

## Safety Data Sheet

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

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

#### 1.1. Product identifier

Code: 44532575-01-  
Product name: GEOACRIL 2K - FONDO/ISOLANTE POLIACRILICO WB 2K POLYACRYLIC ISOLATOR/SEALER WB 2K TRASPARENTE/CLEAR

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

Intended use: Water borne 2K polyacrylic

Identified Uses	Industrial	Professional	Consumer
Painting of wood for interior, furnitures and accessories	SU: 18. PROC: 7. AC: 11. PC: 9a.	-	-

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

Name: ALCEA S.p.A.  
Full address: Via Piemonte 18  
District and Country: 20030 Senago (MI)  
Italy

Tel. +39.02-99014-1 (centralino)  
Fax +39.02-99014-300

e-mail address of the competent person responsible for the Safety Data Sheet: Ufficio Tecnico (msds@alcea.com)

Supplier: Ufficio Tecnico (msds@alcea.com)

#### 1.4. Emergency telephone number

For urgent inquiries refer to

Ireland: (+353) 18092566  
United Kingdom: 111

ALCEA Technical Office Tel. +39.02-99014-220/221 (from monday to friday 8.00-12.00 a.m./1.00-5.00 p.m.)

**CENTRI ANTIVELENI (CAV)**  
- Osp. Niguarda Ca' Granda  
Piazza Ospedale Maggiore, 3 - 20162 - Milano - Tel: 02-66101029  
- Az. Osp. Papa Giovanni XXIII  
Piazza OMS, 1 - 24127 - Bergamo - Tel: 800883300  
- CAV Centro Nazionale di Informazione Tossicologica  
Via Salvatore Maugeri, 10 - 27100 - Pavia - Tel: 0382-24444  
- Az. Osp. Careggi - U.O. Tossicologia Medica  
L.go Brambilla, 3 - 50134 - Firenze - Tel: 055-7947819  
- CAV Policlinico A. Gemelli  
L.go A. Gemelli, 8 - 00168 - Roma - Tel: 06-3054343  
- CAV Policlinico Umberto I  
V.le del Policlinico, 155 - 00161 - Roma - Tel: 06-49978000  
- CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza e Accettazione DEA  
Piazza Sant'Onofrio, 4 - 00165 - Roma - Tel: 06-68593726  
- Az. Osp. Univ. Foggia  
V.le Luigi Pinto, 1 - 71122 - Foggia - Tel: 800183459  
- Az. Osp. A. Cardarelli  
Via A. Cardarelli, 9 - 80131 - Napoli - Tel: 081-5453333  
- Azienda Ospedaliera Integrata Verona  
Piazzale Aristide Stefani, 1 - 37126 - Verona - Tel: 800011858

**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:

Hazardous to the aquatic environment, chronic toxicity, category 3 H412 Harmful 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: --

Hazard statements:

**H412** Harmful to aquatic life with long lasting effects.  
**EUH208** Contains: BENZOTRIAZOLE DERIVATE MIXTURE  
2,4,7,9-TETRAMETIL-5DECINE-4,7-DIOLO  
May produce an allergic reaction.

Precautionary statements:

**P264** Thoroughly wash the contaminated parts after use with soap and water.  
**P280** Wear protective gloves / protective clothing / eye protection / face protection.  
**P302+P352** IN CASE OF CONTACT WITH SKIN: wash with plenty of water / soap  
**P332+P313** If skin irritation occurs: Get medical advice / attention.

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****3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>3-BUTOXY-2-PROPANOL</b>		
CAS	5131-66-8	$2,5 \leq x < 3$
EC	225-878-4	
INDEX	603-052-00-8	
REACH Reg.	01-2119475527-28-XXXX	
<b>SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM</b>		
CAS	64742-95-6	$2,5 \leq x < 3$
EC	265-199-0	
INDEX	649-356-00-4	
REACH Reg.	01-2119486773-24-XXXX	
<b>TRIETHANOLAMINE</b>		
CAS	102-71-6	$1 \leq x < 1,5$
EC	203-049-8	
INDEX		

