

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

Product name PLT 34 WHITE: BIANCHI,
160, 160 HD,

UFI : G173-K0JK-700K-9DWH

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

Intended use Pad printing ink

1.3. Details of the supplier of the safety data sheet

Name COMEC ITALIA SRL
Full address Piazzale del lavoro 149
District and Country 21044 Cavarina (VA)
ITALIA

Tel. +39 0331 219516

Fax +39 0331 216161

e-mail address of the competent person

responsible for the Safety Data Sheet

Supplier:

info@comec-italia.it

Edgardo Baggini

1.4. Emergency telephone number

For urgent inquiries refer to

Centro Antiveleni di Milano 02 66101029

(Niguarda Ca Granda - Milano)

Centro Antiveleni di Pavia 0382 24444

(Fondazione Maugeri - Pavia)

Centro Antiveleni di Bergamo 800 883300

(Papa Giovanni XXIII - Bergamo)

Centro Antiveleni di Verona 800 011858

(AOUI - Verona)

Centro Antiveleni di Firenze 055 7947819

(Careggi - Firenze)

Centro Antiveleni di Roma 06 3054343

(Agostino Gemelli - Roma)

Centro Antiveleni di Roma 06 49978000

(Umberto I - Roma)

Centro Antiveleni di Roma 06 68593726

(Ospedale pediatrico Bambino Gesù - Roma)

Centro Antiveleni di Napoli 081 5453333

(Antonio Cardarelli - Napoli)

Centro Antiveleni di Foggia 800 183459

(Azienda ospedaliera universitaria - Foggia)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

PLT 34 WHITE: 160, 160 HD,

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:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Eye irritation, category 2	H319	Causes serious eye irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

2.2. Label elements

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

Hazard pictograms:



Signal words: Warning

Hazard statements:

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH208	Contains: Phthalic anhydride with less than 0,05% of maleic anhydride May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P370+P378	In case of fire: use chemical powder, CO2 or dry send to extinguish.
P261	Avoid breathing dust, gas or vapours.
P312	Call a POISON CENTRE or a doctor if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Contains: 2-ETHOSSI-1-METHYL ETHYL ACETATE
2-METHOXY-1-METHYLETHYL ACETATE
1-METHOXY-2-PROPANOL
BUTANOL

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

PLT 34 WHITE: 160, 160 HD,

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
TITANIUM DIOXIDE		
INDEX -	$47,5 \leq x < 50$	
EC 236-675-5		
CAS 13463-67-7		
2-ETHOSSI-1-METHYL ETHYL ACETATE		
INDEX 603-177-00-8	$10,5 \leq x < 12$	Flam. Liq. 3 H226, STOT SE 3 H336
EC 259-370-9		
CAS 54839-24-6		
REACH Reg. 01-2119475116-39xxxx		
2-METHOXY-1-METHYLETHYL ACETATE		
INDEX 607-195-00-7	$4,5 \leq x < 5$	Flam. Liq. 3 H226, STOT SE 3 H336
EC 203-603-9		
CAS 108-65-6		
REACH Reg. 01-2119475791-29-xxxx		
BUTYLGLYCOL ACETATE		
INDEX 607-038-00-2	$4 \leq x < 4,5$	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332 LD50 Oral: 1880 mg/kg, LD50 Dermal: 1500 mg/kg, STA Inhalation vapours: 11 mg/l
EC 203-933-3		
CAS 112-07-2		
REACH Reg. 01-2119475112-47xxxx		
1-METHOXY-2-PROPANOL		
INDEX 603-064-00-3	$3,5 \leq x < 4$	Flam. Liq. 3 H226, STOT SE 3 H336
EC 203-539-1		
CAS 107-98-2		
REACH Reg. 01-2119457435-35xxxx		
BUTANOL		
INDEX 603-004-00-6	$1,5 \leq x < 2$	Flam. Liq. 3 H226, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336 STA Oral: 500 mg/kg
EC 200-751-6		
CAS 71-36-3		
REACH Reg. 01-2119484630-38		
2-BUTOXYETHANOL		
INDEX 603-014-00-0	$0,36 \leq x < 0,38$	Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315 LD50 Oral: 1200 mg/kg, STA Inhalation vapours: 11 mg/l
EC 203-905-0		
CAS 111-76-2		
REACH Reg. 01-2119475108-36-xxxx		
Phthalic anhydride with less than 0,05% of maleic anhydride		
INDEX 607-009-00-4	$0,1 \leq x < 0,12$	Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317, EUH208

