Safety Data Sheet

According to Annex II to REACH - Regulation 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:	**TR-2K-400-GLO**
Product name	**NextClear Lucido**

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

Intended use	**Gloss clear spray paint for car body touch-up**
Uses advised against	Uses other than those stated.

1.3. Details of the supplier of the safety data sheet

Name	E-COMIT SRL
Full address	via G. Di Vittorio, 93-95 - Z.I. Terrafino
District and Country	Z.I. Terrafino - 50053 Empoli (FI) ITALY
	tel. +39 0571/530262
	fax +39 0571/534056
e-mail address of the competent person responsible for the Safety Data Sheet	info@vernicispray.com

1.4. Emergency telephone number

For urgent inquiries refer to:

United Kingdom	NHS 111
Ireland	Members of Public: +353 (01) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week) Healthcare Professionals: +353 (01) 809 2566 (24 hour service)
Malta	112

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:

Aerosol, category 1	H222	Extremely flammable aerosol.
	H229	Pressurised container: may burst if heated.
Acute toxicity, category 4	H332	Harmful if inhaled.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
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.

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.
H332	Harmful if inhaled.
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.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / eye protection / face protection.
P405	Store locked up.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents/container in accordance with all local/national/international regulation.

Contains:

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS

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

ACETONE

N-BUTYL ACETATE

2,3-EPOXYPROPYL NEODECANOATE

Statements on the aspiration toxicity classification were not included in the label elements, based on section 1.3.3. of Annex I to CLP.

VOC (Directive 2004/42/EC) :

Special finishes.

VOC given in g/litre of product in a ready-to-use condition :	691,92
Limit value:	840,00

2.3. Other hazards

Aerosol containers exposed to temperatures above 50°C can become deformed and burst, as well as being projected by a notable distance.
The aerosol contains an asphyxiating gas; prevent the build-up of fumes in large amounts in confined spaces as they can cause asphyxia due to a lack of oxygen. Exposure to high concentrations of fumes, especially in confined, inadequately ventilated spaces, can lead to irritation to the respiratory tract, nausea, illness and dizziness.

vPvB substances contained: 2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

PBT substances contained: 2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification (EC) 1272/2008 (CLP)**
DIMETHYL ETHER		
INDEX 603-019-00-8	25 ≤ x < 29	Flam. Gas 1A H220, Press. Gas (Comp.) H280
EC 204-065-8		
CAS 115-10-6		
REACH Reg. 01-2119472128-37-xxxx		
HEXAMETHYLENE DIISOCYANATE, OLIGOMERS		
INDEX -	15 ≤ x < 19,5	Acute Tox. 4 H332, STOT SE 3 H335, Skin Sens. 1 H317

		STA Inhalation mists/powders: 1,5 mg/l
EC 931-274-8		
CAS 28182-81-2		
REACH Reg. 01-2119485796-17-xxxx		
ACETONE		
INDEX 606-001-00-8	15 ≤ x < 19,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 200-662-2		
CAS 67-64-1		
REACH Reg. 01-2119471330-49-XXXX		
N-BUTYL ACETATE		
INDEX 607-025-00-1	8 ≤ x < 10	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1		
CAS 123-86-4		
REACH Reg. 01-2119485493-29-XXXX		
2-METHOXY-1-METHYLETHYL ACETATE		
INDEX 607-195-00-7	7 ≤ x < 9	Flam. Liq. 3 H226, STOT SE 3 H336
EC 203-603-9		
CAS 108-65-6		
REACH Reg. 01-2119475791-29-XXXX		
XYLENE		
INDEX 601-022-00-9	5 ≤ x < 7	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		*STA Dermal: 1100 mg/kg, STA Inhalation mists/powders: 1,5 mg/l*
CAS 1330-20-7		
REACH Reg. 01-2119488216-32		
AROMATIC HYDROCARBONS, C9		
INDEX 649-356-00-4	2 ≤ x < 3	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411
EC 265-199-0		

CAS 64742-95-6

REACH Reg. 01-2119455851-35-xxxx

ETHYLBENZENE

INDEX 601-023-00-4 | 1 ≤ x < 2 | Flam. Liq. 2 H225, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Aquatic Chronic 3 H412

STA Inhalation mists/powders: 1,5 mg/l

EC 202-849-4

CAS 100-41-4

REACH Reg. 01-2119489370-35-xxxx

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

INDEX - | 0,5 ≤ x < 0,7 | STOT RE 2 H373, Aquatic Chronic 4 H413

EC 247-384-8

CAS 25973-55-1

REACH Reg. 01-2119955688-17-xxxx

2,3-EPOXYPROPYL NEODECANOATE

INDEX - | 0,2 ≤ x < 0,3 | Muta. 2 H341, Skin Sens. 1 H317, Aquatic Chronic 2 H411

EC 247-979-2

CAS 26761-45-5

REACH Reg. 01-2119431597-33

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 - | 0,1 ≤ x < 0,25 | 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-XXXX

TOLUENE

INDEX 601-021-00-3 | 0,001 ≤ x < 0,1 | Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 3 H412

EC 203-625-9

CAS 108-88-3

REACH Reg. 01-2119471310-51-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.