**SECTION 3. Composition/information on ingredients** ... / >>**2-butoxyethanol**

CAS 111-76-2 1 ≤ x < 1,5 **Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315**  
 EC 203-905-0 **LD50 Oral: 1200 mg/kg, STA Inhalation vapours: 11 mg/l**  
 INDEX 603-014-00-0  
 REACH Reg. 01-2119475108-36-XXXX

**1-METHOXY-2-PROPANOL**

CAS 107-98-2 0,6 ≤ x < 0,7 **Flam. Liq. 3 H226, STOT SE 3 H336**  
 EC 203-539-1  
 INDEX 603-064-00-3  
 REACH Reg. 01-2119457435-35-XXXX

**ETHANEDIOL**

CAS 107-21-1 0,3 ≤ x < 0,35 **Acute Tox. 4 H302, STOT RE 2 H373**  
 EC 203-473-3 **STA Oral: 500 mg/kg**  
 INDEX 603-027-00-1  
 REACH Reg. 01-2119456816-28-XXXX

**BENZOTRIAZOLE DERIVATE MIXTURE**

CAS 0,3 ≤ x < 0,35 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**  
 EC 400-830-7  
 INDEX 607-176-00-3  
 REACH Reg. 01-0000015075-76-XXXX

**2,4,7,9-TETRAMETIL-5DECINE-4,7-DIOLO**

CAS 126-86-3 0,3 ≤ x < 0,35 **Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412**  
 EC 204-809-1  
 INDEX  
 REACH Reg. 01-2119954390-39-XXXX

**2-DIMETHYLAMINOETHANOL**

CAS 108-01-0 0,25 ≤ x < 0,3 **Flam. Liq. 3 H226, Acute Tox. 3 H331, Acute Tox. 4 H302, Acute Tox. 4 H312,**  
**Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335**  
**STOT SE 3 H335: ≥ 5%**  
**STA Oral: 500 mg/kg, STA Dermal: 1100 mg/kg, STA Inhalation**  
**mists/powders: 0,501 mg/l, STA Inhalation vapours: 3 mg/l**  
 EC 203-542-8  
 INDEX 603-047-00-0  
 REACH Reg. 01-2119492298-24-XXXX

**2- (2-BUTOXYETHOXY) ETHANOL**

CAS 112-34-5 0,25 ≤ x < 0,3 **Eye Irrit. 2 H319**  
 EC 203-961-6  
 INDEX 603-096-00-8  
 REACH Reg. 01-2119475104-44-XXXX

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

**SECTION 4. First aid measures****4.1. Description of first aid measures**

**EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

**INHALATION:** Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

**INGESTION:** Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

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

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

Information not available

**SECTION 5. Firefighting measures****5.1. Extinguishing media****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.

**SECTION 5. Firefighting measures** ... / >>**5.2. Special hazards arising from the substance or mixture**

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE  
Do not breathe combustion products.

**5.3. Advice for firefighters**

## GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

## SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

**6.3. Methods and material for containment and cleaning up**

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage****7.1. Precautions for safe handling**

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:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů

## SECTION 8. Exposure controls/personal protection ... / &gt;&gt;

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
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 védelmére
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
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
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)
TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733
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

## TRIETHANOLAMINE

## Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	5	0,805	10	1,16	SKIN
AGW	DEU	1				INHAL
MAK	DEU	1				INHAL
VLA	ESP	5				
TGG	NLD	5				
MV	SVN	5				INHAL
TLV-ACGIH		5				

## 3-BUTOXY-2-PROPANOL

## Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	270	49,14	550	100,1	SKIN

## SECTION 8. Exposure controls/personal protection ... / &gt;&gt;

## 2-BUTOXYETHANOL

## Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
TLV	BGR	98	20	246	50	SKIN
TLV	CZE	100	20,4	200	40,8	SKIN
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
TLV	GRC	120	25			
AK	HUN	98		246		SKIN
GVI/KGVI	HRV	98	20	246	50	SKIN
VLEP	ITA	98	20	246	50	SKIN
TGG	NLD	100		246		SKIN
VLE	PRT	98	20	246	50	SKIN
NDS/NDSch	POL	98		200		SKIN
TLV	ROU	98	20	246	50	SKIN
NPEL	SVK	98	20	246	50	SKIN
MV	SVN	98	20	246	50	SKIN
ESD	TUR	98	20	246	50	SKIN
WEL	GBR	123	25	246	50	SKIN
OEL	EU	98	20	246	50	SKIN
TLV-ACGIH		97	20			

