Safety Data Sheet

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

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

1.1. Product identifier

Code: **3006922010320**
Product name **FS01 BLUE 5017**

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

It includes the activities of:
- distribution and storage of the product with occasional controlled exposure
- product transfer and preparation including machine loading
- automated or manual application by spray
- automated or manual application by brush / roller
- formation of a film. Air drying
- cleaning and maintenance of equipment
- collection and storage of waste pending delivery

Intended use **Paint for horizontal road markings, based on acrylic resin**

Identified Uses	Industrial	Professional	Consumer
Painting for horizontal road signs	-	**ERC: 8d.** **PROC: 10, 11, 19, 5, 8a.** **PC: 9a.** **LCS: PW.**	-

Uses Advised Against
Any use other than those identified on this sheet.

1.3. Details of the supplier of the safety data sheet

Name **VERNISOL SPA**
Full address **VIA SANTE GIUSEPPE BERTINI, 1**
District and Country **26845 CODOGNO**
ITALIA
Tel. 0377/621250
Fax vernisolinfo@ppg.com
e-mail address of the competent person responsible for the Safety Data Sheet **vernisolinfo@ppg.com**

málning

Söluaðili: Málning hf.
Dalvegur 18
201 Kópavogur
Ísland
Sími: 580 6000
Netfang: oryggisblod@malning.is

Neyðarlínan: Sími 112
Eitrunarmiðstöð Landsspítalans. Sími: 543222

1.4. Emergency telephone number

For urgent inquiries refer to **NPIS – active 24/24 hours**
England, Scotland and Wales - dial 111
Republic of Ireland – 01 809 216

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.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

SECTION 2. Hazards identification ... / >>

2.2. Label elements

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

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

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: extinguish with water spray, foam, chemical powder, carbon dioxide (CO2).
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P233	Keep container tightly closed.
P312	If you feel unwell contact a POISON CENTER or a doctor.

Contains:
FATTY ACIDS, TALLOIL, COMPOSED WITH OLEYLAMINE
N-BUTYL ACETATE
METHYL ETHYL KETONE
1-METHYL-2-METHOXYETHYL ACETATE
MALEIC DIOXIDE
METHYL METHACRYLATE
N-BUTYL METHACRYLATE
FATTY ACIDS, C-18, UNSATURATED TRIMERS COMPOSED WITH 9-OCTADECEN-1-AMINE, (Z) -

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)
N-BUTYL ACETATE			
INDEX	*607-025-00-1*	15 ≤ x < 20	**Flam. Liq. 3 H226, STOT SE 3 H336, EUH066**
EC	*204-658-1*		
CAS	*123-86-4*		
REACH Reg.	*01-2119485493-29*		
METHYL ETHYL KETONE			
INDEX	*606-002-00-3*	5 ≤ x < 9	**Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066**
EC	*201-159-0*		
CAS	*78-93-3*		
REACH Reg.	*01-2119457290-43*		

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

1-METHYL-2-METHOXYETHYL ACETATE

INDEX	*607-195-00-7*	1 ≤ x < 2	**Flam. Liq. 3 H226, STOT SE 3 H336**
EC	*203-603-9*		
CAS	*108-65-6*		
REACH Reg.	*01-2119475791-29*		

1-METHOXY-2-PROPANOL

INDEX	*603-064-00-3*	0,7 ≤ x < 0,8	**Flam. Liq. 3 H226, STOT SE 3 H336**
EC	*203-539-1*		
CAS	*107-98-2*		
REACH Reg.	*01-2119457435-35*		

XYLENE (MIXTURE OF ISOMERS)

INDEX	*601-022-00-9*	0,7 ≤ x < 0,8	**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, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: C**
EC	*215-535-7*		**LD50 Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l**
CAS	*1330-20-7*		
REACH Reg.	*01-2119488216-32*		

FATTY ACIDS, C-18, UNSATURATED TRIMERS COMPOSED WITH 9-OCTADECEN-1-AMINE, (Z) -

INDEX		0,2 ≤ x < 0,3	**Acute Tox. 4 H302, STOT RE 2 H373, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC			**LD50 Oral: >1570 mg/kg**
CAS	*147900-93-4*		
REACH Reg.	*01-2119971821-33-0000*		

FATTY ACIDS, TALLOIL, COMPOSED WITH OLEYLAMINE

INDEX		0,1 ≤ x < 0,2	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Sens. 1A H317**
EC	*288-315-1*		
CAS	*85711-55-3*		
REACH Reg.	*01-2119974148-28-0000*		

