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Safety Data Sheet

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

1.1. Product identifier

Product name	**NAUTILUS EPOXY PRIMER BLU Component A**
Chemical name and synonym	**PRODOTTO VERNICIANTE A BASE DI RESINE EPOSSIDICHE p.m.> 700 <1100**
UFI :	**XST0-S0JA-U00N-32E4**

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

Intended use **PITTURE VERNICI MARINE.**

Identified Uses	Industrial	Professional	Consumer
Prodotto verniciante per nautica outdoor	☒	☒	☒
Prodotto verniciante per usi industriali	☒	-	-
Prodotto verniciante per nautica indoor	☒	☒	☒
Prodotto verniciante per uso professionale	-	☒	-
Prodotto verniciante per macchine agricole e movimento terra	☒	☒	☒

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier:
Cecchi Gustavo & C. srl - Via M. Coppino 253,
55049 Viareggio (LU) ITALY www.cecchi.it - info@cecchi.it

1.4 Emergency telephone number:
+39 0584/383694 - info@cecchi.it
From monday to friday office hours 8:30 - 12:30, 14:00 - 18:30

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:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

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2.2. Label elements

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

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Precautionary statements:

P501	Dispose of contents/container in accordance with local/regional/national/international regulation
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust / fume / gas / mist / vapours / spray.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
Contains:	XYLENE (MIXTURE OF ISOMERS) ISOBUTYL ALCOHOL REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN) POLYMER EPOXY RESIN (BISPHENOL A EPICHLORHYDRINE) p.m. > 700

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 ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
BARIUM SULFATE		
CAS 7727-43-7	22 ≤ x < 25	
EC 231-784-4		
INDEX -		
REACH Reg. 01-2119491274-35-0024		
POLYMER EPOXY RESIN (BISPHENOL A EPICHLORHYDRINE) p.m. > 700		
CAS 25036-25-3	16 ≤ x < 19	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317
EC		
INDEX -		
XYLENE (MIXTURE OF ISOMERS)		
CAS 1330-20-7	16 ≤ x < 19	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		STA Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l
INDEX 601-022-00-9		
REACH Reg. 01-2119488216-32-XXXX		
ISOBUTYL ALCOHOL		
CAS 78-83-1	6 ≤ x < 7	Flam. Liq. 3 H226, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336
EC 201-148-0		
INDEX 603-108-00-1		
REACH Reg. 01-2119484609-23		
TALC		

CAS 14807-96-6	5 ≤ x < 6	
EC 238-877-9		
INDEX -		
1-METOSSI-2-PROPANOLO		
CAS 107-98-2	4 ≤ x < 5	Flam. Liq. 3 H226, STOT SE 3 H336
EC 203-539-1		
INDEX 603-064-00-3		
REACH Reg. 01-2119457435-35		
METILETILCHETONE		
CAS 78-93-3	4 ≤ x < 5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 201-159-0		
INDEX 606-002-00-3		
REACH Reg. 01-2119457290-43		
REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN)		
CAS 25068-38-6	4 ≤ x < 5	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 500-033-5		Skin Irrit. 2 H315: ≥ 5%, Eye Irrit. 2 H319: ≥ 5%
INDEX 603-074-00-8		
REACH Reg. 01-2119456619-26-XXXX		
FOSFATO IDRATO DI ZINCO ALLUMINIO		
CAS 7779-90-0	2,5 ≤ x < 3,5	Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 231-944-3		
INDEX 030-011-00-6		
REACH Reg. 01-2119485044-40-XXXX		
TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]		
CAS 13463-67-7	0,7 ≤ x < 1	Carc. 2 H351, Classification note according to Annex VI to the CLP Regulation: 10, V, W
EC 236-675-5		
INDEX 022-006-00-2		
REACH Reg. 01-2119489379-17-xxxx		
ISOBUTYL METHYL KETONE		
CAS 108-10-1	0,7 ≤ x < 1	Flam. Liq. 2 H225, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE 3 H335, EUH066
EC 203-550-1		LC50 Inhalation vapours: 11 mg/l/4h
INDEX 606-004-00-4		
REACH Reg. 01-2119473980-30		
N-BUTYL ACETATE		
CAS 123-86-4	0,4 ≤ x < 0,7	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1		
INDEX 607-025-00-1		
REACH Reg. 01-2119485493-29-XXXX		
4-HYDROXY-4-METHYLPENTAN-2-ONE		
CAS 123-42-2	0,4 ≤ x < 0,7	Flam. Liq. 3 H226, Repr. 2 H361, Eye Irrit. 2 H319, STOT SE 3 H335