## Predicted no-effect concentration - PNEC

Normal value in fresh water	8,8	mg/l
Normal value in marine water	0,88	mg/l
Normal value for fresh water sediment	34,6	mg/kg
Normal value for marine water sediment	3,46	mg/kg
Normal value for water, intermittent release	9,1	mg/l
Normal value of STP microorganisms	463	mg/l
Normal value for the food chain (secondary poisoning)	20	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		26,7 mg/kg/d		6,3 mg/kg/d				
Inhalation	426 mg/m <sup>3</sup>	147 mg/m <sup>3</sup>		59 mg/m <sup>3</sup>		1,091 mg/m <sup>3</sup>		98 mg/kg
Skin		89 mg/kg/d		75 mg/kg/d		89 mg/kg/d		125 mg/kg/d

## SECTION 8. Exposure controls/personal protection ... / &gt;&gt;

## ETHANEDIOL

## Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	52	20	104	40	SKIN
TLV	CZE	50	19,4	100	38,8	SKIN
AGW	DEU	26	10	52	20	SKIN
MAK	DEU	26	10	52	20	SKIN
VLA	ESP	52	20	104	40	SKIN
VLEP	FRA	52	20	104	40	SKIN
TLV	GRC	125	50	125	50	
AK	HUN	52		104		SKIN
GVI/KGVI	HRV	52	20	104	40	SKIN
VLEP	ITA	52	20	104	40	SKIN
TGG	NLD	52		104		SKIN damp
VLE	PRT	52	20	104	40	SKIN
NDS/NDSch	POL	15		50		SKIN
TLV	ROU	52	20	104	40	SKIN
NPEL	SVK	52	20	104	40	SKIN
MV	SVN	52	20	104	40	SKIN
ESD	TUR	52	20	104	40	SKIN
WEL	GBR	52	20	104	40	SKIN
OEL	EU	52	20	104	40	SKIN
TLV-ACGIH			25		50	
TLV-ACGIH				10		INHAL

## 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	20,9	mg/kg
Normal value for water, intermittent release	10	mg/l
Normal value of STP microorganisms	199,5	mg/l
Normal value for the terrestrial compartment	1,53	mg/kg

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

Route of exposure	Effects on consumers			Effects on workers				
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation			7				35	
			mg/m3				mg/m3	
Skin				53				106
				mg/kg/d				mg/kg/d

## 2-DIMETHYLAMINOETHANOL

## Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
GVI/KGVI	HRV	7,4	2	22	6	
WEL	GBR	7,4	2	22	6	

## Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0661	mg/l
Normal value in marine water	0,00661	mg/l
Normal value for fresh water sediment	0,0529	mg/kg
Normal value for marine water sediment	NEA	
Normal value for water, intermittent release	0,0661	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,0177	mg/kg

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

Route of exposure	Effects on consumers			Effects on workers				
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation								7,4
								mg/m3
Skin								1,04
								mg/kg/d

**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	BGR	375	100	568	150	SKIN
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		568		SKIN
GVI/KGVI	HRV	375	100	568	150	
VLEP	ITA	375	100	568	150	SKIN
TGG	NLD	375		563		SKIN
VLE	PRT	375	100	568	150	
NDS/NDSch	POL	180		360		SKIN
TLV	ROU	375	100	568	150	SKIN
NPEL	SVK	375	100	568	150	SKIN
MV	SVN	375	100	568	150	SKIN
ESD	TUR	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	VND	
Normal value for fresh water sediment	41,6	mg/kg
Normal value for marine water sediment	4,17	mg/kg
Normal value for water, intermittent release	VND	
Normal value of STP microorganisms	100	mg/l
Normal value for the food chain (secondary poisoning)	VND	
Normal value for the terrestrial compartment	2,47	mg/kg
Normal value for the atmosphere	VND	