EC 201-607-5 STA Oral: 500 mg/kg
CAS 85-44-9
REACH Reg. 01-2119457017-41

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. 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

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. 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

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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.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

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
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
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste

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<p>PRT Portugal</p> <p>POL Polska</p> <p>ROU România</p> <p>SWE Sverige</p> <p>TUR Türkiye</p> <p>GBR United Kingdom</p> <p>EU OEL EU</p> <p>TLV-ACGIH</p>	<p>lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit 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 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 Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006 Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1) Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733 EH40/2005 Workplace exposure limits (Fourth Edition 2020) 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. ACGIH 2021</p>
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TITANIUM DIOXIDE Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	10				RESP
TLV	DNK	6				Som Ti
VLA	ESP	10				
VLEP	FRA	10				
NDS/NDSch	POL	10				INHAL
TLV	ROU	10		15		
NGV/KGV	SWE	5				Totaldamm
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		2,5				RESP

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,127	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	1000	mg/kg
Normal value for marine water sediment	100	mg/kg
Normal value for water, intermittent release	0,61	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	100	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				700 mg/m3				
Inhalation								10 mg/m3

2-ETHOSSI-1-METHYL ETHYL ACETATE Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	120	20	240	40	SKIN 14
MAK	DEU	120	20	240	40	SKIN Hinweis

Predicted no-effect concentration - PNEC

Normal value in fresh water	2	mg/l
Normal value in marine water	0,8	mg/l
Normal value for fresh water sediment	8,2	mg/kg
Normal value for marine water sediment	0,6	mg/kg
Normal value for water, intermittent release	2	mg/l
Normal value of STP microorganisms	62,5	mg/kg
Normal value for the food chain (secondary poisoning)	117	mg/kg
Normal value for the terrestrial compartment	0,6	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			VND	13,1 mg/kg				
Inhalation	VND	365 mg/m3	VND	181 mg/m3	VND	608 mg/m3	VND	302 mg/m3
Skin			VND	62 mg/kg			VND	103 mg/kg

Polymer based on vinyl compounds

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	2	1			

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 mg/m3

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	275	50	550	100	SKIN
TLV	CZE	270	49,14	550	100,1	SKIN
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
TLV	DNK	275	50			SKIN E
VLA	ESP	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
VLEP	ITA	275	50	550	100	SKIN
TGG	NLD	550				
VLE	PRT	275	50	550	100	SKIN
NDS/NDSCh	POL	260		520		SKIN
TLV	ROU	275	50	550	100	SKIN
NGV/KGV	SWE	275	50	550	100	SKIN
ESD	TUR	275	50	550	100	SKIN

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WEL	GBR	274	50	548	100	SKIN
OEL	EU	275	50	550	100	SKIN

Predicted no-effect concentration - PNEC						
Normal value in fresh water				0,635	mg/l	
Normal value in marine water				0,0635	mg/l	
Normal value for fresh water sediment				3,29	mg/kg	
Normal value for marine water sediment				0,329	mg/l	
Normal value for water, intermittent release				6,35	mg/l	
Normal value of STP microorganisms				100	mg/l	
Normal value for the terrestrial compartment				0,29	mg/kg	

Health - Derived no-effect level - DNEL / DMEL								
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	1,67 mg/kg				
Inhalation			33 mg/m3	33 mg/m3	550 mg/m3		VND	275 mg/m3
Skin			VND	54,8 mg/kg			VND	153,5 mg/kg

BUTYLGLYCOL ACETATE
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	133	20	333	50	SKIN
TLV	CZE	130	19,5	300	45	SKIN
AGW	DEU	65	10	130 (C)	20 (C)	SKIN 11
MAK	DEU	66	10	132	20	SKIN Hinweis
TLV	DNK	134	20			SKIN E
VLA	ESP	133	20	333	50	SKIN
VLEP	FRA	66,5	10	333	50	
VLEP	ITA	133	20	333	50	SKIN
TGG	NLD	135		333		SKIN
VLE	PRT	133	20	333	50	SKIN
NDS/NDSch	POL	100		300		SKIN
TLV	ROU	133	20	333	50	SKIN
NGV/KGV	SWE	70	10	333	50	SKIN
ESD	TUR	133	20	333	50	SKIN
WEL	GBR	133	20	332	50	SKIN
OEL	EU	133	20	333	50	SKIN
TLV-ACGIH		131	20			