EC 204-626-7		
INDEX 603-016-00-1		
REACH Reg. 01-2119473975-21-XXXX 2119473975-21		
Oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1)		
CAS 34140-91-5	0,1 ≤ x < 0,4	STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411
EC 251-846-4		
INDEX -		
1-methyl-2-methoxy acetate		
CAS 108-65-6	0 ≤ x < 0,05	Flam. Liq. 3 H226
EC 203-603-9		
INDEX 607-195-00-7		
REACH Reg. 01-2119475791-29-XXXX		
QUARTZ		
CAS 14808-60-7	0 ≤ x < 0,05	STOT RE 1 H372
EC 238-878-4		
INDEX -		
FORMALDEHYDE		
CAS 50-00-0	0 ≤ x < 0,05	Carc. 1B H350, Muta. 2 H341, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: B, D
EC 200-001-8		Skin Corr. 1B H314: ≥ 25%, Skin Irrit. 2 H315: ≥ 5%, Skin Sens. 1 H317: ≥ 0,2%, Eye Dam. 1 H318: ≥ 25%, Eye Irrit. 2 H319: ≥ 5%, STOT SE 3 H335: ≥ 5%
INDEX 605-001-00-5		LD50 Oral: 100 mg/kg, LD50 Dermal: 270 mg/kg, STA Inhalation vapours: 3 mg/l
REACH Reg. 01-2119488953-20-XXXX		

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

XYLENE (MIXTURE OF ISOMERS)
XYLENE (MIXTURE OF ISOMERS)
*sostanza UVCB, per la quale sono validi anche i seguenti identificatori di prodotto:
Reazione di massa dell'etilbenzene e dello xilene; CE N. : 905-588-0; Nr. REACH: 01-2119486136-34/ Nr. REACH: 01-2119488216-32;
Massa di reazione di etilbenzene e M-xilene e P-xilene; CE N: 905-562-9; Nr. REACH: 01-2119488216-32/ Nr REACH: 01-2119555267-33.

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
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

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. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. 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.

Storage class TRGS 510 (Germany):
3

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
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 şi pentru modificarea şi completarea hotărârii guvernului nr. 1.093/2006
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	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

BARIUM SULFATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
MAK	DEU	0,3				INHAL	
MAK	DEU	0,3		1,6		RESP	Hinweis

VLA	ESP	10				
NDS/NDSCh	POL	0,5				Na Ba
WEL	GBR	10			INHAL	
WEL	GBR	4			RESP	
TLV-ACGIH		5			INHAL	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	115	µg/L
Normal value in marine water	NPI	
Normal value for fresh water sediment	600,4	mg/kg/d
Normal value for marine water sediment	NPI	
Normal value for water, intermittent release	NPI	
Normal value of STP microorganisms	62,2	mg/l
Normal value for the terrestrial compartment	207,7	mg/kg/d
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		13000 mg/kg bw/d				
Inhalation	NPI	NPI	NPI	10 mg/m3	NPI	NPI	10 mg/m3	10 mg/m3
Skin	NPI	NPI	NPI	NPI	NPI	NPI	NPI	NPI

XYLENE (MIXTURE OF ISOMERS)
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
TGG	NLD	210		442		SKIN
VLE	PRT	221	50	442	100	SKIN
NDS/NDSCh	POL	100		200		SKIN
TLV	ROU	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	mg/kg
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1.6 mg/kg bw/d				180 mg/kg
Inhalation	174 mg/m3	174 mg/m3		14,8 mg/m3	289 mg/m3	289 mg/m3		77 mg/m3
Skin		108 mg/kg bw/d						180 mg/kg bw/d

ISOBUTYL ALCOHOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	310	100	310 (C)	100 (C)	
MAK	DEU	310	100	310	100	
VLA	ESP	154	50			
VLEP	FRA	150	50			
TGG	NLD	150				
NDS/NDSCh	POL	100		200		SKIN
TLV	ROU	100	33	200	66	
WEL	GBR	154	50	231	75	
TLV-ACGIH		152	50			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,4	mg/l
Normal value in marine water	0,04	mg/l
Normal value for fresh water sediment	1,52	mg/kg d.w
Normal value for marine water sediment	0,152	mg/kg d.w.
Normal value for water, intermittent release	11	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,0699	mg/kg d.w
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI			25 mg/kg d.w.	VND
Inhalation			310 mg/m3	VND			55 mg/m3	VND
Skin		NPI		NPI		NPI		NPI

