

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: **597.99I.001**
Product name: **ACRILUX 9007 PLUS**
UFI: **GV8C-F02Y-600T-7WGR**

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

Intended use: **Coating product or related for industrial purpose. Only for professional use.**

1.3. Details of the supplier of the safety data sheet

Name: **ASTRA VERNICI S.r.l.**
Full address: **Via Della Industria, 4**
District and Country: **24052 Azzano San Paolo (BG) Italia**
Tel.: **+39 035 530019**
Fax: **+39 035 531714**
e-mail address of the competent person responsible for the Safety Data Sheet: **msds@astravernici.it**

1.4. Emergency telephone number

For urgent inquiries refer to:
REPUBLIC OF IRELAND :
National Poisons Information Centre
24 hours per day and 365 days a year
01 837 9964
01 809 2566

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND :
National Health Service (NHS)
Telephone number: 111
Emergency number : 999

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 3	H226	Flammable liquid and vapour.
Acute toxicity, category 4	H302	Harmful if swallowed.

2.2. Label elements

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

Hazard pictograms:



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

SECTION 2. Hazards identification ... / >>

Signal words: Warning

Hazard statements:

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH208 Contains: REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE ETHYLENE BIS(3-MERCAPTOPROPIONATE) 2-HYDROXYETHYL METHACRYLATE METHYL METHACRYLATE
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P370+P378 In case of fire: Use dry chemical or CO2 to extinguish.
P264 Accurately wash thoroughly after handling.

Contains: HEPTAN-2-ONE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage $\geq$ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration $\geq$ 0.1%.

SECTION 3. Composition/information on ingredients
3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
HEPTAN-2-ONE		
INDEX 606-024-00-3	30 ≤ x < 35	Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H332 LD50 Oral: 1600 mg/kg bw, LC50 Inhalation vapours: 16,7 mg/l/4h
EC 203-767-1		
CAS 110-43-0		
REACH Reg. 01-2119902391-49-xxxx		
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-xxxx		
METHYL METHACRYLATE		
INDEX 607-035-00-6	0,64 ≤ x < 0,65	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-xxxx		
2-HYDROXYETHYL METHACRYLATE		
INDEX 607-124-00-X	0,64 ≤ x < 0,65	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: D
EC 212-782-2		
CAS 868-77-9		
REACH Reg. 01-2119490169-29-0000		
XYLENE		
INDEX 601-022-00-9	0,05 ≤ x < 0,06	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: C STA Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l
EC 215-535-7		
CAS 1330-20-7		
REACH Reg. 01-2119488216-32-xxxx		

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

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

ETHYLENE BIS(3-MERCAPTOPROPIONATE)

INDEX 0,03 ≤ x < 0,05

Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Chronic 1 H410 M=1
LD50 Oral: 500 mg/kg bw

EC 245-044-3

CAS 22504-50-3

REACH Reg. 01-2120775145-52-0000

ETHYLBENZENE

INDEX 601-023-00-4 0,01 ≤ x < 0,03

Flam. Liq. 2 H225, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Aquatic Chronic 3 H412
LC50 Inhalation vapours: 17,2 mg/l/4h

EC 202-849-4

CAS 100-41-4

REACH Reg. 01-2119489370-35-xxxx

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

INDEX 0,01 ≤ x < 0,03

Repr. 2 H361f, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1

EC 915-687-0

CAS 1065336-91-5

REACH Reg. 01-2119491304-40

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

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

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

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

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

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

Information not available

SECTION 5. Firefighting measures
5.1. Extinguishing media
SUITABLE EXTINGUISHING EQUIPMENT

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

UNSUITABLE EXTINGUISHING EQUIPMENT

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

5.2. Special hazards arising from the substance or mixture
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

METHYL METHACRYLATE

Heat may cause the product to polymerise, which could lead to explosion.

