Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code: **411 00 19510-6115**

Product name **TRANSPARENT FOR HEADLIGHTS**

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

Intended use **Two-component transparent for polycarbonate surfaces**

1.3. Details of the supplier of the safety data sheet

Name **Meccanocar Italia S.r.l.**

Full address **Via San Francesco, 22**

District and Country **56033 Capannoli (PI)**
Italy

Tel. +39 0587 609433

Fax +39 0587 607145

e-mail address of the competent person

responsible for the Safety Data Sheet **moreno.meini@meccanocar.it**

1.4. Emergency telephone number

For urgent inquiries refer to **National Poisons Information Service: +44 121 507 4123**

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 2015/830.
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:

Aerosol, category 1	H222	Extremely flammable aerosol.
	H229	Pressurised container: may burst if heated.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1	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.

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:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH204	Contains isocyanates. May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.
P211	Do not spray on an open flame or other ignition source.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P501	Dispose of contents / container in accordance with local regulations.

Contains:

5-METHYLHEXAN-2-ONE
HDI OLIGOMERS, ISOCYANURATE

ACETONE

N-BUTYL ACETATE

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

2.3. Other hazards

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)

METHYL OXIDE DIMETHYLETER

CAS 115-10-6 | 45 ≤ x < 47,5 | Flam. Gas 1A H220, Press. Gas H280
EC 204-065-8
INDEX -
Reg. no. 01-2119472128-37-XXXX

ACETONE

CAS 67-64-1 | 15 ≤ x < 16,5 | Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 200-662-2
INDEX 606-001-00-8
Reg. no. 01-2119471330-49-XXXX

N-BUTYL ACETATE

CAS 123-86-4 | 8 ≤ x < 9 | Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1
INDEX 607-025-00-1
Reg. no. 01-2119485493-29-XXXX

ETHYLBENZENE AND XYLENE REACTION MASS

CAS - | 8 ≤ x < 9 | Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1
EC 905-588-0
INDEX -
Reg. no. 01-2119486136-34-XXXX

HDI OLIGOMERS, ISOCYANURATE

CAS - | 4 ≤ x < 4,5 | Acute Tox. 4 H332, STOT SE 3 H335, Skin Sens. 1 H317
EC 931-274-8
INDEX -
Reg. no. 01-2119485796-17-XXXX

1,2,4-TRIMETHYLBENZENE

CAS 95-63-6 | 2 ≤ x < 2,5 | Flam. Liq. 3 H226, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 2 H411
EC 202-436-9
INDEX 601-043-00-3
Reg. no. 01-2119472135-42-XXXX

4-METHYLPENTAN-2-ONE

CAS 108-10-1 | 2 ≤ x < 2,5 | Flam. Liq. 2 H225, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE 3 H335, EUH066
EC 203-550-1
INDEX 606-004-00-4
Reg. no. 01-2119473980-30-XXXX

BUTYLGLYCOL ACETATE

CAS 112-07-2 | 2 ≤ x < 2,5 | Acute Tox. 4 H312, Acute Tox. 4 H332
EC 203-933-3
INDEX 607-038-00-2
Reg. no. 01-2119475112-47-XXXX

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

CAS 64742-95-6 | 2 ≤ x < 2,5 | Carc. 1B H350, Muta. 1B H340, Asp. Tox. 1 H304, Classification note according to Annex VI to the CLP Regulation: P

EC 265-199-0		
INDEX 649-356-00-4		
Reg. no. 01-2119486773-24-XXXX		
5-METHYLHEXAN-2-ONE		
CAS 110-12-3	2 ≤ x < 2,5	Flam. Liq. 3 H226, Repr. 2 H361, Acute Tox. 4 H332
EC 203-737-8		
INDEX -		
Reg. no. 01-2119472300-51-XXXX		
BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO		
CAS 52829-07-9	0,45 ≤ x < 0,5	Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 258-207-9		
INDEX -		
Reg. no. 01-2119491304-40-XXXX		

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

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 45,00 %

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

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.
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

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. 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

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition,published 2018)
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
NOR	Norge	Fastsatt av Arbeids- og sosialdepartementet 21. august 2018 med hjemmel i lov 17. juni 2005 nr. 62 om arbeidsmiljø, arbeidstid, stillingsvern mv. (arbeidsmiljøloven) § 1-3, § 1-4 og § 4-5
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
EU	OEL EU	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 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

METHYL OXIDE DIMETHYLETER

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	983	400			INHAL

Predicted no-effect concentration - PNEC		
Normal value in fresh water	1,55	mg/l
Normal value in marine water	0,16	mg/l
Normal value for fresh water sediment	6,581	mg/kg
Normal value for marine water sediment	0,69	mg/kg
Normal value for water, intermittent release	1,549	mg/l
Normal value for the terrestrial compartment	0,45	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				471 mg/m3		NPI		1894 mg/m3

ACETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	FRA	1210	500	2420	1000	
WEL	GBR	1210	500	3620	1500	
VLEP	ITA	1210	500			
TLV	NOR	295	125			
VLE	PRT	1210	500			
OEL	EU	1210	500			
TLV-ACGIH			250		500	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	10,6	mg/l
Normal value in marine water	1,06	mg/l
Normal value for fresh water sediment	30,4	mg/kg

Normal value for marine water sediment	3,04	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	29,5	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				62 mg/kg bw/d				
Inhalation				200 mg/m3			2420 mg/m3	1210 mg/m3
Skin				62 mg/kg bw/d				186 mg/kg bw/d