**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	VND	VND	3,3 mg/kg/d	VND	VND	VND	VND
Inhalation	VND	VND	VND	43,9 mg/m <sup>3</sup>	553,5 mg/m <sup>3</sup>	VND	VND	369 mg/m <sup>3</sup>
Skin	VND	VND	VND	18,1 mg/kg/d	VND	VND	VND	50,6 mg/kg/d

**SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM****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			11	11 mg/kg/d				
Inhalation				32 mg/m <sup>3</sup>		150		150 mg/m <sup>3</sup>
Skin				11 mg/kg/d				25 mg/kg/d



**SECTION 8. Exposure controls/personal protection** ... / >>**2-(2-BUTOXYETHOXY)ETHANOL****Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
TLV	BGR	67,5	10	101,2	15	
TLV	CZE	70	10,36	100	14,8	
AGW	DEU	67	10	100,5 (C)	15 (C)	Hinweis
MAK	DEU	67	10	100,5	15	Hinweis
VLA	ESP	67,5	10	101,2	15	
VLEP	FRA	68	10	101,2	15	
TLV	GRC	67,5	10	101,2	15	
AK	HUN	67,5		101,2		
GVI/KGVI	HRV	67,5	10	101,2	15	
VLEP	ITA	67,5	10	101,2	15	
TGG	NLD	50		100		SKIN
VLE	PRT	67,5	10	101,2	15	
NDS/NDSch	POL	67		100		
TLV	ROU	67,5	10	101,2	15	
NPEL	SVK	67,5	10	101,2	15	
MV	SVN	67,5	10	101,2	15	
ESD	TUR	67,5	10	101,2	15	
WEL	GBR	67,5	10	101,2	15	
OEL	EU	67,5	10	101,2	15	
TLV-ACGIH		66	10			

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	1,1	mg/l
Normal value in marine water	0,11	mg/l
Normal value for fresh water sediment	4,4	mg/kg
Normal value for marine water sediment	0,44	mg/kg
Normal value for water, intermittent release	11	mg/l
Normal value of STP microorganisms	200	mg/l
Normal value for the food chain (secondary poisoning)	56	mg/kg
Normal value for the terrestrial compartment	0,4	mg/kg
Normal value for the atmosphere	VND	

**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	VND	VND	5 mg/kg/d	VND	VND	VND	VND
Inhalation	60,7 mg/m <sup>3</sup>	VND	40,5 mg/m <sup>3</sup>	40,5 mg/m <sup>3</sup>	101,2 mg/m <sup>3</sup>	VND	67,5 mg/m <sup>3</sup>	67,5 mg/m <sup>3</sup>
Skin	VND	VND	VND	50 mg/kg/d	VND	VND	VND	50 mg/kg/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 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.

**HAND PROTECTION**

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

**SKIN PROTECTION**

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

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of

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

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.

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	colourless	
Odour	not available	
Melting point / freezing point	not available	
Initial boiling point	100 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	> 60 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	10-11	
Kinematic viscosity	>20,5 mm <sup>2</sup> /sec (40°C)	
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,038	
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**

Total solids (250°C / 482°F)	31,93 %		
VOC (Directive 2010/75/EU)	7,46 %	- 77,40	g/litre
VOC (volatile carbon)	2,96 %	- 30,68	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.

**ETHANEDIOL**

In the air absorbs moisture. Decomposes at temperatures above 200°C/392°F.

**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.

**SECTION 10. Stability and reactivity** ... / >>**10.3. Possibility of hazardous reactions**

The vapours may also form explosive mixtures with the air.

**2-BUTOXYETHANOL**

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

**ETHANEDIOL**

Risk of explosion on contact with: perchloric acid. May react dangerously with: chlorosulphuric acid, sodium hydroxide, sulphuric acid, phosphorus pentasulphide, chromium (III) oxide, chromyl chloride, potassium perchlorate, potassium dichromate, sodium peroxide, aluminium. Forms explosive mixtures with: air.

**1-METHOXY-2-PROPANOL**

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

**2-(2-BUTOXYETHOXY)ETHANOL**

May react with: oxidising substances. May form peroxides with: oxygen. Develops hydrogen on contact with: aluminium. May form explosive mixtures with: air.

