≤ x < 5	Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC	885-937-0	
CAS	180583-06-6	
<b>2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL</b>		
INDEX	603-069-00-0 1 ≤ x < 3	Acute Tox. 4 H302, Skin Corr. 1C H314, Eye Dam. 1 H318 ATE Oral: 500 mg/kg
EC	202-013-9	
CAS	90-72-2	
REACH Reg.	01-2119560597-27	
<b>N,N-dimethyl-1,3-diaminopropane</b>		
INDEX	612-061-00-6 0,5 ≤ x < 1	Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317 LD50 Oral: 410 mg/kg, LD50 Dermal: >1000 mg/kg
EC	203-680-9	
CAS	109-55-7	
REACH Reg.	01-2119486842-27	
<b>Amines, polyethylenepoly-, tetraethylenepentamine fraction</b>		
INDEX	0,1 ≤ x < 0,5	Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411 ATE Oral: 500 mg/kg, LD50 Dermal: 1260 mg/kg
EC	292-587-7	
CAS	90640-66-7	
REACH Reg.	01-2119487290-37	
<b>Amines, polyethylenepoly-, triethylenetetramine fraction</b>		
INDEX	0,1 ≤ x < 0,5	Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412 ATE Oral: 500 mg/kg, ATE Dermal: 1100 mg/kg
EC	292-588-2	
CAS	90640-67-8	
REACH Reg.	01-2119487919-13	
<b>MALEIC ANHYDRIDE</b>		
INDEX	607-096-00-9 0 < x < 0,001	Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr. 1B H314, Eye Dam. 1 H318, Resp. Sens. 1 H334, Skin Sens. 1A H317, EUH071 Skin Sens. 1A H317: ≥ 0,001% LD50 Oral: 1090 mg/kg
EC	203-571-6	
CAS	108-31-6	
REACH Reg.	01-2119472428-31	

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

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

**EYES:** Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

**SKIN:** Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.

**INGESTION:** Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

**INHALATION:** Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops

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

breathing, administer artificial respiration. Get medical advice/attention.

**Rescuer protection**

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

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

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

Immediately call a POISON CENTER / doctor.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment: see section 4.1

**Means to have available in the workplace for specific and immediate treatment**

Running water for skin and eye wash.

**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

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

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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. 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:

CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci
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 France Décret 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 μεταλλαξιογόνους παράγοντες κατά την εργασία"»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
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"
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
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** ... / >>

**1-METHOXY-2-PROPANOL**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
TLV	CZE	270	72,09	550	146,85	SKIN
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
VLA	ESP	375	100	568	150	SKIN
VLEP	FRA	188	50	375	100	SKIN
TLV	GRC	360	100	1080	300	
AK	HUN	375	100	568	150	SKIN
GVI/KGVI	HRV	375	100	568	150	
VLEP	ITA	375	100	568	150	SKIN Allegato XXXVIII D.Lgs. 81/08
TGG	NLD	375		563		SKIN
VLE	PRT	375	100	568	150	
NDS/NDSch	POL	180		360		SKIN
TLV	ROU	375	100	568	150	SKIN
MV	SVN	375	100	568	150	SKIN
WEL	GBR	375	100	560	150	SKIN
OEL	EU	375	100	568	150	SKIN
TLV-ACGIH		184	50	368	100	

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	10	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	52,3	mg/kg
Normal value for marine water sediment	5,2	mg/kg
Normal value for water, intermittent release	100	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	4,59	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		33 mg/kg bw/d				
Inhalation		NPI	NPI	43,9 mg/m <sup>3</sup>	553,5 mg/m <sup>3</sup>	553,5 mg/m <sup>3</sup>	NPI	369 mg/m <sup>3</sup>
Skin		NPI	NPI	78 mg/kg bw/d	NPI	NPI	NPI	183 mg/kg bw/d

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

#### MALEIC ANHYDRIDE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
TLV	CZE	1	0,245	2	0,49	
AGW	DEU	0,081	0,02	0,081	0,02	11
MAK	DEU	0,081	0,02	0,081 (C)	0,02 (C)	C = 0,20 mg/m <sup>3</sup>
VLA	ESP	0,4	0,1			
VLEP	FRA			1		
TLV	GRC	1				
AK	HUN	0,08	0,2	0,08	0,2	
GVI/KGVI	HRV	0,41	0,1	0,8	0,2	INHAL
GVI/KGVI	HRV	0,41	0,1	0,8	0,2	SKIN
NDS/NDSch	POL	0,5		1		SKIN
TLV	ROU	1	0,25	3	0,75	
ПДК	RUS			1		n + a, A
MV	SVN	0,41	0,1	0,41	0,1	
WEL	GBR	1		3		
TLV-ACGIH		0,01	0,0025			INHAL