ETHYLBENZENE AND XYLENE REACTION MASS

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	mg/kg
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				12,5 mg/kg bw/d				
Inhalation	260 mg/m3	260 mg/m3	65,6 mg/m3	65,6 mg/m3	442 mg/m3	442 mg/m3	221 mg/m3	221 mg/m3
Skin				125 mg/kg bw/d				212 mg/kg bw/d

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	724	150	965	200	
VLEP	FRA	710	150	940	200	
WEL	GBR	724	150	966	200	
TLV	NOR		75			
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	0,098	mg/kg
Normal value of STP microorganisms	35,6	mg/l
Normal value for the terrestrial compartment	0,09	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	Acute local	Acute	Chronic local	Chronic

				systemic		systemic		systemic
Oral		2 mg/kg bw/d		2 mg/kg bw/d				
Inhalation	300 mg/m3	300 mg/m3	35,7 mg/m3	35,7 mg/m3	600 mg/m3	600 mg/m3	300 mg/m3	300 mg/m3
Skin		6 mg/kg bw/d		6 mg/kg bw/d		11 mg/kg bw/d		11 mg/kg bw/d

HDI OLIGOMERS, ISOCYANURATE

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,127	mg/l
Normal value in marine water	0,013	mg/l
Normal value for fresh water sediment	226701	mg/kg
Normal value for marine water sediment	26670	mg/kg
Normal value of STP microorganisms	88	mg/l
Normal value for the terrestrial compartment	53183	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					1 mg/m3		0,5 mg/m3	

5-METHYLHEXAN-2-ONE

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,1	mg/l
Normal value in marine water	0,01	mg/l
Normal value for fresh water sediment	0,59	mg/kg
Normal value for marine water sediment	0,059	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,059	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				5,12 mg/kg bw/d				
Inhalation		146,5 mg/m3		17,812 mg/m3		196,3 mg/m3		100,25 mg/m3
Skin				5,12 mg/kg bw/d				14,2 mg/kg bw/d

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

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	640 mg/m3	1152 mg/m3	178,57 mg/m3		1066,67 mg/m3	1286,4 mg/m3	837,5 mg/m3	

BUTYLGLYCOL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	133	20	333	50	SKIN

VLEP	FRA	66,5	10	333	50	SKIN
WEL	GBR	133	20	332	50	SKIN
VLEP	ITA	133	20	333	50	SKIN
TLV	NOR	65	10			SKIN
VLE	PRT	133	20	333	50	SKIN
OEL	EU	133	20	333	50	SKIN
TLV-ACGIH		131	20			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,304	mg/l
Normal value in marine water	0,03	mg/l
Normal value for fresh water sediment	2,03	mg/kg
Normal value for marine water sediment	0,203	mg/kg
Normal value of STP microorganisms	90	mg/l
Normal value for the food chain (secondary poisoning)	60	mg/kg
Normal value for the terrestrial compartment	0,415	mg/kg

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		36 mg/kg bw/d		8,6 mg/kg bw/d				
Inhalation	200 mg/m3			80 mg/m3	333 mg/m3			133 mg/m3
Skin						120 mg/kg bw/d		169 mg/kg bw/d

4-METHYLPENTAN-2-ONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	83	20	208	50	
VLEP	FRA	83	20	208	50	
WEL	GBR	208	50	416	100	SKIN
VLEP	ITA	83	20	208	50	
TLV	NOR	83	20	208	50	SKIN
VLE	PRT	83	20	208	50	
OEL	EU	83	20	208	50	
TLV-ACGIH		82	20	307	75	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,6	mg/l
Normal value in marine water	0,06	mg/l
Normal value for fresh water sediment	8,27	mg/kg
Normal value for marine water sediment	0,83	mg/kg
Normal value of STP microorganisms	27,5	mg/l
Normal value for the terrestrial compartment	1,3	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				4,2 mg/kg bw/d				
Inhalation	155,2 mg/m3	155,2 mg/m3	14,7 mg/m3	14,7 mg/m3	208 mg/m3	208 mg/m3	83 mg/m3	83 mg/m3
Skin				4,2 mg/kg bw/d				11,8 mg/kg bw/d

1,2,4-TRIMETHYLBENZENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	100	20			
VLEP	FRA	100	20	250	50	
VLEP	ITA	100	20			
TLV	NOR	100	20			
VLE	PRT	100	20			
OEL	EU	100	20			
TLV-ACGIH		123	25			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,12	mg/l
Normal value in marine water	0,12	mg/l
Normal value for fresh water sediment	13,56	mg/kg
Normal value for marine water sediment	13,56	mg/kg
Normal value of STP microorganisms	2,41	mg/l
Normal value for the terrestrial compartment	2,34	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				15 mg/kg bw/d				
Inhalation	29,4 mg/m3	29,4 mg/m3	29,4 mg/m3	29,4 mg/m3	100 mg/m3	100 mg/m3	100 mg/m3	100 mg/m3
Skin				9512 mg/kg bw/d				16171 mg/kg bw/d

Legend:

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

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

8.2. Exposure controls

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

Provide an emergency shower with face and eye wash station.

The product must be used inside a closed circuit, in a well-ventilated environment and with strong localised aspiration systems in place.

HAND PROTECTION
None required.

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.

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

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.

ACETONE

Protective gloves according to EN 374.
Glove material: Butyl rubber (butyl rubber) - Layer thickness> = 0.5 mm.
Breakthrough time:> 480 min.
Observe the glove manufacturer's instructions regarding penetrability and breakthrough time.