TALC

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2				RESP
TGG	NLD	0,25				RESP
NDS/NDSCh	POL	4				INHAL

NDS/NDSCh	POL	1				RESP
TLV	ROU	2				
WEL	GBR	1				RESP
TLV-ACGIH		2				

Predicted no-effect concentration - PNEC		
Normal value in fresh water	597,97	mg/l
Normal value in marine water	141,26	mg/l
Normal value for fresh water sediment	31,33	mg/kg/d
Normal value for marine water sediment	3,13	mg/kg/d
Normal value for the atmosphere	10	mg/m3

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		160 mg/kg bw/d		160 mg/kg bw/d				
Inhalation	1,8 mg/m3	1,08 mg/m3	1,8 mg/m3	1,08 mg/m3	3,6 mg/m3	2,16 mg/m3	3,6 mg/m3	2,16 mg/m3
Skin	NPI	NPI	2,27 mg/kg bw/d	26,1 mg/kg bw/d	NPI	NPI	4,54 mg/kg bw/d	43,2 mg/kg bw/d

1-METOSSI-2-PROPANOLO

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
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
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
WEL	GBR	375	100	560	150	SKIN
OEL	EU	375	100	568	150	SKIN
TLV-ACGIH		184	50	368	100	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	10	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	52,3	mg/kg
Normal value for marine water sediment	5,2	mg/kg
Normal value for water, intermittent release	100	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	4,59	mg/kg pc/giorno

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic

				systemic		systemic		systemic
Oral	NPI		33 mg/kg bw/d					
Inhalation	NPI	NPI	NPI	43,9 mg/m3	553,5 mg/m3 1h	553.5 mg/m3	NPI	369 mg/m3
Skin	NPI	NPI	NPI	78 mg/kg bw/d	NPI	NPI	NPI	183 mg/kg bw/d

METILETILCHETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	600	200	600	200	SKIN
MAK	DEU	600	200	600	200	SKIN
VLA	ESP	600	200	900	300	
VLEP	FRA	600	200	900	300	SKIN
VLEP	ITA	600	200	900	300	
TGG	NLD	590		500		SKIN
VLE	PRT	600	200	900	300	
NDS/NDSCh	POL	450		900		SKIN
TLV	ROU	600	200	900	300	
WEL	GBR	600	200	899	300	SKIN
OEL	EU	600	200	900	300	
TLV-ACGIH		590	200	885	300	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	55,8	mg/l
Normal value in marine water	55,8	mg/l
Normal value for fresh water sediment	284,74	mg/kg
Normal value for marine water sediment	287,7	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				31 mg/kg				
Inhalation				406 mg/m3				600 mg/m3
Skin				412 mg/kg				1161 mg/kg

REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN)

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,006	mg/l
Normal value in marine water	0,0006	mg/l
Normal value for fresh water sediment	0,0627	mg/kg
Normal value for marine water sediment	0,00627	mg/kg
Normal value of STP microorganisms	10	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			0,012 mg/l					0,012 mg/l

Skin					8,33 mg/kg		8,33 mg/kg

147-14-8: rame [29H,31H-ftalocianinato(2-)-N29,N30,N31,N32]

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
VLEP	ITA	0,2					fumi misurare come rame
VLEP	ITA	1				RESP	polvere o nebbia rame (Cu)

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	10				
VLEP	FRA	10				
NDS/NDSCh	POL	10				INHAL
TLV	ROU	10		15		
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		10				

Predicted no-effect concentration - PNEC	
Normal value in fresh water	NPI
Normal value in marine water	NPI
Normal value for fresh water sediment	NPI
Normal value for marine water sediment	NPI
Normal value for water, intermittent release	NPI
Normal value of STP microorganisms	NPI
Normal value for the food chain (secondary poisoning)	NPI
Normal value for the terrestrial compartment	NPI
Normal value for the atmosphere	NPI

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI				
Inhalation	NPI	NPI	NPI	NPI	NPI	NPI	NPI	NPI
Skin	NPI	NPI	NPI	NPI	NPI	NPI	NPI	NPI

ISOBUTYL METHYL KETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	83	20	166	40	SKIN
MAK	DEU	83	20	166	40	SKIN
VLA	ESP	83	20	208	50	

VLEP	FRA	83	20	208	50		
VLEP	ITA	83	20	208	50		
TGG	NLD	104		208			
VLE	PRT	83	20	208	50		
NDS/NDSCh	POL	83		200			
TLV	ROU	83	20	208	50		
WEL	GBR	208	50	416	100	SKIN	
OEL	EU	83	20	208	50		
TLV-ACGIH		82	20	307	75		