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,038	mg/l
Normal value in marine water	0,004	mg/l
Normal value for fresh water sediment	0,296	mg/kg/d
Normal value for marine water sediment	0,03	mg/kg/d
Normal value of STP microorganisms	44,6	mg/l
Normal value for the terrestrial compartment	0,037	mg/kg/d

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					0,2 mg/m <sup>3</sup>	0,2 mg/m <sup>3</sup>	0,081 mg/m <sup>3</sup>	0,081 mg/m <sup>3</sup>

#### N,N-dimethyl-1,3-diaminopropane

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0728	mg/l
Normal value in marine water	0,00728	mg/l
Normal value for fresh water sediment	0,735	mg/kg/d
Normal value for marine water sediment	0,0735	mg/kg/d
Normal value for marine water, intermittent release	0,34	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,104	mg/kg/d

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation								1,2 mg/m <sup>3</sup>

#### Amines, polyethylenepoly-, triethylenetetramine fraction

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0268	mg/l
Normal value for fresh water sediment	8,572	mg/kg/d
Normal value for marine water sediment	0,8572	mg/kg/d
Normal value for marine water, intermittent release	0,2	mg/l
Normal value for fresh water, intermittent release	0,02	mg/l
Normal value of STP microorganisms	0,13	mg/l

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,14 mg/kg bw/d				
Inhalation				0,096 mg/m <sup>3</sup>			VND	0,54 mg/m <sup>3</sup>

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#### Fatty acids, C18-unsatd, dimers, polymers with tall-oil fatty acids and triethylenetetramine

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00434	mg/l
Normal value in marine water	0,00043	mg/l
	4	
Normal value for fresh water sediment	434,02	mg/kg
Normal value for marine water sediment	43,4	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,56 mg/kg bw/d				
Inhalation				0,97 mg/m3				3,9 mg/m3
Skin				0,56 mg/kg bw/d				1,1 mg/kg bw/d

#### Amines, polyethylenepoly-, tetraethylenepentamine fraction

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,01	mg/l
Normal value in marine water	0,001	mg/l
Normal value for fresh water sediment	3,198	mg/kg/d
Normal value for marine water sediment	0,3198	mg/kg/d
Normal value for marine water, intermittent release	0,068	mg/l
Normal value for fresh water, intermittent release	0,0068	mg/l
Normal value of STP microorganisms	4,6	mg/l
Normal value for the terrestrial compartment	2,5	mg/kg/d

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0,21 mg/kg bw/d				
Inhalation	HIGH		HIGH	0,14 mg/m3	HIGH		HIGH	0,82 mg/m3
Skin	HIGH	HIGH	0,0208 mg/cm2	NPI	HIGH	HIGH	0,25 mg/cm2	NPI

#### 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	0,005	mg/l
Normal value for marine water, intermittent release	0,46	mg/l
Normal value of STP microorganisms	0,262	mg/l
Normal value for the terrestrial compartment	0,025	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	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

**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



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

well aired through effective local aspiration.  
 When choosing personal protective equipment, ask your chemical substance supplier for advice.  
 Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves.

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

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.

Protect your hands with gloves of the following type:

Material: Laminated film - LLDPE

Thickness: 0,06 mm

Breakthrough time: 480 min

Material: Butyl rubber (IIR)

Thickness: 0,5 mm

Breakthrough time: 480 min

#### 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 ISO 16321).

#### RESPIRATORY PROTECTION

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. 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).

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

### SECTION 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	yellow	
Odour	amino	
Melting point / freezing point	not determined	Reason for missing data: not determined
Initial boiling point	> 100 °C	
Flammability	not determined	
Lower explosive limit	not determined	Reason for missing data: not determined
Upper explosive limit	not determined	Reason for missing data: not determined
Flash point	> 65 °C	
Auto-ignition temperature	not determined	Reason for missing data: not determined
Decomposition temperature	not determined	Reason for missing data: not determined
pH	11	
Kinematic viscosity	not determined	Reason for missing data: not determined
Solubility	partially soluble in water	
Partition coefficient: n-octanol/water	not applicable	
Vapour pressure	not determined	Reason for missing data: not determined
Density and/or relative density	1,02	
Relative vapour density	not determined	Reason for missing data: not determined
Particle characteristics	not applicable	

#### 9.2. Other information

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

## 9.2.1. Information with regard to physical hazard classes

Information not available

## 9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU) 5,94 % - 60,54 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.