METHYL METHACRYLATE

INDEX	*607-035-00-6*	0,1 ≤ x < 0,2	**Flam. Liq. 2 H225, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: D**
EC	*201-297-1*		
CAS	*80-62-6*		
REACH Reg.	*01-2119452498-28*		

N-BUTYL METHACRYLATE

INDEX	*607-033-00-5*	0,1 ≤ x < 0,2	**Flam. Liq. 3 H226, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: D**
EC	*202-615-1*		
CAS	*97-88-1*		
REACH Reg.	*01-2119486394-28*		

MALEIC DIOXIDE

INDEX	*607-096-00-9*	0 ≤ x < 0,001	**Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr. 1B H314, Eye Dam. 1 H318, Resp. Sens. 1 H334, Skin Sens. 1A H317, EUH071**
EC	*203-571-6*		**Skin Sens. 1A H317: ≥ 0,001%**
CAS	*108-31-6*		**LD50 Oral: 1090 mg/kg**
REACH Reg.	*01-2119472428-31*		

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

SECTION 4. First aid measures

4.1. Description of first aid measures

Rescuers, to avoid being exposed, must wear the PPE provided and described in section 8 before intervening.
Immediately remove contaminated, soaked clothing and put it in a safe place.
The rescuer must equip himself with individual protection.
Inhalation: Keep at rest, ventilate with clean air; if symptoms persist or if there are any doubts, consult a doctor.
Eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Seek immediate medical help.
Skin: Wash off immediately with soap and plenty of water.
If symptoms persist or if there are any doubts, consult a doctor.
Ingestion: Call a doctor immediately; do not induce vomiting without prior medical instructions.

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

Cough, nausea, vomiting, headache, unconsciousness, labored breathing, dizziness, narcosis.

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

Exceptional danger: Pulmonary edema, consequent on the S.N.C.

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

Notes to physician: treat symptomatically

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Foam, dry chemical, carbon dioxide (CO_2), water spray.
Extinguishing media which must not be used for safety reasons: do not use a jet of water as it may scatter or spread fire.

5.2. Special hazards arising from the substance or mixture

Harmful gases produced by the flame if incomplete combustion occurs, could consist of: Carbon monoxide (CO), carbon dioxide (CO_2).
Combustion gases from organic materials are generally classified as harmful to the respiratory tract.
The vapors are heavier than air and can move away from the ignition source even covering considerable distances with the consequent risk of a backfire. They can form explosive mixtures with air.

5.3. Advice for firefighters

Fire protection devices must include self-contained breathing protective equipment and complete extinguishing equipment (approved by NIOSH or EN133).
Fire fighting precautions:
Cool the containers / tanks with water spray.
Dike and collect the water used to fight the fire.
Discharge of contaminated water can cause damage to the environment.
Keep people away from fire and upwind.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.
Do not breathe vapors or mists.
Keep people away from loss, upwind.
Ensure adequate ventilation especially in closed areas.
Keep away from heat sources and other causes of fire.
For first aid workers: personal protection see section 8.

6.2. Environmental precautions

Avoid further dripping or leaking.
Do not discharge the product into the aquatic environment without pretreatment (biological treatment plant).

6.3. Methods and material for containment and cleaning up

Stop spillage of the substance where possible without risk.
Dike any spilled material as much as possible.
Methods for cleaning up: dry with inert absorbent material.
Store in suitable, closed containers for disposal.
If large quantities of liquid are spilled, clean up immediately with a shovel or vacuum cleaner.
Eliminate in compliance with current legislation.
Take care to avoid static electricity discharges (which could cause ignition of organic vapors).

6.4. Reference to other sections

Any information regarding 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 open flames, do not smoke or use matches or lighters.
Vapors can ignite with explosion, therefore accumulation must be avoided by keeping doors and windows open and ensuring cross ventilation. Without adequate ventilation, the vapors can accumulate on the ground and ignite even at a distance, if ignited, with the risk of backfire.
Avoid the accumulation of electrostatic charges.

SECTION 7. Handling and storage ... / >>

Connect to an earth outlet in the case of large packagings during the transfer operations and wear antistatic shoes. The strong agitation and the vigorous flow of the liquid in the pipes and equipment can cause the formation and accumulation of electrostatic charges. To avoid the risk of fire and explosion, never use compressed air when handling.
Open the containers carefully, because they can be under pressure.
Do not eat, drink or smoke during use.
Avoid dispersal of the product in the environment.