N-BUTYL ACETATE

Wear protective gloves. The recommendations are listed below. Other protective material can be used, depending on the situation, if adequate data on degradation and permeation are available. If other chemicals are used together with this chemical, the selection of materials should be based on the protection of all chemicals present.

5-METHYLHEXAN-2-ONE

Respiratory protection: if the technical controls do not keep the concentrations in the air below the recommended exposure limits (where applicable) or at an acceptable level (in countries where no exposure limits have been established), an approved respirator must be worn . In the United States of America, if respirators are used, a program must be established to ensure compliance with OSHA 63 FR 1152, January 8, 1998. Type of respirator: government-approved, air-purified respirator (where applicable), air purifying filter, cartridge or canister. Contact your health and safety professional or manufacturer for specific information.
Eye protection: wear safety glasses with side shields (or glasses). Wear a full face respirator if necessary.
Skin protection: For operations where prolonged or repeated contact with the skin may occur, wear chemical resistant gloves. In particular, the gloves must be made with HPPE laminated film coating material (0.062 mm thick; breakthrough time:> 480 min). Contact your health and safety professional or the manufacturer for more specific information.

BUTYLGLYCOL ACETATE

Respiratory protection: Use a positive pressure respiratory mask if concentrations in the air could exceed occupational exposure standards
Eye protection: protective glasses with side shields
Hand protection: gloves in butyl rubber, Neoprene ™ rubber or nitrile rubber.
Body protection: neoprene ™ apron. Rubber boots.

4-METHYLPENTAN-2-ONE

For prolonged contact, the following protective glove materials are recommended:
- For more than 8 hours resistance to MIBK:
PE / EVAL / PE (multilayer)
PE / PA / PE (multilayer)
(PE = polyethylene; EVAL = ethylene-vinyl-alcohol-copolymer; PA: polyamide)
- For more than 4 hours resistance to MIBK:
Butyl rubber
For intermittent contact, the resistance to MIBK is less than 1 hour with the following materials for protective gloves (with a thickness greater than 0.3 mm):
Polyvinyl chloride - PVC
Nitrile rubber
Neoprene rubber
So they are not recommended for activities longer than 1 hour.
The times listed are suggested by measurements taken at room temperature. Temperatures increased by heated substances, body heat, etc. And a weakening of the effective layer thickness caused by expansion can lead to significantly shorter breakthrough times. If in doubt, contact the glove manufacturer. A 1.5-fold increase / decrease in layer thickness doubles / halves breakthrough time. These data apply only to the pure substance. Transferred to mixtures of substances, these figures should only be taken as an aid to orientation.

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Individual protection
Eye / face protection: Safety glasses with side protection in accordance with EN166, use eye protection devices tested and approved according to the requirements of appropriate technical standards such as MIOSH (USA) or EN 166 (EU).
Skin protection: Handle with gloves. Gloves must be checked before they are used. Use a suitable technique for removing gloves (without touching the outer surface of the glove) to avoid skin contact with this product, dispose of contaminated gloves after use in accordance with current legislation and good laboratory practices. Wash and dry your hands.
Physical protection: Waterproof clothing, the type of protective equipment must be selected according to the concentration and quantity of dangerous substance at the workplace.
Respiratory protection: For low exposure levels use type P95 (US) or type P1 (EU EN 143) dust respirators. Use respirators and components tested and approved by the relevant standardization bodies, such as NIOSH (USA) or CEN (EU).

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol
Colour	transparent
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	2,6 % (V/V)
Upper inflammability limit	26,2 % (V/V)
Lower explosive limit	Not available
Upper explosive limit	Not available

Vapour pressure	4000 hPa
Vapour density	Not available
Relative density	0,8 g/cm3
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	240 °C
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Total solids (250°C / 482°F)	9,90 %
VOC (Directive 2010/75/EC) :	83,00 % - 644,20 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.

ACETONE

Decomposes under the effect of heat.

Acetone reacts in the presence of bases. The vapor forms potentially explosive mixtures with the air. Heavier than air, they proceed at floor level and can flash at a great distance when turned on. It can electrostatically charge.

N-BUTYL ACETATE

Decomposes on contact with: water.

4-METHYLPENTAN-2-ONE

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

10.2. Chemical stability

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

BUTYLGLYCOL ACETATE

Stable under normal conditions. May form peroxides upon prolonged exposure to air and light.

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

METHYL OXIDE DIMETHYLETER

Vapors can form an explosive mixture with air.

ACETONE

Risk of explosion on contact with: bromine trifluoride,fluorine dioxide,hydrogen peroxide,nitrosyl chloride,2-methyl-1,3 butadiene,nitromethane,nitrosyl perchlorate.May react dangerously with: potassium tert-butoxide,alkaline hydroxides,bromine,bromoform,isoprene,sodium,sulphur dioxide,chromium trioxide,chromyl chloride,nitric acid,chloroform,peroxymonosulphuric acid,phosphoryl oxychloride,chromosulphuric acid,fluorine,strong oxidising agents,strong reducing agents.Develops flammable gas on contact with: nitrosyl perchlorate.

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.

Vapors can form an explosive mixture with air.

4-METHYLPENTAN-2-ONE

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

10.4. Conditions to avoid

Avoid overheating.

METHYL OXIDE DIMETHYLETER

Temperature:> 52 ° C

ACETONE

Avoid exposure to: sources of heat,naked flames.

Highly flammable. Concentrated vapors are heavier than air. Forms explosive mixtures with air, even in empty and uncleaned containers. It can produce, if mixed with chlorinated hydrocarbons and exposed to light, highly irritating chlorine acetone.