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.

 astravernici italian performance coatings	ASTRA VERNICI S.r.l. 597.991.001 - ACRILUX 9007 PLUS	Revision nr.33 Dated 28/08/2024 Printed on 28/08/2024 Page n. 4 / 18 Replaced revision:32 (Dated 28/03/2024) EN															
Safety Data Sheet According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH																	
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.																	
7.3. Specific end use(s)																	
Information not available																	
SECTION 8. Exposure controls/personal protection																	
8.1. Control parameters																	
Regulatory references: <table><tr><td>BGR</td><td>България</td><td>НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)</td></tr><tr><td>CZE</td><td>Česká Republika</td><td>NAŘÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci</td></tr><tr><td>DEU</td><td>Deutschland</td><td>Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58</td></tr><tr><td>DNK</td><td>Danmark</td><td>Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019</td></tr><tr><td>ESP</td><td>España</td><td>Límites de exposición profesional para agentes químicos en España 2023</td></tr></table>			BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)	CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci	DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58	DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019	ESP	España	Límites de exposición profesional para agentes químicos en España 2023
BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)															
CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci															
DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58															
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019															
ESP	España	Límites de exposición profesional para agentes químicos en España 2023															

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

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

FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France Décret n° 2021-1849 du 28 décembre 2021
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α' 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ "σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία"»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
LTU	Lietuva	Jsakymas dėl lietuvis higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai“ patvirtinimo
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2023

HEPTAN-2-ONE
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	238		476		SKIN
TLV	DNK	238	50	476	50	SKIN
VLA	ESP	237	50	100	475	
VLEP	FRA	238	50	475	100	SKIN
AK	HUN	238		476		SKIN
VLEP	ITA	238	50	475	100	SKIN
NDS/NDSch	POL	238				
TLV	ROU	238	50	475	100	
OEL	EU	238	50	475	100	

Predicted no-effect concentration - PNEC

Normal value in fresh water	98,2	µg/L
Normal value in marine water	9,82	µg/L
Normal value for fresh water sediment	1,89	mg/kg/ bw
Normal value for marine water sediment	189	µg/L bw
Normal value of STP microorganisms	12,5	mg/l
Normal value for the terrestrial compartment	321	µg/kg soil dw

Normal value for the atmosphere

NPI

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers			
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic
	local	systemic	local	systemic	local	systemic	systemic
Oral		NPI		23,32 mg/kg bw/d			
Inhalation	NPI	NPI	NPI	84,31 mg/m3	NPI	1516 mg/m3	394,25 mg/m3
Skin	NPI	NPI	NPI	23,32 mg/kg bw/d	NEA	NPI	54,27 mg/kg bw/d

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

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	BGR	710		950		
TLV	CZE	241		723		
AGW	DEU	300	62	600	124	
MAK	DEU	480	100	960	200	
TLV	DNK	241	50	723	150	E
VLA	ESP	241	50	723	150	
VLEP	FRA	241	50	723	150	
TLV	GRC	710	150	950	200	
AK	HUN	241	50	723	150	
GVI/KGVI	HRV	241	50	723	150	
VLEP	ITA	241	50	723	150	
RD	LTU	241	50	723	150	
VLE	PRT	241	50	723	150	
NDS/NDSch	POL	240		720		
TLV	ROU	241	50	723	150	
MV	SVN	300	62	600	124	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	

2-HYDROXYETHYL METHACRYLATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	482	µg/L
Normal value in marine water	48,2	µg/L
Normal value for fresh water sediment	3,79	mg/kg/d
Normal value for marine water sediment	3,79	mg/kg/d
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	476	µg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		830 µg/kg bw/day				
Inhalation	NPI	NPI	NPI	1,45 mg/m³	NPI	NPI	NPI	4,9 mg/m³
Skin	NPI	NPI	NPI	830 µg/kg bw/day	NPI	NPI	NPI	1,39 mg/kg bw/day