7.2. Conditions for safe storage, including any incompatibilities

FOR OUTDOOR USE
Frequency of use: up to 300 days / year.
Environment of use: outdoor use.
Operating temperature: Ambient temperature (+ 15 ° C / + 25 ° C).
Other operating conditions that influence worker exposure: implement an adequate workplace hygiene standard. Take into account Occupational Exposure Limits including biological exposure indicators.
Organizational measures to avoid / limit spills, dispersion and exposure: consider technical progress and process updating (including automation) for the elimination of emissions.
Make sure operators are trained to minimize exposure.
Make sure that the ventilation system is regularly subjected to maintenance and operational verification.
Ensure the minimization of the manual phases.
Eliminate spills immediately.
Maintain a good level of general cleanliness.
Conditions and measures related to personal protection, hygiene and health evaluation: wear the PPE indicated in section 8 of the safety data sheet.

7.3. Specific end use(s)

Reference Section 1.2.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

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
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
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
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

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

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	200	45,4	400	90,8	SKIN
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
VLE	PRT	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH			20			

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/l
Normal value for water, intermittent release	0,327	mg/l
Normal value for the food chain (secondary poisoning)	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
Inhalation					289 mg/m3			77 mg/m3
Skin								180 mg/kg bw/d

METHYL METHACRYLATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	50	12	150	36	
AGW	DEU	210	50	420 (C)	100 (C)	
MAK	DEU	210	50	420	100	
VLA	ESP		50		100	
VLEP	FRA	205	50	410	100	
VLEP	ITA		50		100	
VLE	PRT		50		100	
WEL	GBR	208	50	416	100	
OEL	EU		50		100	
TLV-ACGIH		205	50	410	100	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,94	mg/l
Normal value in marine water	0,94	mg/l
Normal value for fresh water sediment	5,74	mg/kg
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	1,47	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
Inhalation			210				210	208 mg/m3
Skin			13,67				1,5 mg/cm2	13,67 mg/kg bw/d

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

N-BUTYL METHACRYLATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	50		150		SKIN
AGW	DEU	210	50	420	100	
MAK	DEU	210	50	420	100	
VLA	ESP		50		100	
VLEP	FRA	205	50	410	100	
VLEP	ITA		50		100	
WEL	GBR	208	50	416	100	
OEL	EU		50		100	
TLV-ACGIH		205	50	410	100	

1-METHOXY-2-PROPANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	270	72,09	550	146,85	SKIN
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
VLA	ESP	375	100	568	150	SKIN
VLEP	FRA	188	50	375	100	SKIN
VLEP	ITA	375	100	568	150	SKIN
VLE	PRT	375	100	568	150	
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 of STP microorganisms	100	mg/l
Normal value for the food chain (secondary poisoning)	4,59	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				33 mg/kg bw/d				
Inhalation				43,9 mg/m3	553,5 mg/m3			369 mg/m3
Skin				78 mg/kg bw/d				183 mg/kg bw/d

METHYL ETHYL KETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	600	200,4	900	300,6	
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	
VLE	PRT	600	200	900	300	
WEL	GBR	600	200	899	300	SKIN
OEL	EU	600	200	900	300	
TLV-ACGIH		590	200	885	300	

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

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	950	196,65	1200	248,4	
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	
VLE	PRT	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

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	VND	2 mg/kg	VND	2 mg/kg	VND	VND	VND	VND
Inhalation	600 mg/m3	600 mg/m3	35,7 mg/m3	35,7 mg/m3	600 mg/m3	600 mg/m3	300 mg/m3	300 mg/m3
Skin	VND	6 mg/kg	VND	6 mg/kg	VND	6 mg/kg	VND	11 mg/kg

MALEIC DIOXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	0,4	0,1			
VLEP	FRA			1		
WEL	GBR	1		3		
TLV-ACGIH		0,01				(IFV)DSEN,RSEN,A4-Resp sens

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,04281	mg/l
Normal value in marine water	0,004281	mg/l
Normal value for fresh water sediment	0,334	mg/kg
Normal value for marine water sediment	0,0334	mg/kg
Normal value for the terrestrial compartment	0,0415	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
Inhalation					0,8 mg/m3	0,8 mg/m3	0,4 mg/m3	0,4 mg/m3
Skin					0,04 mg/cm2	0,04 mg/cm2	0,04 mg/cm2	0,04 mg/cm2