**10.4. Conditions to avoid**

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

**2-BUTOXYETHANOL**

Avoid exposure to: sources of heat, naked flames.

**ETHANEDIOL**

Avoid exposure to: sources of heat, naked flames.

**1-METHOXY-2-PROPANOL**

Avoid exposure to: air.

**2-(2-BUTOXYETHOXY)ETHANOL**

Avoid exposure to: air.

**10.5. Incompatible materials****1-METHOXY-2-PROPANOL**

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

**2-(2-BUTOXYETHOXY)ETHANOL**

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.

**2-BUTOXYETHANOL**

May develop: hydrogen.

**ETHANEDIOL**

May develop: hydroxyacetaldehyde, glyoxal, acetaldehyde, methane, carbon monoxide, hydrogen.

**2-(2-BUTOXYETHOXY)ETHANOL**

May develop: hydrogen.

**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**ETHANEDIOL**

WORKERS: inhalation; contact with the skin.

POPULATION: inhalation of ambient air; contact with the skin of products containing the substance.

**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.

**SECTION 11. Toxicological information ... / >>****2-(2-BUTOXYETHOXY)ETHANOL**

WORKERS: inhalation; contact with the skin.

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

Ingestion initially stimulates the central nervous system; later replaced by a phase of depression. There may be kidney damage, with anuria and uremia. Over-exposure symptoms are: vomiting, drowsiness, difficulty in breathing, convulsions. The lethal dose for humans is approx. 1.4 ml/kg.

**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.

**2-(2-BUTOXYETHOXY)ETHANOL**

May be absorbed by inhalation, ingestion and skin contact; is irritating for the skin and especially for the eyes. May cause damage to the spleen. At room temperature the danger of inhalation is unlikely, due to the low vapour pressure of the substance.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Inhalation - gas) of the mixture:	0,0 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

**TRIETHANOLAMINE**

LD50 (Dermal):	> 2000 mg/kg Rabbit
LD50 (Oral):	4190 mg/kg Rat

**3-BUTOXY-2-PROPANOL**

LD50 (Dermal):	> 2000 mg/kg Rat
LD50 (Oral):	3300 mg/kg Rat

**2-BUTOXYETHANOL**

LD50 (Oral):	1200 mg/kg Guinea pig
LC50 (Inhalation vapours):	2,2 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)

**ETHANEDIOL**

LD50 (Dermal):	9530 mg/kg Rabbit
LD50 (Oral):	> 2000 mg/kg Rat

**2-DIMETHYLAMINOETHANOL**

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)
STA (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)
STA (Inhalation mists/powders):	0,501 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)
STA (Inhalation vapours):	3 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)

**1-METHOXY-2-PROPANOL**

LD50 (Dermal):	13000 mg/kg Rabbit
LD50 (Oral):	5300 mg/kg Rat
LC50 (Inhalation vapours):	54,6 mg/l/4h Rat

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

### BENZOTRIAZOLE DERIVATE MIXTURE

LD50 (Dermal): > 2000 mg/kg Rat  
LD50 (Oral): > 5000 mg/kg Rat  
LC50 (Inhalation mists/powders): 5,8 mg/l/4h Rat

### 2,4,7,9-TETRAMETIL-5DECINE-4,7-DIOLO

LD50 (Dermal): > 2000 mg/kg Rat  
LD50 (Oral): 4600 mg/kg Rat  
LC50 (Inhalation vapours): > 20 mg/l/1h Rat

### 2-(2-BUTOXYETHOXY)ETHANOL

LD50 (Dermal): 2700 mg/kg Rabbit  
LD50 (Oral): 3384 mg/kg Rat

### SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

### SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

### RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

BENZOTRIAZOLE DERIVATE MIXTURE  
2,4,7,9-TETRAMETIL-5DECINE-4,7-DIOLO

### Respiratory sensitization

Information not available

### Skin sensitization

Information not available

### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

### ETHANEDIOL

Available studies have shown no carcinogenic potential. In a carcinogenicity study lasting two years, carried out by the US National Toxicology Program (NTP), in which ethylene glycol was administered in the feed, "no evidence of carcinogenic activity" in male and female B6C3F1 mice was observed (NTP, 1993).

### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

### Adverse effects on sexual function and fertility

Information not available

### Adverse effects on development of the offspring

Information not available

### Effects on or via lactation

Information not available

### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

**SECTION 11. Toxicological information** ... / >>Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARDDoes not meet the classification criteria for this hazard class Viscosity: >20,5 mm<sup>2</sup>/sec (40°C)**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 the aquatic organisms. In the long term, it have negative effects on aquatic environment.

**12.1. Toxicity**

## BENZOTRIAZOLE DERIVATE MIXTURE

LC50 - for Fish	2,8 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	4 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Pseudokirchneriella subcapitata

## 2,4,7,9-TETRAMETIL-5DECINE-4,7-DIOLO

LC50 - for Fish	43 mg/l/96h scophthalmus maximus
EC50 - for Crustacea	91 mg/l/48h daphnia magna
EC50 - for Algae / Aquatic Plants	112 mg/l/72h skeletonema costatum

**12.2. Persistence and degradability**

## TRIETHANOLAMINE

Solubility in water	> 1000000 mg/l
Rapidly degradable	

## 3-BUTOXY-2-PROPANOL

Solubility in water	52000 mg/l
Rapidly degradable	

## 2-BUTOXYETHANOL

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

## ETHANEDIOL

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

## 2-DIMETHYLAMINOETHANOL

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

**SECTION 12. Ecological information** ... / >>

1-METHOXY-2-PROPANOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM	
Rapidly degradable	
BENZOTRIAZOLE DERIVATE MIXTURE	
NOT rapidly degradable	Difficilmente biodegradabile
2-(2-BUTOXYETHOXY)ETHANOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

**12.3. Bioaccumulative potential**

TRIETHANOLAMINE	
Partition coefficient: n-octanol/water	-1,75
BCF	< 3,9
3-BUTOXY-2-PROPANOL	
Partition coefficient: n-octanol/water	1,2
2-BUTOXYETHANOL	
Partition coefficient: n-octanol/water	0,81
ETHANEDIOL	
Partition coefficient: n-octanol/water	-1,36
2-DIMETHYLAMINOETHANOL	
Partition coefficient: n-octanol/water	-0,55
1-METHOXY-2-PROPANOL	
Partition coefficient: n-octanol/water	< 1
2-(2-BUTOXYETHOXY)ETHANOL	
Partition coefficient: n-octanol/water	1

**12.4. Mobility in soil**

TRIETHANOLAMINE	
Partition coefficient: soil/water	1
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM	
Partition coefficient: soil/water	1,78

**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

**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

### 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 according to IMO instruments

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

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

#### Product

Point 3 - 40

#### Contained substance

Point	75	2-methoxypropanol
Point	75	3-BUTOXY-2-PROPANOL REACH Reg.: 01-2119475527-28-XXXX
Point	75	2-butoxyethanol REACH Reg.: 01-2119475108-36-XXXX
Point	75	BENZOTRIAZOLE DERIVATE MIXTURE REACH Reg.: 01-0000015075-76-XXXX
Point	75	2-DIMETHYLAMINOETHANOL REACH Reg.: 01-2119492298-24-XXXX
Point	75	2- (2-BUTOXYETHOXY) ETHANOL REACH Reg.: 01-2119475104-44-XXXX

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%.



## SECTION 15. Regulatory information ... / >>

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

Information not available

### 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. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<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>H331</b>	Toxic if inhaled.
<b>H302</b>	Harmful if swallowed.
<b>H312</b>	Harmful in contact with skin.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H373</b>	May cause 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>H335</b>	May cause respiratory irritation.
<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.

Use descriptor system:

<b>AC</b>	11	Wood articles
<b>PC</b>	9a	Coatings and paints, thinners, paint removers
<b>PROC</b>	7	Industrial spraying
<b>SU</b>	18	Manufacture of furniture

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%

## SECTION 16. Other information ... / >>

- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

### GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)

- 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.

## SECTION 16. Other information ... / >>

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 06 / 09 / 11 / 13 / 14 / 15.