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

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

METHYL METHACRYLATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR		50		100	
TLV	CZE	50	12	150	36	
AGW	DEU	210	50	420	100	
MAK	DEU	210	50	420	100	
TLV	DNK	102	25		100	SKIN E
VLA	ESP		50		100	
VLEP	FRA	205	50	410	100	
TLV	GRC		50		100	
AK	HUN	208	50	415	100	SKIN
GVI/KGVI	HRV	50		100		SKIN
VLEP	ITA		50		100	
RD	LTU	208	50	416	100	
VLE	PRT		50		100	
NDS/NDSch	POL	100		300		
TLV	ROU	205	50	410	100	
MV	SVN	210	50	420	100	
ESD	TUR		50		100	
WEL	GBR	208	50	416	100	
OEL	EU		50		100	
TLV-ACGIH		205	50	410	100	

XYLENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	221	50	442	100	SKIN
TLV	CZE	200	45,4	400	90,8	SKIN
AGW	DEU	220	50	440	100	SKIN
MAK	DEU	220	50	440	100	SKIN
TLV	DNK	109	25			SKIN E
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
TLV	GRC	435	100	650	150	
AK	HUN	221	50	442	100	SKIN
GVI/KGVI	HRV	221	50	442	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
RD	LTU	221	50	442	100	SKIN
VLE	PRT	221	50	442	100	SKIN
NDS/NDSch	POL	100		200		SKIN
TLV	ROU	221	50	442	100	SKIN
MV	SVN	221	50	442	100	SKIN
ESD	TUR	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH			20			

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

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

ETHYLENE BIS(3-MERCAPTOPROPIONATE)
Predicted no-effect concentration - PNEC

Normal value in fresh water	420	ng/L
Normal value in marine water	42	ng/L
Normal value for fresh water sediment	6	µg/kg dw
Normal value for marine water sediment	600	µg/kg dw
Normal value of STP microorganisms	3,1	mg/l
Normal value for the terrestrial compartment	953	ng/kg soil dw

Normal value for the atmosphere

NPI

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic local	Chronic systemic	Effects on workers			
	Acute local	Acute systemic			Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		120 µg/kg bw/day				
Inhalation	HIGH	209 µg/m³	HIGH	NPI	HIGH	1,18 mg/m3	HIGH	NPI
Skin	HIGH	VND	HIGH	120 µg/kg bw/day	HIGH	VND	HIGH	336 µg/kg bw/day

ETHYLBENZENE
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	435		545		SKIN
TLV	CZE	200	45,4	500	113,5	SKIN
AGW	DEU	88	20	176	40	SKIN
MAK	DEU	88	20	176	40	SKIN
TLV	DNK	217	50	434	100	SKIN E
VLA	ESP	441	100	884	200	SKIN
VLEP	FRA	88,4	20	442	100	SKIN
TLV	GRC	435	100	545	125	
AK	HUN	442	100	884	200	SKIN
GVI/KGVI	HRV	442	100	884	200	SKIN
VLEP	ITA	442	100	884	200	SKIN
RD	LTU	442	100	884	200	SKIN
VLE	PRT	442	100	884	200	SKIN
NDS/NDSch	POL	200		400		SKIN
TLV	ROU	442	100	884	200	SKIN
MV	SVN	442	100	884	200	SKIN
ESD	TUR	442	100	884	200	SKIN
WEL	GBR	441	100	552	125	SKIN
OEL	EU	442	100	884	200	SKIN
TLV-ACGIH		87	20			

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL
1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Predicted no-effect concentration - PNEC

Normal value in fresh water	22	µg/L
Normal value in marine water	220	ng/L
Normal value for fresh water sediment	105	mg/kg/d
Normal value for marine water sediment	110	µg/kg dw
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	210	µg/kg soil dw

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic local	Chronic systemic	Effects on workers			
	Acute local	Acute systemic			Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		180 µg/kg bw/day				
Inhalation		NPI		310 µg/m3		NPI		1.27 mg/m3
Skin		NPI		900 µg/kg bw/day		NPI		1.8 mg/kg

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

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

bw/day

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

XILENE (MISCELA DI ISOMERI): Adopted Biological Exposure Indices (BEIs) - ACGIH (2012): Determinant: Methylhippuric acids in urine / Sampling Time: End of shift / BEI@: 1,5 g/g creatinine / Notation: none.

