

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: **AUS.FN.002**
 Product name: **FASTENER PU 600**
 UFI: **UT74-U0WN-700T-1TCV**

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.
Reproductive toxicity, category 1B	H360	May damage fertility or the unborn child.
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.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

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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:

H226	Flammable liquid and vapour.
H360	May damage fertility or the unborn child.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking. Restricted to professional users.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P201	Obtain special instructions before use.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P308+P313	IF exposed or concerned: Get medical advice / attention.
P370+P378	In case of fire: Use dry chemical or CO2 to extinguish.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.

Contains:

DIOCTYL TIN DILAURATE
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 GLYCOL BISTHIOGLYCOLATE
ETHYLENE BIS(3-MERCAPTOPROPIONATE)
N-BUTYL ACETATE
PENTAERYTHRITOL TETRAKIS(3-MERCAPTOPROPIONATE)

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)
N-BUTYL ACETATE		
INDEX 607-025-00-1	90 ≤ x < 95	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1		
CAS 123-86-4		
REACH Reg. 01-2119485493-29-xxxx		
DIOCTYL TIN DILAURATE		
INDEX	1,99 ≤ x < 2,01	Repr. 1B H360, STOT SE 2 H371
EC 222-883-3		
CAS 3648-18-8		
REACH Reg. 01-2119979527-19-0000		

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

ETHYLENE BIS(3-MERCAPTOPROPIONATE)

INDEX 1,39 ≤ x < 1,41

Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Sens. 1A H317, Aquatic Chronic 1 H410 M=1

EC 245-044-3

CAS 22504-50-3

REACH Reg. 01-2120775145-52-0000

LD50 Oral: 500 mg/kg bw
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 0,69 ≤ x < 0,71

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

ETHYLENE GLYCOL BISTHIOGLYCOLATE

INDEX 0,24 ≤ x < 0,26

Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1

EC 204-653-4

CAS 123-81-9

REACH Reg. 01-2120775150-61-0000

LD50 Oral: 200 mg/kg bw, STA Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l
PENTAERYTHRITOL TETRAKIS(3-MERCAPTOPROPIONATE)

INDEX 0,14 ≤ x < 0,16

Acute Tox. 4 H302, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1

EC 231-472-8

CAS 7575-23-7

REACH Reg. 01-2119486981-23-0000

LD50 Oral: 1000 mg/kg bw
BIS(ISOPROPYL)NAPHTHALENE

INDEX 0,14 ≤ x < 0,16

Asp. Tox. 1 H304, Aquatic Chronic 1 H410 M=1

EC 254-052-6

CAS 38640-62-9

REACH Reg. 01-2119565150-48-0000

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

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

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

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

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

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

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

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

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

Information not available

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

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

Safety Data Sheet According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH**SECTION 5. Firefighting measures** ... / >>**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

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

5.3. Advice for firefighters**GENERAL INFORMATION**

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

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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

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

Block the leakage if there is no hazard.

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

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

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

6.4. Reference to other sections

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

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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

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SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	NAŘÍZENÍ VLÁDY 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
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)
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

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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	

DIOCTYL TIN DILAUATE
Predicted no-effect concentration - PNEC

Normal value in fresh water	NPI
Normal value in marine water	NPI
Normal value for fresh water sediment	NPI
Normal value for marine water sediment	NPI
Normal value of STP microorganisms	NPI
Normal value for the terrestrial compartment	NPI
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	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Oral		NPI		500 ng/kg bw/day				
Inhalation	NPI	NPI	NPI	900 ng/m³	NPI	NPI	NPI	3,5 µg/m³
Skin	NPI	NPI	NPI	NPI	NPI	NPI	NPI	NPI

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				Effects on workers			
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	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

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

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		Chronic local	Chronic systemic
	Acute local	Acute systemic			Acute local	Acute 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 bw/day

ETHYLENE GLYCOL BISTHIOGLYCOLATE
Predicted no-effect concentration - PNEC

Normal value in fresh water	500	ng/L
Normal value in marine water	VND	
Normal value for fresh water sediment	NPI	
Normal value for marine water sediment	NPI	
Normal value of STP microorganisms	VND	
Normal value for the terrestrial compartment	NPI	
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		Chronic local	Chronic systemic
	Acute local	Acute systemic			Acute local	Acute systemic		
Oral		NPI		50 µg/kg bw/day				
Inhalation	NPI	NPI	NPI	74 µg/m³	LOW	NPI	LOW	490 µg/m³
Skin	LOW	NPI	LOW	50 µg/kg bw/day	LOW	NPI	LOW	140 µg/kg bw/day

BIS(ISOPROPYL)NAPHTHALENE
Predicted no-effect concentration - PNEC

Normal value in fresh water	236	ng/L
Normal value in marine water	23,6	ng/L
Normal value for fresh water sediment	853	µg/kg dw
Normal value for marine water sediment	85,3	µg/kg dw
Normal value of STP microorganisms	150	µg/L
Normal value for the terrestrial compartment	171	µg/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		Chronic local	Chronic systemic
	Acute local	Acute systemic			Acute local	Acute systemic		
Oral		NPI		850 µg/kg bw/day				
Inhalation	NPI	NPI	NPI	1,48 mg/m³	NPI	NPI	NPI	8,4 mg/m³
Skin	NPI	NPI	NPI	850 µg/kg bw/day	NPI	NPI	NPI	2,38 µg/kg bw/day