Predicted no-effect concentration - PNEC		
Normal value in fresh water	600	µg/L
Normal value in marine water	60	µg/L
Normal value for fresh water sediment	8,27	mg/kg/d
Normal value for marine water sediment	830	µg/kg/dw
Normal value for water, intermittent release	1,5	mg/l
Normal value of STP microorganisms	27,5	mg/l
Normal value for the food chain (secondary poisoning)	NPI	
Normal value for the terrestrial compartment	1,3	mg/kg/d
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		4,2 mg/kg/d				
Inhalation	155,2 mg/m3	155,2 mg/m3	14,7 mg/m3	14.7 mg/m3	208 mg/m3	208 mg/m3	83 mg/m3	83 mg/m3
Skin	NPI	NPI		4,2 mg/kg bw/d	NPI	NPI		11,8 mg/kg bw/d

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	300	62	600 (C)	124 (C)	
VLA	ESP	241	50	724	150	
VLEP	FRA	710	150	940	200	
VLEP	ITA	241	50	723	150	
TGG	NLD	150				
VLE	PRT	241	50	723	150	
NDS/NDSCh	POL	240		720		
TLV	ROU	241	50	723	150	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,18	mg/l

Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	0,981	mg/kg
Normal value for marine water sediment	0,0981	mg/kg
Normal value for water, intermittent release	0,36	mg/l
Normal value of STP microorganisms	35,6	mg/l
Normal value for the terrestrial compartment	0,0903	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		2 mg/kg bw/d		2 mg/kg bw/d				
Inhalation	300 mg/m3	300 mg/m3	37.5 mg/m3	12 mg/m3	300 mg/m3	48 mg/m3	600 mg/m3	600 mg/m3
Skin	NPI	3.4 mg/kg bw/d	NPI	6 mg/kg bw/d	NPI	11 mg/kg bw/d	NPI	7 mg/kg bw/d

4-HYDROXY-4-METHYLPENTAN-2-ONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	96	20	192	40	SKIN
MAK	DEU	96	20	192	40	SKIN
VLA	ESP	241	50			
VLEP	FRA	240	50			
TGG	NLD	120				SKIN
NDS/NDSCh	POL	240				
TLV	ROU	150	32	250	53	
WEL	GBR	241	50	362	75	
TLV-ACGIH		238	50			

Predicted no-effect concentration - PNEC

Normal value in fresh water	2	mg/l
Normal value in marine water	0,2	mg/l
Normal value for fresh water sediment	9,06	mg/kg
Normal value for marine water sediment	0,91	mg/kg
Normal value for water, intermittent release	1	mg/l
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		1,67 mg/kg				
Inhalation	NPI	NPI	NPI	5.8 mg/m3	240 mg/m3	NPI	NPI	32,6 mg/m3
Skin	NPI	NPI	NPI	167 mg/kg	NPI	NPI	NPI	467 mg/kg

Oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1)

Predicted no-effect concentration - PNEC

Normal value in fresh water	646	µg/L
Normal value in marine water	646	ng/L

Normal value for fresh water sediment	204	mg/kg/d
Normal value for marine water sediment	20,4	mg/kg/d
Normal value of STP microorganisms	993	mg/l
Normal value for the terrestrial compartment	993	mg/kg/d

1-methyl-2-methoxy acetate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
VLA	ESP	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
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
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/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the food chain (secondary poisoning)	NPI	
Normal value for the terrestrial compartment	0,29	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	500 mg/kg bw/d		36 mg/kg bw/d	1,67 mg/kg				
Inhalation	NPI	NPI	33 mg/m3	33 mg/m3	550 mg/m3	NPI	NPI	275 mg/m3
Skin	NPI	NPI	NPI	320 mg/kg bw/d	NPI	NPI	NPI	796 mg/kg bw/d

QUARTZ

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP		0,05			RESP
VLEP	FRA	0,1				RESP
VLEP	ITA	0,1				RESP
TGG	NLD	0,075				RESP