ETHYLBENZENE

ETILBENZENE: Adopted Biological Exposure Indices (BEIs) - ACGIH (2012): Determinant 1: Sum of mandelic acid and phenylglyoxylic acid in urine / Sampling Time: End of shift at end of workweek / BEI@: 0,7 g/g / Notation: Sq =Semiquantitative - Determinant 2: (Ethyl benzene in end-exhaled air) / Sampling Time: Not critical / BEI@: - / Notation: Sq = Semiquantitative.

8.2. Exposure controls

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

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

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

HAND PROTECTION

Protect hands with category III work gloves.

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

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

SKIN PROTECTION

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

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

EYE PROTECTION

Wear airtight protective goggles (see standard EN ISO 16321).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).

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

ENVIRONMENTAL EXPOSURE CONTROLS

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

SECTION 9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	yellowish	
Odour	typical of solvent	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	flammable liquid	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	23 ≤ T ≤ 60 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Kinematic viscosity	> 20,5 mm2/s	Temperature: 20 °C

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

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

Dynamic viscosity	16 "	Method:Ford Cup 4 Remark:100 cc. Temperature: 20 °C
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	0,95 kg/l	
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)	44,78 %		
VOC (Directive 2010/75/EU)	53,88 %	- 511,83	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.

N-BUTYL ACETATE

Decomposes on contact with: water.

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.

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.

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.

XYLENE

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

ETHYLBENZENE

Reacts violently with: strong oxidants.Attacks various types of plastic materials.May form explosive mixtures with: air.

10.4. Conditions to avoid

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

N-BUTYL ACETATE

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

METHYL METHACRYLATE

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

10.5. Incompatible materials
N-BUTYL ACETATE

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

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.

ETHYLBENZENE

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

May develop: methane,styrene,hydrogen,ethane.

SECTION 11. Toxicological information

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

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

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

N-BUTYL ACETATE

WORKERS: inhalation; contact with the skin.

XYLENE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

ETHYLBENZENE

WORKERS: inhalation; contact with the skin.

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

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

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.

XYLENE

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

ETHYLBENZENE

As the counterparts of benzene, may have an acute effect on the central nervous system, with depression, narcosis, often preceded by dizziness and associated with headache (Ispesi). Is irritating for skin, conjunctiva and respiratory tract.

Interactive effects

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).

XYLENE

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.

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	1428,57 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

HEPTAN-2-ONE

LD50 (Dermal):	2000 mg/kg bw (Rat)
LD50 (Oral):	1600 mg/kg bw Rat
LC50 (Inhalation vapours):	16,7 mg/l/4h Air (Rat)

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

SECTION 11. Toxicological information ... / >>

N-BUTYL ACETATE

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

2-HYDROXYETHYL METHACRYLATE

LD50 (Dermal):	5000 mg/kg bw Rabbit
LD50 (Oral):	2000 mg/kg bw 2 000 - 5 564 mg/kg bw (Rat)

XYLENE

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):	26 mg/l/4h Rat

ETHYLENE BIS(3-MERCAPTOPROPIONATE)

LD50 (Oral):	500 mg/kg bw cut-off 500 mg/kg bw (Rat) - Category 4 based on GHS criteria
LC50 (Inhalation vapours):	3,363 mg/l/4h (Rat) - GHS criteria not met

ETHYLBENZENE

LD50 (Dermal):	15354 mg/kg Rabbit
LD50 (Oral):	3500 mg/kg Rat
LC50 (Inhalation vapours):	17,2 mg/l/4h Rat

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL
1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

LD50 (Dermal):	3170 mg/kg bw Rat
LD50 (Oral):	3230 mg/kg bw Rat

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
 ETHYLENE BIS(3-MERCAPTOPROPIONATE)
 2-HYDROXYETHYL METHACRYLATE
 METHYL METHACRYLATE

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

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".