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

1-METHYL-2-METHOXYETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	270		550		SKIN
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
VLE	PRT	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	
OEL	EU	275	50	550	100	SKIN

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,635	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 terrestrial compartment	0,29	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,67 mg/kg				
Inhalation				33 mg/m3	550			275 mg/m3
Skin				54,8 mg/kg				153,5 mg/kg

FATTY ACIDS, C-18, UNSATURATED TRIMERS COMPOSED WITH 9-OCTADECEN-1-AMINE, (Z) -

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	2,46	mg/kg
Normal value for marine water sediment	0,25	mg/kg
Normal value for the food chain (secondary poisoning)	0,47	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,012 mg/kg				
Skin				0,012 mg/kg				0,024 mg/kg

FATTY ACIDS, TALLOIL, COMPOSED WITH OLEYLAMINE

Predicted no-effect concentration - PNEC

Normal value for the food chain (secondary poisoning)	0,47	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,012 mg/kg				
Skin				0,012 mg/kg				0,024 mg/kg

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.

XYLENE (MIXTURE OF ISOMERS)
Indicator: metilippuric acid in the urine.
Period: end of shift.
IBE: 1.5 g / g creatinine.

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

8.2. Exposure controls

The use of appropriate technical measures should always take priority over personal protective equipment (PPE). Personal protective equipment must bear the CE marking which certifies their compliance with current standards. Provide emergency shower with visocular tray. Manage personal protective equipment in such a way as to ensure maximum protection (e.g. reduction of replacement times). Based on the activities carried out, follow the technical measures described below.

Distribution and storage of the product with occasional controlled exposure: no specific measures.
Duration of the daily exposure: up to 15 minutes (sampling).
Transfer of the product and preparation including loading of the machines: use drum transfer pumps or pour carefully from the container.
Wear the PPE shown below.
Duration of daily exposure: up to 1 hour.
Automated or manual spray application: Wear the PPE shown below.
Duration of the daily exhibition: up to 4 hours.
Automated or manual application by brush / roller: Wear the PPE shown below.
Duration of daily exposure: up to 8 hours.
Film formation. Air drying: Make sure the operation is performed externally.
Completely empty the equipment before entering or performing maintenance.
Wear the PPE shown below.
Duration of daily exposure: up to 1 hour.
Collection and storage of waste pending delivery: store washing solutions and product residues in closed containers pending disposal. When handling waste, wear the PPE shown below.
Duration of daily exposure: up to 1 hour.

HAND PROTECTION
Protect your hands with category III work gloves (ref. Standard EN 374). Suitable gloves (protection factor 6, breakthrough time> 480 minutes).
Material (thickness, mm): polyvinyl alcohol-PVA (0.3 mm), PE / EVOH laminate (0.06 mm) or equivalent.

PROTECTION OF THE SKIN
Wear category II professional long-sleeved overalls and safety footwear (ref. Directive 89/686 / EEC and standard EN ISO 20344). Wash with soap and water after removing protective clothing. Evaluate the opportunity to provide antistatic clothing if the work environment presents an explosion hazard.

EYE PROTECTION
Wear airtight protective glasses (ref. Standard EN 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) of the substance or one or more substances present in the product is exceeded, it is advisable to wear a mask with type A filter combined with a type P2 filter or higher whose limit of use will be defined by the manufacturer (ref. Standard EN 14387). If gases or vapors of a different nature were present, combined filters should be provided. The use of respiratory protection means is necessary in case of insufficient technical measures adopted to limit the worker exposure to the threshold values taken into consideration. The protection offered by the masks is however limited. In the event that the substance is odorless or its olfactory threshold is higher than the relative TLV-TWA and in the event of an emergency, wear an open circuit compressed air breathing apparatus (ref. Standard EN 137) or an air intake respirator. external (ref. Standard EN 138).
For the correct choice of the respiratory protection device, refer to EN 529.