N-BUTYL ACETATE

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

Avoid contact with heat, sparks, open flames and static discharge. Avoid any source of ignition.

BUTYLGLYCOL ACETATE

High temperatures and sources of ignition. Prolonged exposure to air / oxygen and light.

4-METHYLPENTAN-2-ONE

Avoid exposure to: sources of heat.

Keep away from heat and other causes of fire.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

METHYL OXIDE DIMETHYLETER

Oxygen, oxidizing agents, acid anhydrides, strong acids, carbon monoxide, acetic anhydride, powdered metals.

ACETONE

Incompatible with: acids,oxidising substances.

Attacks many plastics and rubbers. Condensation may form on contact with barium hydroxide, sodium hydroxide and many other alkaline materials. Avoid contact with strong oxidizing agents, alkalis and amines.

N-BUTYL ACETATE

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

Strong acids and strong bases, strong oxidizing agents.

5-METHYLHEXAN-2-ONE

The material reacts violently with strong oxidizing agents

BUTYLGLYCOL ACETATE

Oxidizing agents.

4-METHYLPENTAN-2-ONE

Incompatible with: oxidising substances,reducing substances.

Strong oxidizing agents, ozone, hydrogen peroxide, (formation of unstable peroxides)

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Strong oxidizing agents, Strong acids, Strong bases.

10.6. Hazardous decomposition products

METHYL OXIDE DIMETHYLETER

Formaldehyde, carbon dioxide (CO2), carbon monoxide, methanol.

ACETONE

May develop: ketenes,irritant substances.

In case of fire the following can be released: carbon monoxide and carbon dioxide.

BUTYLGLYCOL ACETATE

Carbon oxides in combustion.

4-METHYLPENTAN-2-ONE

Organic vapors

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Hazardous decomposition products in case of fire. - Carbon oxides, Nitrogen oxides (NOx).

SECTION 11. Toxicological information

11.1. Information on toxicological effects

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

LC50 (Inhalation) of the mixture:
> 20 mg/l
LD50 (Oral) of the mixture:
Not classified (no significant component)
LD50 (Dermal) of the mixture:
>2000 mg/kg

4-METHYLPENTAN-2-ONE

LD50 (Oral) 2080 mg/kg Rat

LD50 (Dermal) > 16000 mg/kg Rabbit

LC50 (Inhalation) > 8,2 mg/l/4h Rat

METHYL OXIDE DIMETHYLETER

LC50 (Inhalation) 164000 ppm/4h rat

METHYL OXIDE DIMETHYLETER

Method: Not indicated
Reliability: 2
Species: Rat (albino ChR-CD; male)
Route of exposure: Inhalation (gas)
Results: LC50: 164 000 ppm

ACETONE

Method: Not indicated
Reliability: 2
Species: Rat (Sprague-Dawley)
Route of exposure: Oral
Results: LD50 = 5800 mg / kg bw
Bibliographic reference: Acetone potentiation of acute acetonitrile toxicity, Freeman JJ, Hayes EP (1985)

ETHYLBENZENE AND XYLENE REACTION MASS

Method: Equivalent or similar to EU Method B.2
Reliability: 1
Species: Rat (male)

Route of exposure: Inhalation (vapors)
Results: LC50 6 700 ppm

N-BUTYL ACETATE

Method: Equivalent or similar to OECD 423
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: LD50 = 12.2 mL / kg bw
Method: Equivalent or similar to OECD 402
Reliability: 2
Species: Rabbit (New Zealand White; male / female)
Route of exposure: Dermal
Results: LD50> 16 mL / kg bw

HDI OLIGOMERS, ISOCYANURATE

Method: OECD 423
Reliability: 1
Species: Rat (Sprague-Dawley; female)
Route of exposure: Oral
Results: LD50> 2500 mg / kg bw
Method: OECD 403
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Inhalation (aerosol)
Results: LC50 = 390 mg / m3 air
Method: OECD 402
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Dermal
Results: LD50> 2000 mg / kg bw

5-METHYLHEXAN-2-ONE

Method: Not indicated
Reliability: 2
Species: Rat (Male)
Route of exposure: Oral
Results: LD50 = 5657 mg / kg bw
Method: Not indicated
Reliability: 2
Species: Rat (Male)
Route of exposure: Inhalation
Results: LC50> 3 207 - <5 875 ppm
Method: Not indicated
Reliability: 2
Species: guinea pig (Hartley)
Route of exposure: Dermal
Results: Not classified

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: Equivalent or similar to OECD 401
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: LD50> 5 000 mg / kg bw
Method: Equivalent or similar to OECD 403
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)

Results: LC50> 7 630 mg / m³ air
Method: Equivalent or similar to OECD 402
Reliability: 2
Species: Rabbit (New Zealand White; male / female)
Route of exposure: Dermal
Results: LD50> 2 000 mg / kg bw

BUTYLGLYCOL ACETATE

Method: Equivalent or similar to OECD 401
Reliability: 2
Species: Rat (Male / female)
Route of exposure: Oral
Results: LD50 = 1880 mg / kg bw
Method: Equivalent or similar to OECD 403
Reliability: 2
Species: Rat (Wistar, male / female)
Route of exposure: Inhalation (vapors)
Results: Not classified
Method: Not indicated
Reliability: 2
Species: Rabbit (New Zealand)
Route of exposure: Dermal
Results: LD50 = 1500 mg / kg bw
Bibliographic reference:
Comparative toxicological study of ethyl glycol acetate and butyl glycol acetate, Truhaut R, Dutertre-Catella H, Phu-Lich N, Ngoc Huyen V (1979)