ETHYLBENZENE

Classified in Group 2B (possible human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 2000).
 Classified in Group D (not classifiable as a human carcinogen) by the US Environmental Protection Agency (EPA) - (US EPA file on-line 2014).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

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

SECTION 11. Toxicological information ... / >>

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

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

SECTION 12. Ecological information

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

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE

LC50 - for Fish	900 µg/L
EC50 - for Algae / Aquatic Plants	> 420 µg/L 420 - 1 680 µg/L
Chronic NOEC for Crustacea	> 1 mg/l 1 - 6.3 mg/L

HEPTAN-2-ONE

LC50 - for Fish	131 mg/l/96h
EC50 - for Crustacea	90,1 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 75,5 mg/l/72h 75.5 - 98.2 mg/L
Chronic NOEC for Algae / Aquatic Plants	42,68 mg/l 3 days

ETHYLENE BIS(3-MERCAPTOPROPIONATE)

LC50 - for Fish	59,4 µg/L 59.4 - 420 µg/L
EC50 - for Algae / Aquatic Plants	120 µg/L 120 - 650 µg/L

2-HYDROXYETHYL METHACRYLATE

LC50 - for Fish	100 mg/l
EC50 - for Crustacea	380 mg/l
EC50 - for Algae / Aquatic Plants	345 mg/l

12.2. Persistence and degradability

XYLENE

Solubility in water	100 - 1000 mg/l
Rapidly degradable	

METHYL METHACRYLATE

Solubility in water	15300 mg/l
Rapidly degradable	

ETHYLBENZENE

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

N-BUTYL ACETATE

Solubility in water	1000 - 10000 mg/l
---------------------	-------------------

12.3. Bioaccumulative potential

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

SECTION 12. Ecological information ... / >>

XYLENE	
Partition coefficient: n-octanol/water	3,12
BCF	25,9
METHYL METHACRYLATE	
Partition coefficient: n-octanol/water	1,38
ETHYLBENZENE	
Partition coefficient: n-octanol/water	3,6
N-BUTYL ACETATE	
Partition coefficient: n-octanol/water	2,3
BCF	15,3

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

 On the basis of available data, the product does not contain any PBT or vPvB in percentage $\geq$ than 0,1%.

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations
13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

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

SECTION 14. Transport information
14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 1263

14.2. UN proper shipping name

ADR / RID:	PAINT
IMDG:	PAINT
IATA:	PAINT

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

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special provision: 163, 367, 650		
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Passengers:	Maximum quantity: 60 L	Packaging instructions: 355
	Special provision:	A3, A72, A192	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: P5c

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

Product		
Point	3 - 40	
Contained substance		
Point	75	XYLENE
		REACH Reg.: 01-2119488216-32-xxxx
Point	75	OCTAMETHYLCYCLOTETRAILOXANE
Point	75	2-HYDROXYETHYL METHACRYLATE
		REACH Reg.: 01-2119490169-29-0000
Point	75	METHYL METHACRYLATE
		REACH Reg.: 01-2119452498-28-xxxx
Point	75	ISO-BUTANOL
		REACH Reg.: 01-2119484609-23-xxxx
Point	75	DIOCTYL TIN DILAUATE
		REACH Reg.: 01-2119979527-19-0000

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage $\geq$ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

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

SECTION 15. Regulatory information ... / >>

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

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

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
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
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
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 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H361f	Suspected of damaging fertility.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
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.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

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

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

SECTION 16. Other information ... / >>

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

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707

- 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

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

SECTION 16. Other information ... / >>

in Section 12.

Changes to previous review:
The following sections were modified:
01 / 15.