ENVIRONMENTAL EXPOSURE CONTROL
Containment and disposal of liquid waste produced on the site. Treat waste water to ensure a reduction efficiency greater than 93.3%. Do not distribute the sludge produced by the wastewater treatment plants on the ground.
Waste treatment and disposal must comply with local / national legislation.
The collection and / or recycling of waste must be carried out only by specialized companies authorized in accordance with local / national legislation.
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		blue		
Odour		fruity aromatic		
Melting point / freezing point	<	-90	°C	Substance:N-BUTYL ACETATE
Initial boiling point		124	°C	Substance:N-BUTYL ACETATE
Flammability		flammable liquid		

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

Lower explosive limit	1,2 % (v/v)	Substance:N-BUTYL ACETATE Temperature: 20 °C
Upper explosive limit	7,5 % (v/v)	Substance:N-BUTYL ACETATE Temperature: 20 °C
Flash point	-6 °C	Method:Punto di infiammabilità più basso delle sostanze contenute in miscela. Substance:METHYL ETHYL KETONE
Auto-ignition temperature	415 °C	Substance:N-BUTYL ACETATE
Decomposition temperature	not available	
pH	not applicable	Reason for missing data:substance/mixture is non-soluble (in water)
Kinematic viscosity	>20,5 mm2/sec	Method:Ref. Norm. ISO 3219-2 Temperature: 40 °C
Solubility	insoluble in water, soluble in the main organic solvents	
Partition coefficient: n-octanol/water	2,3 log Kow	Substance:N-BUTYL ACETATE
Vapour pressure	15 hPa	Substance:N-BUTYL ACETATE Temperature: 20 °C
Density and/or relative density	1,5-1,6 g/cm3	Method:Internal method Ref. ISO 2811-1: 2016 Temperature: 25 °C
Relative vapour density	4	Substance:N-BUTYL ACETATE
Particle characteristics	not applicable	

9.2. Other information

Based on the information available to date, the percentage of titanium dioxide particles with an aerodynamic diameter ≤10 microns contained in the product is less than 1% (determined according to the EN 15051-2 standard).

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Evaporation rate	1 (BUAC=1); 12 (Etere)	Substance:N-BUTYL ACETATE
VOC (Directive 2010/75/EU)	26,23 %	
VOC (volatile carbon)	16,85 %	
Explosive properties	Not classified as explosive	
Oxidising properties	Not classified as an oxidant	
Volatility	high (> = 10 kPa)	

SECTION 10. Stability and reactivity

10.1. Reactivity

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

1-METHOXY-2-PROPANOL
Dissolves various plastic materials.Stable in normal conditions of use and storage.
Absorbs and disolves in water and in organic solvents. With air it may slowly form explosive peroxides.

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

N-BUTYL ACETATE
Decomposes on contact with: water.

1-METHYL-2-METHOXYETHYL ACETATE
Stable in normal conditions of use and storage.
With air it can slowly give peroxides which explode when the temperature rises.

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)

SECTION 10. Stability and reactivity ... / >>

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

METHYL METHACRYLATE

May polymerise on contact with: ammonia,organic peroxides,persulphates.Risk of explosion on contact with: dibenzoyl peroxide,diterbutyl peroxide,propionaldehyde.May react dangerously with: strong oxidising agents.Forms explosive mixtures with: air.

1-METHOXY-2-PROPANOL

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

METHYL ETHYL KETONE

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.

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.

1-METHYL-2-METHOXYETHYL ACETATE

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

10.4. Conditions to avoid

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

METHYL METHACRYLATE

Avoid exposure to: heat,UV rays.Avoid contact with: oxidising substances,reducing substances,acids,bases.

1-METHOXY-2-PROPANOL

Avoid exposure to: air.

METHYL ETHYL KETONE

Avoid exposure to: sources of heat.

N-BUTYL ACETATE

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

1-METHYL-2-METHOXYETHYL ACETATE

Avoid overheating. Avoid the accumulation of electrostatic charges. Avoid any source of ignition.

10.5. Incompatible materials

1-METHOXY-2-PROPANOL

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

METHYL ETHYL KETONE

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

N-BUTYL ACETATE

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

1-METHYL-2-METHOXYETHYL ACETATE

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

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

METHYL METHACRYLATE

When heated to decomposition releases: harsh fumes,zinc alloys.

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-METHOXYETHYL ACETATE
The main route of entry is the skin, while the respiratory one is less important, given the low vapor pressure of the product.

Information on likely routes of exposure

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

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

SECTION 11. Toxicological information ... / >>

substance.

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

1-METHYL-2-METHOXYETHYL ACETATE
WORKERS: inhalation; contact with the skin.

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-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.

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.