1,2,4-TRIMETHYLBENZENE

Method: Equivalent or similar to EU Method B.1
Reliability: 1
Species: Rat (male)
Route of exposure: Oral
Results: LD50: 6 000 mg / kg bw
Method: Not indicated
Reliability: 2
Species: Rat (CD (COBS); male / female)
Route of exposure: Inhalation
Results: LC50: 10 200 mg / m³ air
Bibliographic reference:
Method: Not indicated
Reliability: 2
Species: Rat (CD (COBS); male / female)
Route of exposure: Dermal
Results: LD50: 4 other: mL / kg bw (3440 mg / kg)

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Method: OECD 42
Species: Rat (Male / female)
Route of exposure: Oral
Results: LD50 = 3700 mg / kg bw
Method: Not indicated
Species: Rat
Route of exposure: Inhalation
Results: CL50 = 0.960 mg / l
Method: OECD 402
Species: Rat (Male / female)
Route of exposure: Dermal
Results: LD50 = 3170 mg / kg bw

SKIN CORROSION / IRRITATION

Causes skin irritation

N-BUTYL ACETATE

Method: Equivalent or similar to OECD 404
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Not irritating

HDI OLIGOMERS, ISOCYANURATE

Method: OECD 404
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Slightly irritating

5-METHYLHEXAN-2-ONE

Method: Not indicated
Reliability: 2
Species: guinea pig (Hartley)
Route of exposure: Dermal
Results: Slightly irritating

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: OECD 404
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Irritating

4-METHYLPENTAN-2-ONE

Method: OECD Guideline 404
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Not irritating

1,2,4-TRIMETHYLBENZENE

Method: Equivalent or similar to EU Method B.4
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Irritating
Bibliographic reference: Jacobs G and Martens M, Evaluation of the test method for skin irritation as prescribed by OECD and EEC (1987)

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Method: Not indicated
Species: Rabbit
Route of exposure: Dermal
Results: Not irritating

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

N-BUTYL ACETATE

Method: OECD 405
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

HDI OLIGOMERS, ISOCYANURATE

Method: OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Irritating

5-METHYLHEXAN-2-ONE

Method: Not indicated
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Slightly irritating

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: Equivalent or similar to OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

4-METHYLPENTAN-2-ONE

Method: OECD Guideline 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Slightly irritating

1,2,4-TRIMETHYLBENZENE

Method: Equivalent or similar to OECD 405
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Method: OECD 405
Species: Rabbit
Route of exposure: Ocular
Results: Irreversible effects on the eyes

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

ACETONE

Method: Not indicated
Reliability: 2
Species: guinea pig (Hartley; female)
Route of exposure: Dermal
Results: Not sensitizing
Bibliographic reference: A new protocol and criteria for quantitative determination of sensitization potencies of chemicals by guinea pig maximization test, Nakamura A, Momma J, Sekiguchi H, Noda T, Yamano T, Kaniwa MA, Kojima S, Tsuda M, Kurokawa Y (1994)

1,2,4-TRIMETHYLBENZENE

Method: Equivalent or similar to OECD 406
Reliability: 2
Species: guinea pig (P 'strain; male / female)
Route of exposure: Dermal
Results: Not sensitizing

Respiratory sensitization
HDI OLIGOMERS, ISOCYANURATE

Method: Not indicated
Reliability: 2
Species: guinea pig (Dunkin-Hartley; female)
Route of exposure: Inhalation
Results: Not sensitizing

Skin sensitization
HDI OLIGOMERS, ISOCYANURATE

Method: OECD 406
Reliability: 1
Species: guinea pig (Dunkin-Hartley; female)
Route of exposure: Dermal
Results: Not sensitizing

5-METHYLHEXAN-2-ONE

Method: Not indicated
Reliability: 2
Species: guinea pig (Hartley)
Route of exposure: Dermal
Results: Not sensitizing

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: Equivalent or similar to OECD 406
Reliability: 1
Species: guinea pig (Hartley; male)
Route of exposure: Dermal
Results: Not sensitizing

BUTYLGLYCOL ACETATE

Method: EU Method B.6
Reliability: 1
Species: guinea pig (Dunkin Hartley, male)
Route of exposure: Dermal
Results: Not sensitizing

4-METHYLPENTAN-2-ONE

Method: OECD Guideline 406
Reliability: 1
Species: guinea pig (albino; female)
Route of exposure: Dermal
Results: Not sensitizing

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Method: OECD 406
Species: guinea pig
Route of exposure: Dermal
Results: Not sensitizing

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

METHYL OXIDE DIMETHYLETER

Method: OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative
Method: Equivalent or similar to OECD 477 in vivo test
Reliability: 2
Species: Drosophila melanogaster (male)
Route of exposure: Inhalation (gas)
Results: Negative

ETHYLBENZENE AND XYLENE REACTION MASS

Method: Equivalent or similar OECD Guideline 478-test in vivo
Reliability: 2
Species: Mouse (Swiss Webster; male / female)
Route of exposure: Subcutaneous
Results: Negative

N-BUTYL ACETATE

Method: Equivalent or similar to OECD 471 in vitro test
Reliability: 2
Species: S. typhimurium, E. Coli
Results: Negative with and without metabolic activation

Method: OECD 474-test in vivo
Reliability: 2
Species: Mouse (NMRI; male / female)
Route of exposure: Oral
Results: Negative

HDI OLIGOMERS, ISOCYANURATE

Method: OECD 471-In vitro test
Reliability: 1
Species: S. typhimurium; E. Coli
Results: Negative with and without metabolic activation