Predicted no-effect concentration - PNEC						
Normal value in fresh water				0,304	mg/l	
Normal value in marine water				0,03	mg/l	
Normal value for fresh water sediment				2,03	mg/l	
Normal value for marine water sediment				0,203	mg/l	
Normal value for water, intermittent release				0,56	mg/l	

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Normal value of STP microorganisms	90	mg/l
Normal value for the food chain (secondary poisoning)	60	mg/kg
Normal value for the terrestrial compartment	0,415	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	VND	36 mg/kg/d	VND	4,3 mg/kg/d				
Inhalation	200 mg/m3	499 mg/m3	VND	80 mg/m3	333 mg/m3	773 mg/m3	VND	133 mg/m3
Skin		72 mg/kg bw/d	VND	102 mg/kg/d	102 mg/kg/d	27 mg/kg/d	VND	169 mg/kg/d

1-METHOXY-2-PROPANOL
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	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	
TLV	DNK	185	50			SKIN E
VLA	ESP	375	100	568	150	SKIN
VLEP	FRA	188	50	375	100	SKIN
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
NGV/KGV	SWE	190	50	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	1	mg/l
Normal value for fresh water sediment	41,6	mg/l
Normal value for marine water sediment	4,17	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	2,47	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			VND	3,3 mg/kg				3,3 mg/kg bw/d
Inhalation	553,5 mg/m3	VND	VND	43,9 mg/m3	535,5 mg/m3	VND	535,5 mg/m3	369 mg/m3

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Skin VND 18,1 mg/kg VND 50,6 mg/kg

BUTANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	100		150		
TLV	CZE	300	97,5	600	195	
AGW	DEU	310	100	310	100	
MAK	DEU	310	100	310	100	
TLV	DNK			150 (C)	50 (C)	SKIN
VLA	ESP	61	20	154	50	
VLEP	FRA			150	50	
TGG	NLD			45		
NDS/NDSch	POL	50		150		SKIN
TLV	ROU	100	33	200	66	
NGV/KGV	SWE	45	15	90	30	SKIN
WEL	GBR			154	50	SKIN
TLV-ACGIH		61	20			

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,082	mg/l
Normal value in marine water	0,0082	mg/l
Normal value for fresh water sediment	0,178	mg/kg
Normal value for marine water sediment	0,0178	mg/kg
Normal value for water, intermittent release	2,25	mg/l
Normal value of STP microorganisms	2476	mg/l
Normal value for the terrestrial compartment	0,015	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			VND	3125 mg/kg				
Inhalation			55 mg/m3	VND			310 mg/m3	VND

reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,018	mg/l
Normal value in marine water	0,0018	mg/l
Normal value for fresh water sediment	2	mg/kg/d
Normal value for marine water sediment	0,2	mg/kg/d
Normal value for water, intermittent release	0,018	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the food chain (secondary poisoning)	41,33	mg/kg
Normal value for the terrestrial compartment	10	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

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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				0,93 mg/kg bw/d				
Inhalation				1,62 mg/m3				6,6 mg/m3
Skin				0,83 mg/kg bw/d				1,67 mg/kg bw/d

Soybean oil, epoxidized

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		5 mg/kg/d		0,8 mg/kg/d				
Inhalation		17,5 mg/m3		2,8 mg/m3		70 mg/m3		11,9 mg/m3
Skin		5 mg/kg/d		0,8 mg/kg/d	10 mg/kg/d	10 mg/kg/d		1,7 mg/kg/d

2-BUTOXYETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	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
TLV	DNK	98	20			SKIN Hinweis E
VLA	ESP	98	20	245	50	SKIN
VLEP	FRA	49	10	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
NGV/KGV	SWE	50	10	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 of STP microorganisms	463	mg/l
Normal value for the terrestrial compartment	2,8	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Effects on consumers	Effects on workers
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PLT 34 WHITE: 160, 160 HD,

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		13,4 mg/kg		3,2 mg/kg				
Inhalation	123 mg/m3	123 mg/m3		49 mg/m3	50 ppm	135 ppm		20 ppm
Skin		44,5 mg/kg		38 mg/kg		89 mg/kg		75 mg/kg