1-METHYL-2-METHOXYETHYL ACETATE
Above 100 ppm there is irritation of the ocular, nasal and oropharyngeal mucous membranes. At 1000 ppm there are balance disturbances and severe eye irritation. Clinical and biological tests performed on the exposed volunteers did not reveal any anomalies. Acetate produces greater skin and eye irritation on direct contact. No chronic effects on humans are reported (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) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

XYLENE (MIXTURE OF ISOMERS)

LD50 (Dermal):	1100 mg/kg Specie Coniglio/Rabbit
LD50 (Oral):	> 2000 mg/kg Specie Ratto/Rat
LC50 (Inhalation vapours):	27571 mg/l/4h Specie Ratto/Rat

METHYL METHACRYLATE

LD50 (Dermal):	> 5000 mg/kg Coniglio/Rabbit
LD50 (Oral):	> 5000 mg/kg Ratto/Rat
LC50 (Inhalation vapours):	29,8 mg/l/4h Ratto/Rat

1-METHOXY-2-PROPANOL

LD50 (Dermal):	2000 mg/kg Rat
LD50 (Oral):	4016 mg/kg Rat
LC50 (Inhalation vapours):	20 mg/l/4h Rat

SECTION 11. Toxicological information ... / >>

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

N-BUTYL ACETATE
LD50 (Dermal): > 14112 mg/kg Coniglio, Rabbit
LD50 (Oral): > 10760 mg/kg Ratto, Rat
LC50 (Inhalation vapours): 20 mg/l/4h

MALEIC DIOXIDE
LD50 (Dermal): 2620 mg/kg Species: Rat/Ratto
LD50 (Oral): 1090 mg/kg Species: Rat/Ratto
LC50 (Inhalation mists/powders): > 4,35 mg/l/1h Species: Rat/Ratto

1-METHYL-2-METHOXYETHYL ACETATE
LD50 (Dermal): > 5000 mg/kg
LD50 (Oral): > 5000 mg/kg

FATTY ACIDS, C-18, UNSATURATED TRIMERS COMPOSED WITH 9-OCTADECEN-1-AMINE, (Z) -
LD50 (Oral): > 1570 mg/kg (Ratto, maschio e femmina) BLP: si

FATTY ACIDS, TALLOIL, COMPOSED WITH OLEYLAMINE
LD50 (Oral): > 2000 mg/kg (Ratto, femmina) Metodo: Linee Guida 423 per il Test dell'OECD BLP: si

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

METHYL METHACRYLATE
Species: Rabbit / Rabbit
Result: non-irritating - slightly irritating
Remarks: in case of prolonged and / or frequent contact with the skin, irritation cannot be excluded
Skin irritation Category 2 (UN-GHS).

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

METHYL METHACRYLATE
Species: Rabbit / Rabbit
Result: non-irritating - slightly irritating.

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

METHYL METHACRYLATE
Species: Mouse
Result: possible skin sensitization
Method: OECD TG 429
Human allergic reactions have been observed with different incidence (symptoms: head pains, eye irritation, skin diseases)
Remarks: Skin sensitization Category 1B (UN-GHS).

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".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

METHYL METHACRYLATE
Rat: inhalative, 2 years
Outcome: mucosal lesions in the nose at 400 ppm NOAEL 25 ppm
Rat: in drinking water, 2 years
Outcome: no toxic effect NOAEL 2000 ppm.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: >20,5 mm2/sec

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

FATTY ACIDS, C-18, UNSATURATED TRIMERS COMPOSED WITH 9-OCTADECEN-1-AMINE, (Z) -
Toxicity to fish: LL50 (Oncorhynchus mykiss (rainbow trout)):> 100 mg / l
Exposure time: 96 h
Test type: Semi-static test
Method: OECD GPL Test Guideline 203: yes
Toxicity to daphnia and other aquatic invertebrates:
EL50 (Daphnia magna (Water flea)):> 100 mg / l
Exposure time: 48 hours
Test type: Static test
OECD TG 202 BPL method: yes
Toxicity to algae:
EC50r (Pseudokirchneriella subcapitata (green algae)):
7.89 mg / l
Exposure time: 72 h
Test type: Static test
Monitoring by analysis: Yes
Method: OECD TG 209 BPL: yes
Toxicity to bacteria:
EC50 (Activated sludge):> 1,000 mg / l
Exposure time: 3 h
Test type: static test
Method: OECD TG 209 BPL: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
NOELR:> 100 mg / l
Exposure time: 21 d
Species: Daphnia magna (Large water flea)
Test type: semi-static test
Method: OECD TG 211 BPL: yes.