## 1-METHOXY-2-PROPANOL

Dissolves various plastic materials. Stable in normal conditions of use and storage.

Absorbs and dissolves in water and in organic solvents. With air it may slowly form explosive peroxides.

**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.

## 1-METHOXY-2-PROPANOL

May react dangerously with: strong oxidising agents, strong acids.

**10.4. Conditions to avoid**

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

## 1-METHOXY-2-PROPANOL

Avoid exposure to: air.

**10.5. Incompatible materials**

## 1-METHOXY-2-PROPANOL

Incompatible with: oxidising substances, strong acids, alkaline metals.

## N,N-dimethyl-1,3-diaminopropane

Incompatible with: copper, strong acids, oxidising agents, brass.

## Amines, polyethylenepoly-, tetraethylenepentamine fraction

Incompatible with: acids, chlorinated hydrocarbons, oxidising agents, copper, cobalt, nickel, copper alloys.

## 2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL

Incompatible with: organic acids, mineral acids, sodium hypochlorite.

**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.

## N,N-dimethyl-1,3-diaminopropane

In decomposition develops: nitrous gases, carbon dioxide, carbon monoxide.

## Amines, polyethylenepoly-, tetraethylenepentamine fraction

May develop: nitrous gases.

## 2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL

In decomposition develops: nitric acid, ammonia, nitrogen oxides (NO<sub>x</sub>), carbon dioxide.**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

**SECTION 11. Toxicological information ... / >>****1-METHOXY-2-PROPANOL**

WORKERS: inhalation; contact with the skin.

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

Delayed and immediate effects as well as chronic effects from short and long-term exposure**1-METHOXY-2-PROPANOL**

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product. 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.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture: Not classified (no significant component)  
ATE (Oral) of the mixture: >2000 mg/kg  
ATE (Dermal) of the mixture: Not classified (no significant component)

**1-METHOXY-2-PROPANOL**

LD50 (Dermal): 2000 mg/kg Rat  
LD50 (Oral): 4016 mg/kg Rat

**MALEIC ANHYDRIDE**

LD50 (Dermal): 2620 mg/kg Rabbit  
LD50 (Oral): 1090 mg/kg Rat

**N,N-dimethyl-1,3-diaminopropane**

LD50 (Dermal): > 1000 mg/kg  
LD50 (Oral): 410 mg/kg

**Amines, polyethylenepoly-, triethylenetetramine fraction**

LD50 (Dermal): 550 mg/kg Rabbit  
ATE (Dermal): 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)  
LD50 (Oral): 2500 mg/kg Rat

**Fatty acids, C18-unsatd, dimers, polymers with tall-oil fatty acids and triethylenetetramine**

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

**Amines, polyethylenepoly-, tetraethylenepentamine fraction**

LD50 (Dermal): 1260 mg/kg Rabbit  
LD50 (Oral): 3221 mg/kg Rat

**2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL**

LD50 (Oral): 2169 mg/kg Rat  
ATE (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)

SKIN CORROSION / IRRITATION

Causes skin irritation

**N,N-dimethyl-1,3-diaminopropane**

Species: rabbit  
Result: causes burns  
Method: OECD 404

**Amines, polyethylenepoly-, triethylenetetramine fraction**

Species: rabbit  
Result: corrosive  
Method: OECD 404

**SECTION 11. Toxicological information ... / >>****2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL**

Species: rabbit  
Result: corrosive  
Method: OECD 404

**SERIOUS EYE DAMAGE / IRRITATION**

Causes serious eye damage

Amines, polyethylenepoly-, triethylenetetramine fraction  
Species: rabbit  
Result: irreversible damage  
Method: OECD 405

**RESPIRATORY OR SKIN SENSITISATION**

Sensitising for the skin

**MALEIC ANHYDRIDE**  
Species: rabbit  
Result: skin sensitization  
Method: OECD 406

Amines, polyethylenepoly-, triethylenetetramine fraction  
Species: Guinea pig  
Result: sensitizing  
Method: OECD 406

**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**

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

**12.1. Toxicity**

**1-METHOXY-2-PROPANOL**  
LC50 - for Fish > 1000 mg/l/96h  
EC50 - for Crustacea > 21100 mg/l/48h

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

**MALEIC ANHYDRIDE**  
 LC50 - for Fish 75 mg/l/96h Oncorhynchus mykiss  
 EC50 - for Crustacea 42,81 mg/l/48h Daphnia magna  
 EC50 - for Algae / Aquatic Plants 74,35 mg/l/72h Pseudokirchneriella subcapitata  
 Chronic NOEC for Crustacea 10 mg/l Daphnia magna