Phthalic anhydride with less than 0,05% of maleic anhydride

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	

TLV-ACGIH

1

HYDROM HYDROPHONE SILICATE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	

AGW

DEU

4

INHAL

MAK

DEU

4

INHAL

SODIUM HYDROXIDE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	

TLV

BGR

2

TLV

CZE

1

2

TLV

DNK

2 (C)

VLA

ESP

2

VLEP

FRA

2

NDS/NDSch

POL

0,5

1

NGV/KGV

SWE

1

2

INHAL

WEL

GBR

2

TLV-ACGIH

2 (C)

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

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

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

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.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

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 gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

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

ENVIRONMENTAL EXPOSURE CONTROLS

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

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	white	
Odour	typical of solvent	
Melting point / freezing point	not available	
Initial boiling point	> 115 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	23 ≤ T ≤ 60 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	
Kinematic viscosity	not available	
Solubility	partially soluble in water. Soluble in almost all organic solvents	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	

Density and/or relative density	1,66
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

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

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

2-METHOXY-1-METHYLETHYL ACETATE

Stable in normal conditions of use and storage.

With the air it may slowly develop peroxides that explode with an increase in temperature.

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.

BUTANOL

Attacks various types of plastic materials.

2-BUTOXYETHANOL

Decomposes under the effect of heat.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

2-METHOXY-1-METHYLETHYL ACETATE

May react violently with: oxidising substances, strong acids, alkaline metals.

1-METHOXY-2-PROPANOL

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

BUTANOL

Reacts violently developing heat on contact with: aluminium, strong oxidising agents, strong reducing agents, hydrochloric acid. Forms explosive mixtures with: air.

2-BUTOXYETHANOL

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

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.

BUTANOL

Avoid exposure to: sources of heat, naked flames.

2-BUTOXYETHANOL

Avoid exposure to: sources of heat, naked flames.

10.5. Incompatible materials

2-METHOXY-1-METHYLETHYL ACETATE

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

1-METHOXY-2-PROPANOL

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.

SECTION 11. Toxicological information

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

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

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

Metabolism, toxicokinetics, mechanism of action and other information

2-METHOXY-1-METHYLETHYL ACETATE

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

Information on likely routes of exposure

2-METHOXY-1-METHYLETHYL ACETATE

WORKERS: inhalation; contact with the skin.

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

2-METHOXY-1-METHYLETHYL ACETATE

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

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 - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

TITANIUM DIOXIDE

LD50 (Oral): > 5000 mg/l Ratto/Rat
 LC50 (Inhalation mists/powders): > 6,82 mg/l Ratto/Rat

2-ETHOSSI-1-METHYL ETHYL ACETATE

LD50 (Dermal): 13,42 ml/Kg Coniglio / Rabbit
 LD50 (Oral): > 5000 mg/kg Ratto / Rat
 LC50 (Inhalation vapours): 6,99 mg/l/4h Rat

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Dermal): > 5000 mg/kg Coniglio / Rabbit
 LD50 (Oral): 8500 mg/kg Ratto / Rat
 LC50 (Inhalation vapours): 4345 ppm/6h Ratto / Rat

BUTYLGLYCOL ACETATE

LD50 (Dermal): 1500 mg/kg Coniglio / Rabbit
 LD50 (Oral): 1880 mg/kg Ratto / Rat
 LC50 (Inhalation vapours): 0,4 mg/l/4h Ratto - 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)

1-METHOXY-2-PROPANOL

LD50 (Dermal): 13000 mg/kg Rabbit
 LD50 (Oral): 4000 mg/kg Rat
 LC50 (Inhalation vapours): 54,6 mg/l/4h Rat

BUTANOL

LD50 (Dermal): 3400 mg/kg Rabbit
 LD50 (Oral): 2290 mg/kg Rat
 STA (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP
 (figure used for calculation of the acute toxicity estimate of the mixture)
 LC50 (Inhalation vapours): 17,76 mg/l/4h Rat

2-BUTOXYETHANOL

LD50 (Oral): 1200 mg/kg Guinea pig
 LC50 (Inhalation vapours): 3 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