Method: Equivalent or similar to OECD 474-Test in vivo
Reliability: 2
Species: Mouse (CD-1; male / female)
Route of exposure: Oral
Results: Negative

5-METHYLHEXAN-2-ONE

Method: Equivalent or similar to OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium, E. Coli
Results: Negative with and without metabolic activation

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: Not indicated - in vitro test
Reliability: 1
Species: Chinese hamster
Results: Negative with or without metabolic activation
Method: EPA OPPTS 870.5395 - in vivo test
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation
Results: Negative

BUTYLGLYCOL ACETATE

Method: Equivalent or similar to OECD 471-Read across-Test in vitro
Reliability: 1
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD 474-Read across-Test in vivo
Reliability: 1
Species: Mouse (B6C3F1; male)
Route of exposure: Intraperitoneal
Results: Negative

4-METHYLPENTAN-2-ONE

Method: Equivalent or similar to OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative
Method: Equivalent or similar to OECD 474 in vivo test
Reliability: 1
Species: Mouse (CD-1; male / female)
Route of exposure: Intraperitoneal
Results: Negative

1,2,4-TRIMETHYLBENZENE

Method: Equivalent or similar to OECD 471 in vitro test
Reliability: 2
Species: TA97a, TA98, TA100, TA102
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD 474 in vivo test
Reliability: 2
Species: Mouse (Balb / c; male / female)
Route of exposure: Oral
Results: Negative

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Method: Ames test
Species: S. typhimurium
Results: Negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

METHYL OXIDE DIMETHYLETER

Method: Equivalent or similar to OECD 453
Reliability: 1
Species: Rat (CD (R) (SD) BR; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative

ACETONE

Method: Not indicated
Reliability: 2
Species: Mouse (ICR; female)
Route of exposure: Dermal
Results: Negative
Bibliographic reference: Mouse skin carcinogenicity tests of the flame retardants tris (2,3-dibromopropyl) phosphate, tetrakis (hydroxymethyl) phosphonium chloride, and polyvinyl bromide, Van Duuren BL, Loewengart G, Seldman I, Smith AC, Melchionne S (1974)

ETHYLBENZENE AND XYLENE REACTION MASS

Method: Equivalent or similar to EU Method B.32
Reliability: 2
Species: Rat (F344 / N; male / female)
Route of exposure: Oral
Results: Negative

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: Equivalent or similar to OECD 451
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative

BUTYLGLYCOL ACETATE

Method: Equivalent or similar to OECD 451
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative

4-METHYLPENTAN-2-ONE

Method: OECD Guideline 451
Reliability: 2
Species: Rat (F344 / N; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC 450 ppm

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

METHYL OXIDE DIMETHYLETER

Method: Equivalent or similar to OECD 452
Reliability: 1
Species: Rat (CD (SD) BR; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative

1,2,4-TRIMETHYLBENZENE

Method: Equivalent or similar to OECD 416
Reliability: 1
Species: Rat (Charles River COBS CD; male / female)
Route of exposure: Inhalation (vapor)
Results: NOAEC = 500 ppm

Adverse effects on sexual function and fertility
N-BUTYL ACETATE

Method: OECD 416
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC (fertility) = 750 ppm

5-METHYLHEXAN-2-ONE

Method: OECD 443
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC (fertility) = 1500 ppm

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: Equivalent or similar to OECD 416
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC (fertility)> = 20 000 mg / m³ air

BUTYLGLYCOL ACETATE

Method: National Toxicology Program Continuous Breeding Protocol-Read across
Reliability: 1
Species: Mouse (CD-1; male / female)
Route of exposure: Oral
Results: NOAEL (fertility) = 720 mg / kg bw / day

4-METHYLPENTAN-2-ONE

Method: Equivalent or similar to OECD 416
Reliability: 1
Species: Rat (CD (SD); male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEL 1000 ppm

Adverse effects on development of the offspring
ACETONE

Method: Equivalent or similar to OECD 414
Reliability: 1
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC (development) = 2200 ppm

ETHYLBENZENE AND XYLENE REACTION MASS

Method: Equivalent or similar OECD Guideline 414
Reliability: 2
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation (vapors)
Results: NOAEC 500 ppm

N-BUTYL ACETATE

Method: Equivalent or similar to OECD 414
Reliability: 1
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation (vapors)
Results: Positive, NOAEC (development) = 1500 ppm

HDI OLIGOMERS, ISOCYANURATE

Method: OECD 414-Read across
Reliability: 2
Species: Rat (Wistar)
Route of exposure: Inhalation
Results: Positive, NOAEC (development) = 0.929 mg / m3 air

5-METHYLHEXAN-2-ONE

Method: OECD 414
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Inhalation (vapors)
Results: NOAEL (development) = 1250 ppm

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: Equivalent or similar to OECD 414
Reliability: 2
Species: Rat (Sprague-Dawley)
Route of exposure: Dermal
Results: NOAEL (development) 500 mg / kg bw / day

BUTYLGLYCOL ACETATE

Method: Equivalent or similar to OECD 414-Read across
Reliability: 1
Species: Rat (Fischer 344)
Route of exposure: Oral
Results: NOAEL (development) = 30 mg / kg bw / day

4-METHYLPENTAN-2-ONE

Method: Equivalent or similar to OECD 414
Reliability: 1
Species: Rat (Fischer 344)
Route of exposure: Inhalation (vapors)
Results: NOAEL 1 000 ppm

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

METHYL OXIDE DIMETHYLETER

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

ACETONE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

ETHYLBENZENE AND XYLENE REACTION MASS

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

N-BUTYL ACETATE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

HDI OLIGOMERS, ISOCYANURATE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

5-METHYLHEXAN-2-ONE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

BUTYLGLYCOL ACETATE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

4-METHYLPENTAN-2-ONE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

1,2,4-TRIMETHYLBENZENE

Based on the available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

Target organ
ACETONE

Narcotic effects

N-BUTYL ACETATE

Central nervous system.