METHYL METHACRYLATE

LC50 - for Fish	> 79 mg/l/96h Oncorhynchus mykiss, (trota iredea) - OECD TG 203
EC50 - for Crustacea	69 mg/l/48h Daphnia magna - OECD TG 202
EC50 - for Algae / Aquatic Plants	> 110 mg/l/72h Selenastrum capricornutum - OECD TG 201
Chronic NOEC for Fish	9,4 mg/l Danio rerio (pesce zebra) - OECD TG 210
Chronic NOEC for Crustacea	37 mg/l Daphnia magna, 21 d (OECD TG 202)
Chronic NOEC for Algae / Aquatic Plants	> 100 mg/l Selenastrum capricornutum - OECD TG 201

SECTION 12. Ecological information ... / >>

1-METHOXY-2-PROPANOL

LC50 - for Fish	> 100 mg/l/96h
EC50 - for Crustacea	> 21100 mg/l/48h Specie Dafnie - 21100-25900 mg/l

N-BUTYL ACETATE

LC50 - for Fish	18 mg/l/96h Pimephales promelas (Cavedano americano)
EC50 - for Crustacea	44 mg/l/48h Daphnia Magna
EC50 - for Algae / Aquatic Plants	397 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	23,2 mg/l mg/l/21g Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	196 mg/l Selenastrum capricornutum (alghe)

MALEIC DIOXIDE

LC50 - for Fish	75 mg/l/96h
EC50 - for Crustacea	43 mg/l/48h
EC50 - for Algae / Aquatic Plants	74,5 mg/l/72h

1-METHYL-2-METHOXYETHYL ACETATE

LC50 - for Fish	> 100 mg/l/96h
EC50 - for Crustacea	> 100 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h
Chronic NOEC for Fish	> 10 mg/l Basato su dati sperimentali
Chronic NOEC for Crustacea	100 mg/l Basato su dati sperimentali

FATTY ACIDS, C-18, UNSATURATED TRIMERS COMPOSED WITH 9-OCTADECEN-1-AMINE, (Z) -

EC50 - for Algae / Aquatic Plants	789 mg/l/72h Pseudokirchneriella subcapitata; Prova statica, L.Guida 201 OECD

FATTY ACIDS, TALLOIL, COMPOSED WITH OLEYLAMINE

LC50 - for Fish	> 100 mg/l/96h Tipo di test: Prova semistatica Metodo: Linee Guida 203 per il test dell'OECD BPL: si
EC50 - for Crustacea	15,2 mg/l/48h Pulce d'acqua grande Tipo di test: Prova statica Metodo OECD TG 202
EC50 - for Algae / Aquatic Plants	7,43 mg/l/72h Pseudokirchneriella subcapitata: alghe cloroficee Metodo: OECD TG 201 BPL: si
Chronic NOEC for Fish	150 mg/l/48 h Tipo di test: Prova statica Metodo DIN 38412 BPL: no

12.2. Persistence and degradability

XYLENE (MIXTURE OF ISOMERS)
Solubility in water 100 - 1000 mg/l
Rapidly degradable

METHYL METHACRYLATE
Degradability: information not available

N-BUTYL METHACRYLATE
Solubility in water 15300 mg/l
Rapidly degradable

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

METHYL ETHYL KETONE
Solubility in water > 10000 mg/l
Rapidly degradable

N-BUTYL ACETATE
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

MALEIC DIOXIDE
Rapidly degradable

1-METHYL-2-METHOXYETHYL ACETATE
Solubility in water > 10000 mg/l

SECTION 12. Ecological information ... / >>

FATTY ACIDS, C-18, UNSATURATED TRIMERS COMPOSED WITH 9-OCTADECEN-1-AMINE, (Z) -
NOT rapidly degradable

FATTY ACIDS, TALLOIL, COMPOUNDED WITH OLEYLAMINE
Rapidly degradable

12.3. Bioaccumulative potential

XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: n-octanol/water	3,12
BCF	25,9
N-BUTYL METHACRYLATE	
Partition coefficient: n-octanol/water	1,38
1-METHOXY-2-PROPANOL	
Partition coefficient: n-octanol/water	< 1
METHYL ETHYL KETONE	
Partition coefficient: n-octanol/water	0,3
N-BUTYL ACETATE	
Partition coefficient: n-octanol/water	2,3
BCF	15 Valore calcolato
MALEIC DIOXIDE	
Partition coefficient: n-octanol/water	-2,61
1-METHYL-2-METHOXYETHYL ACETATE	
Partition coefficient: n-octanol/water	1,2

12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: soil/water	2,73
N-BUTYL METHACRYLATE	
Partition coefficient: soil/water	0,94
N-BUTYL ACETATE	
Partition coefficient: soil/water	1,27
MALEIC DIOXIDE	
Partition coefficient: soil/water	6,314

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

The appropriate management of the waste of the mixture and / or its container must be determined in accordance with the provisions of Directive 2008/98 / EC and subsequent amendments, taking into account Regulation (EU) no. 1357/2014 and of the Decision (EU) no. 955/2014.
Waste management methods must be assessed on a case-by-case basis, in relation to the composition of the waste itself.