Phthalic anhydride with less than 0,05% of maleic anhydride

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

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

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

SECTION 12. Ecological information

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

12.1. Toxicity

TITANIUM DIOXIDE

LC50 - for Fish > 10000 mg/l/96h Cypridonon variegatus

2-METHOXY-1-METHYLETHYL ACETATE

LC50 - for Fish 134 mg/l/96h Pesce, Oncorhynchus mykiss OECD 203

EC50 - for Crustacea > 500 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 1000 mg/l/72h Selenastrum capricornutum OECD 201

Chronic NOEC for Fish 47,5 mg/l Oryzias latipes 14 gg OECD 204

Chronic NOEC for Crustacea 100 mg/l Daphnia magna 21 gg OECD 202

2-ETHOSSI-1-METHYL ETHYL ACETATE

LC50 - for Fish 140 mg/l/48h Oncorhynchus mykiss (test 48h)

EC50 - for Crustacea 110 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 100 mg/l/72h Scenedesmus subspicatus

BUTANOL

LC50 - for Fish 1376 mg/l/96h Pimephales promelas

EC50 - for Crustacea 1328 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 225 mg/l/96h 96h - Selenastrum capricornutum

2-BUTOXYETHANOL

LC50 - for Fish 1474 mg/l/96h Oncorhynchus mykiss

EC50 - for Crustacea 1550 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 1840 mg/l/72h Pseudokirchneriella subcapitata

Chronic NOEC for Fish > 100 mg/l 21 d

Chronic NOEC for Crustacea 100 mg/l 21 d

1-METHOXY-2-PROPANOL

LC50 - for Fish > 20800 mg/l/96h Pimephales promelas

EC50 - for Crustacea > 21100 mg/l/48h Daphnia magna, prova statica

EC50 - for Algae / Aquatic Plants > 1000 mg/l/72h Scenedesmus subspicatus, prova statica

BUTYLGLYCOL ACETATE

LC50 - for Fish > 20 mg/l/96h Fish 20-40 mg/kg (48h)

EC50 - for Crustacea 145 mg/l/24h Daphnia Magna (24h)

EC50 - for Algae / Aquatic Plants 1570 mg/l/72h Scenedesmus subspicatus

12.2. Persistence and degradability

2-METHOXY-1-METHYLETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

OECD Gl 301F 83% 10 d

2-ETHOSSI-1-METHYL ETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

Activated sludge - 89%/15 d - 100%/28 d

BUTANOL

Solubility in water 78 mg/l

Rapidly degradable

2-BUTOXYETHANOL

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

1-METHOXY-2-PROPANOL

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

BUTYLGLYCOL ACETATE

Solubility in water 15000 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: n-octanol/water 1,2

BCF 100

2-ETHOSSI-1-METHYL ETHYL ACETATE

Partition coefficient: n-octanol/water 0,76

BCF 3,162

BUTANOL

Partition coefficient: n-octanol/water 1

BCF 3,16

2-BUTOXYETHANOL

Partition coefficient: n-octanol/water 0,81

1-METHOXY-2-PROPANOL

Partition coefficient: n-octanol/water < 1

BUTYLGLYCOL ACETATE

Partition coefficient: n-octanol/water 1,51

12.4. Mobility in soil

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: soil/water 1,7

2-ETHOSSI-1-METHYL ETHYL ACETATE

Partition coefficient: soil/water 1

PLT 34 WHITE: 160, 160 HD,

BUTANOL

Partition coefficient: soil/water 0,388

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.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 1210

14.2. UN proper shipping name

ADR / RID: PRINTING INK or PRINTING INK RELATED MATERIAL

IMDG: PRINTING INK or PRINTING INK RELATED MATERIAL

IATA: PRINTING INK or PRINTING INK RELATED MATERIAL

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO
 IMDG: NO
 IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special provision: 163, 367		
IMDG:	EMS: F-E, S-D	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
	Special provision:	A3, A72, A192	

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: P5c

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	BUTANOL REACH Reg.: 01-2119484630-38
Point	75	Phthalic anhydride with less than 0,05% of maleic anhydride REACH Reg.: 01-2119457017-41
Point	75	2-BUTOXYETHANOL REACH Reg.:

01-2119475108-36-xxxx

Point 75 2-methoxypropanol

Point 75 TITANIUM DIOXIDE

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:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
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21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- 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.

For information on any exposure scenarios of the substances present in the mixture, contact Sericom Italia srl.