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

PENTAERYTHRITOL TETRAKIS(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				18	µg/kg dw			
Normal value for marine water sediment				1,81	µg/kg dw			
Normal value of STP microorganisms				2,39	mg/l			
Normal value for the terrestrial compartment				3,37	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 local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		LOW		250 µg/kg bw/day				
Inhalation	HIGH	NPI	HIGH	870 µg/m³	HIGH	NPI	HIGH	4.93 mg/m³
Skin	HIGH	NPI	HIGH	2,5 mg/kg bw/day	HIGH	NPI	HIGH	7 mg/kg 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.

8.2. Exposure controls

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

HAND PROTECTION
Protect hands with category III work gloves.
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 II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

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

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.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	yellowish	
Odour	typical of solvent	
Melting point / freezing point	not available	

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

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	not available
Solubility	insoluble in water
Partition coefficient: n-octanol/water	not available
Vapour pressure	not available
Density and/or relative density	0,894 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)	4,19 %
VOC (Directive 2010/75/EU)	94,40 % - 843,94 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.

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.

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.

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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.

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.

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).

ACUTE TOXICITY

ATE (Inhalation) of the mixture:

Not classified (no significant component)

ATE (Oral) of the mixture:

>2000 mg/kg

ATE (Dermal) of the mixture:

Not classified (no significant component)

N-BUTYL ACETATE

LD50 (Dermal):

> 5000 mg/kg Rabbit

LD50 (Oral):

> 6400 mg/kg Rat

LC50 (Inhalation vapours):

21,1 mg/l/4h Rat

DIOCTYL TIN DILAURATE

LD50 (Dermal):

200 mg/kg bw (Rat) - Study cannot be used for classification

LD50 (Oral):

2000 mg/kg bw (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

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

ETHYLENE GLYCOL BISTHIOGLYCOLATE

LD50 (Dermal):

848 mg/kg bw 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):

200 mg/kg bw Rat

LC50 (Inhalation vapours):

563 mg/m³ air 563 - 1 981 mg/m³ air (Rat)

STA (Inhalation vapours):

11 mg/l estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

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SECTION 11. Toxicological information ... / >>

BIS(ISOPROPYL)NAPHTHALENE

LD50 (Dermal):	4500 mg/kg (Rat)
LD50 (Oral):	4130 mg/kg bw (Rat)
LC50 (Inhalation vapours):	5,64 mg/l/4h (Rat)

PENTAERYTHRITOL TETRAKIS(3-MERCAPTOPROPIONATE)

LD50 (Oral):	1000 mg/kg bw 1000-2000 mg/kg bw (Rat)
LC50 (Inhalation vapours):	3,363 mg/l air (Rat) - 4h

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

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

May damage fertility or the unborn child

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

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

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

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

ETHYLENE GLYCOL BISTHIOGLYCOLATE

LC50 - for Fish	508 µg/L
EC50 - for Crustacea	3,94 mg/l/48h
Chronic NOEC for Algae / Aquatic Plants	2,77 mg/l 72 h

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SECTION 12. Ecological information ... / >>

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

DIOCTYLTIN DILAURATE
LC50 - for Fish 90 µg/L
EC50 - for Crustacea 210 µg/L
EC50 - for Algae / Aquatic Plants 1,8 µg/L

BIS(ISOPROPYL)NAPHTHALENE
LC50 - for Fish 500 µg/L
EC50 - for Crustacea 160 µg/L

PENTAERYTHRITOL TETRAKIS(3-MERCAPTOPROPIONATE)
LC50 - for Fish 34 µg/L 34 - 420 µg/L
EC50 - for Crustacea 350 µg/L 350 - 850 µg/L
EC50 - for Algae / Aquatic Plants 120 µg/L 120 - 650 µg/L

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

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

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SECTION 14. Transport information ... / >>

14.2. UN proper shipping name

ADR / RID: PAINT RELATED MATERIAL
IMDG: PAINT RELATED MATERIAL
IATA: PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: 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 30-75

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)

DIOCTYL TIN DILAUATE

REACH Reg.: 01-2119979527-19-0000

Substances subject to authorisation (Annex XIV REACH)

None

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

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

SECTION 15. Regulatory information ... / >>

DIOCTYL TIN DILAUATE - (DIOCTYL TIN COMPOUNDS)

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

15.2. Chemical safety assessment

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

SECTION 16. Other information

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

Flam. Liq. 3	Flammable liquid, category 3
Repr. 1B	Reproductive toxicity, category 1B
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye 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
STOT SE 2	Specific target organ toxicity - single exposure, category 2
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
H226	Flammable liquid and vapour.
H360	May damage fertility or the unborn child.
H361f	Suspected of damaging fertility.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H371	May cause damage to organs.
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
- LC50: Lethal Concentration 50%

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

SECTION 16. Other information ... / >>

- 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
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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)
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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 in Section 12.

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

SECTION 16. Other information ... / >>

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