Amines, polyethylenepoly-, triethylenetetramine fraction  
 LC50 - for Fish 330 mg/l/96h Fish  
 EC50 - for Crustacea 31 mg/l/48h Daphnia  
 EC10 for Algae / Aquatic Plants 1,34 mg/l/72h

Fatty acids, C18-unsatd, dimers, polymers with tall-oil fatty acids and triethylenetetramine  
 LC50 - for Fish 7,07 mg/l/96h Fish

Amines, polyethylenepoly-, tetraethylenepentamine fraction  
 LC50 - for Fish 420 mg/l/96h Fish  
 EC50 - for Crustacea 24,1 mg/l/48h Daphnia  
 EC50 - for Algae / Aquatic Plants 6,8 mg/l/72h  
 EC10 for Algae / Aquatic Plants 0,5 mg/l/72h

Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)]  
 EC50 - for Crustacea 10 mg/l/48h Daphnia magna

2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL  
 LC50 - for Fish 175 mg/l/96h Cyprinus carpio

#### 12.2. Persistence and degradability

1-METHOXY-2-PROPANOL  
 Solubility in water 1000 - 10000 mg/l  
 Rapidly degradable

MALEIC ANHYDRIDE  
 Solubility in water > 10000 mg/l  
 Entirely degradable

Amines, polyethylenepoly-, triethylenetetramine fraction  
 NOT rapidly degradable

Amines, polyethylenepoly-, tetraethylenepentamine fraction  
 NOT rapidly degradable

2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL  
 Solubility in water > 10000 mg/l  
 NOT rapidly degradable

#### 12.3. Bioaccumulative potential

1-METHOXY-2-PROPANOL  
 Partition coefficient: n-octanol/water < 1

MALEIC ANHYDRIDE  
 Partition coefficient: n-octanol/water -2,78

Amines, polyethylenepoly-, tetraethylenepentamine fraction  
 Partition coefficient: n-octanol/water -2,6

2,4,6-TRIS(DIMETHYLAMINOMETHYL) PHENOL  
 Partition coefficient: n-octanol/water -0,66

#### 12.4. Mobility in soil

Information not available

#### 12.5. Results of PBT and vPvB assessment

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

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

### 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.

The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.

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 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity  $\leq$  5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity  $\leq$  5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity  $\leq$  5Kg or 5L, is not submitted to IATA dangerous goods regulations.

#### 14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, C18-unsatd, dimers, polymers with tall-oil fatty acids and triethylenetetramine; Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)])

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, C18-unsatd, dimers, polymers with tall-oil fatty acids and triethylenetetramine; Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)])

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, C18-unsatd, dimers, polymers with tall-oil fatty acids and triethylenetetramine; Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)])

#### 14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9



IMDG: Class: 9 Label: 9



IATA: Class: 9 Label: 9



#### 14.4. Packing group

ADR / RID, IMDG, IATA: III

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

#### 14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: Environmentally Hazardous



#### 14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 lt	Tunnel restriction code: (-)
	Special provision: 274, 335, 375, 601		
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 lt	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

#### 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

<u>Product</u>	
Point	3 - 40
<u>Contained substance</u>	
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  $\geq$  than 0,1%.

Substances subject to authorisation (Annex XIV REACH)  
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:  
None

Substances subject to the Rotterdam Convention:  
None

Substances subject to the Stockholm Convention:  
None

Healthcare controls  
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

#### 15.2. Chemical safety assessment

A chemical safety assessment has 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:

<b>Flam. Liq. 3</b>	Flammable liquid, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>STOT RE 1</b>	Specific target organ toxicity - repeated exposure, category 1
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Skin Corr. 1C</b>	Skin corrosion, category 1C
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Resp. Sens. 1</b>	Respiratory sensitization, category 1
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Skin Sens. 1A</b>	Skin sensitization, category 1A
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H226</b>	Flammable liquid and vapour.
<b>H302</b>	Harmful if swallowed.
<b>H312</b>	Harmful in contact with skin.
<b>H372</b>	Causes damage to organs through prolonged or repeated exposure.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H334</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>H317</b>	May cause an allergic skin reaction.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH071</b>	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
- 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**



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

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
24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI 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
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Changes to previous review:**

The following sections were modified:

01 / 02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.