HDI OLIGOMERS, ISOCYANURATE

Respiratory tract

4-METHYLPENTAN-2-ONE

Respiratory tract.

1,2,4-TRIMETHYLBENZENE

Respiratory tract

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Mucosal irritation

Route of exposure
ACETONE

Inhalation

1,2,4-TRIMETHYLBENZENE

Inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

METHYL OXIDE DIMETHYLETER

Method: Equivalent or similar to OECD 452
Reliability: 1
Species: Rat (Crl: CD (R) (SD) BR; male / female)
Route of exposure: Inhalation (vapors)
Results: Positive, NOAEL = 2.5%

ACETONE

Method: Equivalent or similar to OECD 408
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Oral
Results: Negative, NOAEL = 10000 ppm
Method: Not indicated
Reliability: 2

Species: Rat (Sprague-Dawley; male)
Route of exposure: Inhalation
Results: Negative, NOAEC = 19000 ppm
Bibliographic reference: Evaluation of toluene and acetone inhalant abuse. II. Model development and toxicology, Bruckner JV, Peterson RG (1981)
Method: Not indicated
Reliability: 2
Species: Not indicated
Route of exposure: Dermal
Results: Negative
Bibliographic reference: Pathology of aging female SENCAR mice used as controls in skin two-stage carcinogenesis studies, Ward J, Quander RD, Wenk M, Spangler E (1986)

ETHYLBENZENE AND XYLENE REACTION MASS

Method: Equivalent or similar to EU Method B.32
Reliability: 2
Species: Rat (F344 / N; male / female)
Route of exposure: Oral
Results: NOAEL 250 mg / kg bw / day

N-BUTYL ACETATE

Method: EPA OTS 798.2650
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL = 125 mg / kg bw / day
Method: EPA OTS 798.2450
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC = 500 ppm

HDI OLIGOMERS, ISOCYANURATE

Method: OECD 413
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Inhalation (aerosol)
Results: NOAEL = 3.3 mg / m3 air

5-METHYLHEXAN-2-ONE

Method: Not indicated
Reliability: 2
Species: Rat (CD Cobs; Male)
Route of exposure: Oral
Results: NOAEL <2000 mg / kg bw / day
Method: Equivalent or similar to OECD 413
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)
Results: NOEC = 200 ppm

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM

Method: Not indicated
Reliability: 2
Species: Rat (Fischer 344; male)
Route of exposure: Oral
Results: Halder CA, et al. (1985), Hydrocarbon nephropathy in male rats: identification of the nephrotoxic components of unleaded gasoline.
Method: Equivalent or similar to OECD 453

Reliability: 1
Species: Rat and mouse (Fischer 344 and B6C3F; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC 1 402 mg / m^3 air
Method: Equivalent or similar to OECD 453
Reliability: 2
Species: Mouse (Swiss Webster; male / female)
Route of exposure: Dermal
Results: NOAEL 0.5 ml

BUTYLGLYCOL ACETATE

Method: Equivalent or similar to OECD 408-Read across
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Oral
Results: NOAEL <69 mg / kg bw / day
Method: Equivalent or similar to OECD 413-Read across
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC <31 ppm
Method: Equivalent or similar to OECD 411
Reliability: 1
Species: Rabbit (New Zealand White; male / female)
Route of exposure: Dermal
Results: NOAEL> 150 mg / kg bw / day

4-METHYLPENTAN-2-ONE

Method: Equivalent or similar to OECD 408
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL 250 mg / kg bw / d
Method: Equivalent or similar to OECD 451
Reliability: 2
Species: Rat (F344 / N; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC 450 ppm

1,2,4-TRIMETHYLBENZENE

Method: OECD 408-Read across
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL = 600 mg / kg bw / day
Method: Equivalent or similar to OECD 452
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC = 1800 mg / m3 air

BIS (1,2,2,6,6-PENTAMETIL-4-PIPERIDIL) SEBACATO

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

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

N-BUTYL ACETATE	
LC50 - for Fish	18 mg/l/96h
EC50 - for Crustacea	44 mg/l/48h
EC50 - for Algae / Aquatic Plants	397 mg/l/72h
EC10 for Algae / Aquatic Plants	196 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	196 mg/l

BUTYLGLYCOL ACETATE	
LC50 - for Fish	28 mg/l/96h
EC50 - for Crustacea	37 mg/l/48h
EC50 - for Algae / Aquatic Plants	1570 mg/l/72h
EC10 for Algae / Aquatic Plants	300 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	300 mg/l

METHYL OXIDE DIMETHYLETER	
LC50 - for Fish	4100 mg/l/96h
EC50 - for Crustacea	4400 mg/l/48h
EC50 - for Algae / Aquatic Plants	154,917 mg/l/72h
Chronic NOEC for Fish	4100 mg/l
Chronic NOEC for Crustacea	4400 mg/l

ETHYLBENZENE AND XYLENE REACTION MASS	
LC50 - for Fish	2,6 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h
EC50 - for Algae / Aquatic Plants	1,3 mg/l/72h
EC10 for Algae / Aquatic Plants	0,44 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	0,44 mg/l