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

FORMALDEHYDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	0,37	0,3	0,74	0,6	
VLA	ESP	0,37	0,3	0,74	0,6	
VLEP	FRA	0,37	0,3	0,74	0,6	
VLEP	ITA	0,37	0,3	0,74	0,6	
TGG	NLD	0,15		0,5		
VLE	PRT	0,37	0,3	0,74	0,6	
NDS/NDSCh	POL	0,37		0,74		SKIN
TLV	ROU	0,37	0,3	0,74	0,6	
WEL	GBR	2,5	2	2,5	2	
OEL	EU	0,37	0,3	0,74	0,6	
TLV-ACGIH			0,1		0,3	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,47	mg/l
Normal value in marine water	0,47	mg/l
Normal value for fresh water sediment	2,44	mg/kg
Normal value for marine water sediment	2,3	mg/kg/d
Normal value of STP microorganisms	0,19	mg/l
Normal value for the terrestrial compartment	0,21	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		4.1 mg/kg bw/d				
Inhalation	NPI	NPI	0.1 mg/m3	3.2 mg/m3	NPI	1 mg/m3	0.5 mg/m3	9 mg/m3
Skin	NPI	NPI	NPI	102 mg/kg bw/d	NPI	NPI	NPI	240 mg/kg bw/d

Legend:

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

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

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

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, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (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.

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	blue	
Odour	characteristic of solvent	
Melting point / freezing point	Not available	
Initial boiling point	> 35 °C	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	21 ≤ T < 23 °C	

Auto-ignition temperature	Not available	
pH	Not available	Reason for missing data:substance/mixture is non-soluble (in water)
Kinematic viscosity	>20,5 mm2/sec (40°C)	Method:v cinematica = v g/mm·s a 40°C / g/mm3
Dynamic viscosity	3000 ± 500 Cps	Method:Broockfield 6/50 rpm Temperature: 20 °C
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	22,85 mmHg	Method:Valore calcolato
Density and/or relative density	1,35	Method:OECD 109 Temperature: 20 °C
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)	65,24 %			Method:Valore calcolato
VOC (Directive 2010/75/EU)	34,76 %	- 469,26	g/litre	
VOC (volatile carbon)	26,52 %	- 358,02	g/litre	

SECTION 10. Stability and reactivity

10.1. Reactivity

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

1-METOSSI-2-PROPANOLO

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

Assorbe e si scioglie in acqua ed in solventi organici. Con l'aria può dare lentamente perossidi esplosivi.

METILETILCHETONE

Reacts with: light metals,strong oxidants.Attacks various types of plastic materials.Decomposes under the effect of heat.

ISOBUTYL METHYL KETONE

Reacts violently with: light metals.Attacks various types of plastic materials.

N-BUTYL ACETATE

Decomposes on contact with: water.

4-HYDROXY-4-METHYLPENTAN-2-ONE

Decomposes at temperatures above 90°C/194°F.

1-methyl-2-methoxy acetate

Stable in normal conditions of use and storage.

Con l'aria può dare lentamente perossidi che esplodono per aumento di temperatura.

FORMALDEHYDE

Decomposes under the effect of heat.

Acqueous solutions are stabilised with methanol but tend to polymerise over time.

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.

XYLENE (MIXTURE OF ISOMERS)

Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May form explosive mixtures with: air.

1-METOSSI-2-PROPANOLO

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

METILETILCHETONE

May form peroxides with: air,light,strong oxidising agents.Risk of explosion on contact with: hydrogen peroxide,nitric acid,sulphuric acid.May react dangerously with: oxidising agents,trichloromethane,alkalis.Forms explosive mixtures with: air.

ISOBUTYL METHYL KETONE

May react violently with: oxidising agents.Forms peroxides with: air.Forms explosive mixtures with: hot air.

N-BUTYL ACETATE

Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides,potassium tert-butoxide.Forms explosive mixtures with: air.

4-HYDROXY-4-METHYLPENTAN-2-ONE

Risk of explosion on contact with: air,sources of heat.May react dangerously with: alkaline metals,amines,oxidising agents,acids.

1-methyl-2-methoxy acetate

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

FORMALDEHYDE

Risk of explosion on contact with: nitromethane,nitrogen dioxide,hydrogen peroxide,phenoles,performic acid,nitric acid.May polymerise on contact with: strong oxidising agents,alkalis.May react dangerously with: hydrochloric acid,magnesium carbonate,sodium hydroxide,perchloric acid,aniline.Forms explosive mixtures with: air.

10.4. Conditions to avoid

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

1-METOSSI-2-PROPANOLO

Avoid exposure to: air.

METILETILCHETONE

Avoid exposure to: sources of heat.

ISOBUTYL METHYL KETONE

Avoid exposure to: sources of heat.

N-BUTYL ACETATE

Avoid exposure to: moisture,sources of heat,naked flames.

4-HYDROXY-4-METHYLPENTAN-2-ONE

Avoid exposure to: light,sources of heat,naked flames.