13.1. Waste treatment methods

Reuse if possible.
Waste management is performed without endangering human health and without harming the environment and in particular without creating risks for water, air, soil, fauna or flora.
Do not dispose of waste in sewers or waste channels.
Product residues must be disposed of in accordance with current regulations.
The transport of waste must also be carried out in compliance with the provisions of the regulations on the transport of dangerous goods.
CONTAMINATED PACKAGING.
The generation of waste should be avoided or minimized wherever possible.
Incineration and landfilling should only be considered when recycling is not practicable.
Keep the label (s) on the packaging. Deliver to an authorized waste management entity.
Containers and packaging contaminated with substances or preparations must be treated like the product and sent for recovery or disposal in compliance with national regulations on waste management.
EUROPEAN WASTE CODE.
The waste legislation does not allow the identification of CER codes for waste containing the substance / preparation referred to in this document, as they must be identified in accordance with Annex D to Part IV of Legislative Decree 192/06 based on information not available before using the product.

DANGER CHARACTERISTICS FOR WASTE.
With reference to Regulation (EU) no. 1357/2014, the hazard characteristics for the intact product are:
HP3
Flammable

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
IMDG: PAINT
IATA: PAINT

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: II
The product, if packed in packages of less than 450 litres, can be assigned to P.G. III as provided for by 2.2.3.1.4 of the ADR.
The product, if packed in packages of less than 450 litres, can be assigned to P.G. III as provided for by 2.3.2.2 of the IMDG Code.
The product, if packed in packages of less than 30 litres, can be assigned to P.G. III as provided for by 3.3.3.1.1 of the DGR IATA.

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information ... / >>

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special provision: 163, 367, 640C, 650		
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Passengers:	Maximum quantity: 5 L	Packaging instructions: 353
	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

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.

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances
XYLENE (MIXTURE OF ISOMERS)
METHYL METHACRYLATE
N-BUTYL METHACRYLATE
1-METHOXY-2-PROPANOL
METHYL ETHYL KETONE
N-BUTYL ACETATE
1-METHYL-2-METHOXYETHYL ACETATE
FATTY ACIDS, C-18, UNSATURATED TRIMERS COMPOSED WITH 9-OCTADECEN-1-AMINE, (Z) -
This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

SECTION 16. Other information

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

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
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
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.

Use descriptor system:

ERC	8d	Widespread use of non- reactive processing aid (no inclusion into or onto article, outdoor)
LCS	PW	Widespread use by professional workers
PC	9a	Coatings and paints, thinners, paint removers
PROC	10	Roller application or brushing
PROC	11	Non industrial spraying
PROC	19	Manual activities involving hand contact
PROC	5	Mixing or blending in batch processes
PROC	8a	Transfer of substance or mixture (charging and discharging) at non- dedicated facilities

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%

SECTION 16. Other information ... / >>

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

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
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.
DERIVED SAFE USE INFORMATION
This information has been obtained from the consolidation of the exposure scenarios available for the relevant substances contained in the mixture using the LCID (Lead Component IDentification Methodology) method proposed by CEFIC (REACH Practical Guide on Safe Use Information for Mixtures under REACH, Final version 6.1 – February 2016). The principle behind this method is that the safe use of a mixture is established by the substances that have contributed to its CLP (Lead Components) classification.

SECTION 16. Other information ... / >>

It follows that by adopting the operational conditions and risk management measures identified for the relevant scenario(s) of the Lead Component(s), the use of the mixture should be considered safe.

Guidance for downstream users to assess whether they are making safe use of the mixture.
When the operational conditions and risk management measures described are adopted, the use of the mixture is considered safe.
Where additional risk management measures or operational conditions are used, operators should ensure that risks are limited to an equivalent or higher level.

Changes to previous review:
The following sections were modified:
02 / 03 / 08 / 09 / 11 / 14 / 15 / 16.