HDI OLIGOMERS, ISOCYANURATE	
LC50 - for Fish	100 mg/l/96h
EC50 - for Crustacea	127 mg/l/48h
EC50 - for Algae / Aquatic Plants	1000 mg/l/72h
EC10 for Algae / Aquatic Plants	370 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	370 mg/l

5-METHYLHEXAN-2-ONE	
LC50 - for Fish	159 mg/l/96h
EC50 - for Crustacea	> 100 mg/l/48h

EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h
EC10 for Algae / Aquatic Plants	19 mg/l/72h
Chronic NOEC for Crustacea	> 91 mg/l
Chronic NOEC for Algae / Aquatic Plants	24 mg/l

12.2. Persistence and degradability

ACETONE
Easily degradable in water, 90.9% in 28 days.
N-BUTYL ACETATE
Easily degradable in water, 83% in 28 days.
HDI OLIGOMERS, ISOCYANURATE
Little degradable in water, 48% in 28 days.
5-METHYLHEXAN-2-ONE
Easily degradable in water, 67% in 28 days.
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM
Fully biodegradable, 96% in 28 days.
BUTYLGLYCOL ACETATE
Easily degradable in water, 88% in 28 days.
4-METHYLPENTAN-2-ONE
Quickly biodegradable, 64% in 14 days.
BIS (1,2,2,6,6-PENTAMETHY-4-PIPERIDYL) SEBACATED
Not immediately degradable, 24% in 28 days.

1,2,4-TRIMETHYLBENZENE	
Solubility in water	0,1 - 100 mg/l
Rapidly degradable	
ACETONE	
Rapidly degradable	
4-METHYLPENTAN-2-ONE	
Solubility in water	> 10000 mg/l
Rapidly degradable	
N-BUTYL ACETATE	
Solubility in water	1000 - 10000 mg/l
BUTYLGLYCOL ACETATE	
Rapidly degradable	
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM	
Rapidly degradable	
METHYL OXIDE DIMETHYLETER	
Solubility in water	45600 mg/l

12.3. Bioaccumulative potential

1,2,4-TRIMETHYLBENZENE	
Partition coefficient: n-octanol/water	3,65
BCF	243

ACETONE	
Partition coefficient: n-octanol/water	-0,23
BCF	3
4-METHYLPENTAN-2-ONE	
Partition coefficient: n-octanol/water	1,9
N-BUTYL ACETATE	
Partition coefficient: n-octanol/water	2,3
BCF	15,3
BUTYLGLYCOL ACETATE	
Partition coefficient: n-octanol/water	1,51
METHYL OXIDE DIMETHYLETER	
Partition coefficient: n-octanol/water	0,07 Log Kow

12.4. Mobility in soil

1,2,4-TRIMETHYLBENZENE	
Partition coefficient: soil/water	3,04
4-METHYLPENTAN-2-ONE	
Partition coefficient: soil/water	2,008
N-BUTYL ACETATE	
Partition coefficient: soil/water	< 3
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM	
Partition coefficient: soil/water	1,78

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 greater than 0,1%.

12.6. 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.

METHYL OXIDE DIMETHYLETER
It can be used after reconditioning. In accordance with local and national regulations. It must be incinerated in a suitable incineration plant in possession of an authorization issued by the competent authorities.

ACETONE
Incinerate as hazardous waste according to applicable local, state and federal regulations. Do not throw in household waste.

5-METHYLHEXAN-2-ONE
Discharge, treatment or disposal may be subject to national, state or local laws. Incinerate. Since empty containers retain product residues, follow the warnings on the label even after the container has been emptied. Residual vapors can explode on ignition; do not cut, puncture, grind or weld on or near this container.

BUTYLGLYCOL ACETATE
Dispose of as hazardous waste. Recover or recycle if possible. Otherwise incineration. Dispose according to local regulations.

4-METHYLPENTAN-2-ONE
Product disposal: destroy the product by incineration (in accordance with local and national regulations).

BIS (1,2,2,6,6-PENTAMETHY-4-PIPERIDYL) SEBACATED
Confer non-recyclable solutions and surpluses to an authorized waste disposal company. Solubilize or mix the product with a combustible solvent, then burn in a chemical incinerator equipped with an afterburner and blast chiller system.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA:	1950

14.2. UN proper shipping name

ADR / RID:	AEROSOLS
IMDG:	AEROSOLS
IATA:	AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID:	Class: 2	Label: 2.1
IMDG:	Class: 2	Label: 2.1
IATA:	Class: 2	Label: 2.1

14.4. Packing group

ADR / RID, IMDG, IATA:	-

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
	Special Provision: -		
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Pass.:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Special Instructions:	A145, A167, A802	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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/EC: P3a

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

Product

Point	40

Contained substance

Point	28-29	SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM Reg. no.: 01-2119486773-24-XXXX

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 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. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Press. Gas	Pressurised gas
Carc. 1B	Carcinogenicity, category 1B
Muta. 1B	Germ cell mutagenicity, category 1B
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, 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
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.

H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may burst if heated.
H350	May cause cancer.
H340	May cause genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
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.
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.
EUH204	Contains isocyanates. May produce an allergic reaction.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 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 STEL: Short-term exposure limit
- TWA: Time-weighted average 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) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 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
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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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14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII 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.
Product`s classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.
The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:
The following sections were modified:
02 / 03 / 08 / 09 / 10 / 11 / 12 / 13 / 15 / 16.