FORMALDEHYDE

Avoid exposure to: light,sources of heat,naked flames.

10.5. Incompatible materials

1-METOSSI-2-PROPANOLO

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

METILETILCHETONE

Incompatible with: strong oxidants,inorganic acids,ammonia,copper,chloroform.

ISOBUTYL METHYL KETONE

Incompatible with: oxidising substances,reducing substances.

N-BUTYL ACETATE

Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

1-methyl-2-methoxy acetate

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

FORMALDEHYDE

Incompatible with: acids,alkalis,ammonia,tannin,strong oxidants,phenoles,copper salts,silver,iron.

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.

FORMALDEHYDE

When heated to decomposition releases: methanol,carbon monoxide.

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

1-methyl-2-methoxy acetate
La principale via di entrata è quella cutanea, mentre quella respiratoria è meno importante, data la bassa tensione di vapore del prodotto.

Information on likely routes of exposure

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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

1-METOSSI-2-PROPANOLO
LAVORATORI: inalazione; contatto con la cute.
POPOLAZIONE: ingestione di cibo o di acqua contaminati; inalazione aria ambiente; contatto con la cute di prodotti contenenti la sostanza.

N-BUTYL ACETATE
WORKERS: inhalation; contact with the skin.

4-HYDROXY-4-METHYLPENTAN-2-ONE
WORKERS: inhalation; contact with the skin.

1-methyl-2-methoxy acetate
LAVORATORI: inalazione; contatto con la cute.

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

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

1-METOSSI-2-PROPANOLO
La principale via di entrata è quella cutanea, mentre quella respiratoria è meno importante, data la bassa tensione di vapore del prodotto. Al di sopra di 100 ppm si ha irritazione delle mucose oculari, nasali e orofaringee. A 1000 ppm si notano turbe nell'equilibrio e irritazione severa agli occhi. Gli esami clinici e biologici praticati sui volontari esposti non hanno rivelato anomalie. L'acetato produce maggiore irritazione cutanea ed oculare per contatto diretto. Non vengono riportati effetti cronici sull'uomo.

N-BUTYL ACETATE
In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

4-HYDROXY-4-METHYLPENTAN-2-ONE
Acute toxicity causes irritation of the eyes, nose and throat in humans at 100 ppm (476 mg/kg) and pulmonary disorders at 400 ppm. No chronic effects on humans have been reported. The substance may have a depressive effect on the respiratory centres and cause death from respiratory failure.

1-methyl-2-methoxy acetate
Al di sopra di 100 ppm si ha irritazione delle mucose oculari, nasali e orofaringee. A 1000 ppm si notano turbe nell'equilibrio e irritazione severa agli occhi. Gli esami clinici e biologici praticati sui volontari esposti non hanno rivelato anomalie. L'acetato produce maggiore irritazione cutanea ed oculare per contatto diretto. Non vengono riportati effetti cronici sull'uomo (INCR, 2010).

Interactive effects

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

N-BUTYL ACETATE
A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with

uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

ACUTE TOXICITY

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

BARIUM SULFATE

LD50 (Oral):	> 3000 mg/kg Mouse

POLYMER EPOXY RESIN (BISPHENOL A EPICHLORHYDRINE) p.m. > 700

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

XYLENE (MIXTURE OF ISOMERS)

LD50 (Dermal):	4350 mg/kg Rabbit
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)
LD50 (Oral):	3523 mg/kg Rat
LC50 (Inhalation vapours):	6700 ppm/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)

ISOBUTYL ALCOHOL

LD50 (Dermal):	2460 mg/kg Rabbit
LD50 (Oral):	2460 mg/kg Rat
LC50 (Inhalation vapours):	18,18 mg/l/4h Rat

1-METOSSI-2-PROPANOLO

LD50 (Dermal):	13000 mg/kg Rabbit
LD50 (Oral):	4016 mg/kg Rat
LC50 (Inhalation vapours):	54,6 mg/l/4h Rat

METILETILCHETONE

LD50 (Dermal):	6480 mg/kg Rabbit
LD50 (Oral):	2737 mg/kg Rat
LC50 (Inhalation vapours):	23,5 mg/l/8h Rat

REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN)

LD50 (Dermal):	> 2000 mg/kg CONIGLIO
LD50 (Oral):	> 5000 mg/kg RATTO

147-14-8: rame [29H,31H-ftalocianinato(2-)-N29,N30,N31,N32]

LD50 (Dermal):	> 5000 mg/kg ratto maschio
LD50 (Oral):	> 6400 mg/kg ratto

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

LD50 (Oral):	> 10000 mg/kg Rat
LC50 (Inhalation vapours):	> 343 mg/l/4h 3.43 - 6.82 RATTO

ISOBUTYL METHYL KETONE

LD50 (Dermal):	> 16000 mg/kg Rabbit
LD50 (Oral):	2080 mg/kg Rat
LC50 (Inhalation vapours):	11 mg/l/4h

N-BUTYL ACETATE

LD50 (Dermal):	> 5000 mg/kg Rabbit
LD50 (Oral):	> 6400 mg/kg Rat
LC50 (Inhalation vapours):	21,1 mg/l/4h Rat

4-HYDROXY-4-METHYLPENTAN-2-ONE

LD50 (Dermal):	> 1875 mg/kg RATTO
LD50 (Oral):	3002 mg/kg Rat

1-methyl-2-methoxy acetate

LD50 (Dermal):	> 3160 mg/kg Rat
LD50 (Oral):	8500 mg/kg Rat
LC50 (Inhalation vapours):	6193 mg/m3/4h Ratto

QUARTZ

LD50 (Oral):	> 500 mg/kg

FORMALDEHYDE

LD50 (Dermal):	270 mg/kg Rabbit
LD50 (Oral):	100 mg/kg Rat
LC50 (Inhalation vapours):	0,588 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

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

XYLENE (MIXTURE OF ISOMERS)
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

TITANIUM DIOXIDE [in powder form contain
ing 1 % or more of particles with aerodynamic dia
meter ≤ 10 µm]
The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1% or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

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

May cause respiratory irritation

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

May cause damage to organs

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: >20,5 mm2/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 is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.
12.1. Toxicity

TITANIUM DIOXIDE [in powder form contain ing 1 % or more of particles with aerodynamic dia meter ≤ 10 µm]	
EC50 - for Crustacea	> 2,41 mg/l/48h 2.41 - 103.9
EC50 - for Algae / Aquatic Plants	> 3,58 mg/l/72h 3.58 - 100
TALC	
LC50 - for Fish	> 89,581 g/l/96h 89.581 - 110 g/L
BARIUM SULFATE	
LC50 - for Fish	> 3,5 mg/l/96h 3.5 - 174
EC50 - for Algae / Aquatic Plants	> 1,15 mg/l/72h 1.15 - 100 mg/L
1-methyl-2-methoxy acetate	
LC50 - for Fish	> 100 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 408 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h
Chronic NOEC for Fish	47,5 mg/l Oncothynchus mykiss
Chronic NOEC for Crustacea	> 99 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	> 999 mg/l Selenastrum capricornutum
ISOBUTYL ALCOHOL	
LC50 - for Fish	> 1,43 mg/l/96h Pimephales promelas
EC50 - for Crustacea	> 1,1 mg/l/48h Daphnia pulex
EC50 - for Algae / Aquatic Plants	> 3,48 mg/l/72h DAFNIE
4-HYDROXY-4-METHYLPENTAN-2-ONE	
LC50 - for Fish	> 100 mg/l/96h ORYZIAS LATIPES
EC50 - for Crustacea	> 1000 mg/l/48h DAFNIA
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h PSEUDOKIRCHNERIELLA SUBCAPITATA
REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN)	
LC50 - for Fish	> 2 mg/l/96h PESCI

EC50 - for Crustacea	> 1,8 mg/l/48h DAFNIE
FORMALDEHYDE	
LC50 - for Fish	> 6,7 mg/l/96h
EC50 - for Crustacea	> 5,8 mg/l/48h DAFNIE
EC50 - for Algae / Aquatic Plants	> 5,67 mg/l/72h
METILETILCHETONE	
LC50 - for Fish	> 2,993 mg/l/96h Pimephales promelas
EC50 - for Crustacea	> 508 mg/l/48h Daphnia Magna
ISOBUTYL METHYL KETONE	
LC50 - for Fish	> 179 mg/l/96h
EC50 - for Crustacea	> 200 mg/l/48h
N-BUTYL ACETATE	
LC50 - for Fish	> 18 mg/l/96h
EC50 - for Crustacea	> 32 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 246 mg/l/72h
Oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1)	
LC50 - for Fish	> 1,34 mg/l/96h
EC50 - for Algae / Aquatic Plants	> 410 µg/L
EC10 for Crustacea	> 1,35 mg/l/21d
EC10 for Algae / Aquatic Plants	> 323 µg/L 72 h
147-14-8: rame [29H,31H-ftalocianinato(2-)-N29,N30,N31,N32]	
LC50 - for Fish	> 100 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	> 500 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Desmodesmus subspicatus
FOSFATO IDRATO DI ZINCO ALLUMINIO	
LC50 - for Fish	> 0,5 mg/l/96h
Chronic NOEC for Crustacea	> 0,72 mg/l newly hatched larvae to larvae (from unexposed eggs)
Chronic NOEC for Algae / Aquatic Plants	> 4,8 mg/l 12 d growth rate

12.2. Persistence and degradability

XYLENE (MIXTURE OF ISOMERS)	
Solubility in water	100 - 1000 mg/l
Rapidly degradable	
TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic dia	

meter ≤ 10 µm]

Solubility in water	< 0,001 mg/l
Degradability: information not available	

TALC

Solubility in water	< 0,1 mg/l

BARIUM SULFATE

Solubility in water	0,1 - 100 mg/l
Degradability: information not available	

1-methyl-2-methoxy acetate

Solubility in water	> 10000 mg/l
Rapidly degradable	

ISOBUTYL ALCOHOL

Solubility in water	> 70 g/l
Rapidly degradable	

4-HYDROXY-4-METHYLPENTAN-2-ONE

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

1-METOSSI-2-PROPANOLO

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN)

Solubility in water	0,1 - 100 mg/l
NOT rapidly degradable	

FORMALDEHYDE

Solubility in water	55000 mg/l
Rapidly degradable	

METILETILCHETONE

Solubility in water	> 10000 mg/l
Rapidly degradable	

ISOBUTYL METHYL KETONE

Solubility in water	> 14,1 g/l
Degradability: information not available	

Rapidly degradable

N-BUTYL ACETATE	
Solubility in water	5.3 - 14 g/L @ 20 °C mg/l
Rapidly degradable	

147-14-8: rame [29H,31H-ftalocianinato(2-)-N29,N30,N31,N32]
NOT rapidly degradable

12.3. Bioaccumulative potential

XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: n-octanol/water	3,12
BCF	25,9
1-methyl-2-methoxy acetate	
Partition coefficient: n-octanol/water	1,2
ISOBUTYL ALCOHOL	
Partition coefficient: n-octanol/water	1
4-HYDROXY-4-METHYLPENTAN-2-ONE	
Partition coefficient: n-octanol/water	-0,09
1-METOSSI-2-PROPANOLO	
Partition coefficient: n-octanol/water	< 1
REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN)	
Partition coefficient: n-octanol/water	> 2,918
BCF	31
FORMALDEHYDE	
Partition coefficient: n-octanol/water	0,35
BCF	< 1
METILETILCHETONE	
Partition coefficient: n-octanol/water	0,3
ISOBUTYL METHYL KETONE	
Partition coefficient: n-octanol/water	1,9
N-BUTYL ACETATE	
Partition coefficient: n-octanol/water	2,3
BCF	15,3

12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: soil/water	2,73
ISOBUTYL ALCOHOL	
Partition coefficient: soil/water	0,31
REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN)	
Partition coefficient: soil/water	2,65
FORMALDEHYDE	
Partition coefficient: soil/water	1,202
ISOBUTYL METHYL KETONE	
Partition coefficient: soil/water	2,008
N-BUTYL ACETATE	
Partition coefficient: soil/water	< 3

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 ≥ 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:	1263

14.2. UN proper shipping name

ADR / RID:	PAINT or PAINT RELATED MATERIAL
IMDG:	PAINT or PAINT RELATED MATERIAL (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN))
IATA:	PAINT or PAINT 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:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special provision: 163, 367, 650		
IMDG:	EMS: F-E, S-E	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-E2

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

Product

Point	3 - 40

Contained substance

Point	75	
Point	72	FORMALDEHYDE REACH Reg.: 01-2119488953-20-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 ≥ 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.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 2: Hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

XYLENE (MIXTURE OF ISOMERS)

ISOBUTYL ALCOHOL

1-METOSSI-2-PROPANOLO

METILETILCHETONE

ISOBUTYL METHYL KETONE

N-BUTYL ACETATE

4-HYDROXY-4-METHYLPENTAN-2-ONE

1-methyl-2-methoxy acetate

SECTION 16. Other information

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

Flam. Liq. 2	Flammable liquid, category 2
Carc. 1B	Carcinogenicity, category 1B
Muta. 2	Germ cell mutagenicity, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H350	May cause cancer.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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

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- IFA GESTIS website
- ECHA website
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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.