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.
PROTECTIVE MEASURES FOR THE FIRST RESCUE WORKERS: for PPE (personal protection equipment) required for first aid refer to section 8.2 of this safety data sheet.

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

N-BUTYL ACETATE
Main symptoms:
Cough, nausea, vomiting, headache, state of unconsciousness, lack of breath, dizziness, narcosis.
Special danger:
Pulmonary edema, effects on the central nervous system, prolonged contact with the skin can degrease the skin and produce dermatitis.

2-METHOXY-1-METHYLETHYL ACETATE
Irritation of the respiratory tract in case of excessive exposure to fumes, mists or vapors.
Irritation may arise in case of repeated or prolonged exposure. Consult a doctor if irritation, swelling or redness of the skin develop and persist.

ACETONE
Risk of corneal clouding. Drying effect resulting in rough and cracked skin. Irritant effects. Somnolence, dizziness, narcosis, nausea, vomiting, stomach / intestinal upset, headache, drowsiness.

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

Treat symptomatically.
In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

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.
Vapors can cause dizziness, fainting or choking.
Firefighting operations must take into account the risk of explosion. Containers can explode if exposed to fire.

In the event of a fire, the following may develop: carbon monoxide, carbon dioxide, nitrogen oxides, isocyanate vapors and traces of hydrogen cyanide. Do not breathe the fumes.
Vapor is heavier than air and is able to travel a considerable distance from an ignition source and back. Vapors can form an explosive mixture with air.

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

6.1.1 For non-emergency personnel
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Wear appropriate respirator when ventilation is inadequate.
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. Do not breathe aerosol. Avoid leakage of the product into the environment.
Non-emergency personnel must follow the appropriate internal procedures in case of accidental release.

6.1.2 For emergency responders
Block the leakage if there is no hazard. Evacuate unprotected and untrained personnel from hazard area. Wear suitable protective equipment. (see Section 8 of this Safety data sheet)
Follow the appropriate internal procedures in case of accidental release.
Keep fumes and vapours under control. Isolate hazard area and deny entry. Ventilate closed spaces before entering. Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

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

Pressurized container. Do not pierce or burn the container or tamper with the valve even after use.

Keep away from heat, sparks and open flames, do not smoke or use matches or lighters.
Avoid the accumulation of electrostatic charges. Do not turn electrical equipment back on until the vapors have dispersed. Not smoking.
Do not spray on flames or incandescent bodies. Vapors can ignite with explosion, therefore accumulation must be avoided by keeping doors and windows open and ensuring cross ventilation.
Without adequate ventilation, vapors can accumulate on the ground and catch fire even at a distance, if triggered, with the risk of backfire.
For conditions to avoid and incompatibilities refer respectively to sections 10.4 and 10.5 of this safety data sheet.

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.

N-BUTYL ACETATE
Suitable material: stainless steel, mild steel, aluminum
Unsuitable material: copper and some types of plastic and rubber

2-METHOXY-1-METHYLETHYL ACETATE
Suitable materials for packaging: Carbon steel, stainless steel.
Materials NOT suitable for packaging: common metals, mild steel, aluminum, copper.
Avoid contact with acids and oxidizing agents.

7.3. Specific end use(s)

No use other than as indicated in section 1.2 of this safety data sheet

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

IRL	Éire	2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
MLT	Malta	PROTECTION OF THE HEALTH AND SAFETY OF WORKERS FROM THE RISKS RELATED TO CHEMICAL AGENTS AT WORK REGULATIONS (S.L.424.24). PROTECTION OF WORKERS FROM THE RISKS RELATED TO EXPOSURE TO CARCINOGENS OR MUTAGENS AT WORK REGULATIONS (S.L.424.22)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,01	mg/l
Normal value in marine water	0,001	mg/l

Normal value for fresh water sediment	45,1	mg/kg
Normal value for marine water sediment	4,41	mg/kg
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	9	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							VND	0,7 mg/kg
Skin							VND	0,3 mg/kg bw/d

2,3-EPOXYPROPYL NEODECANOATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0035	mg/l
Normal value in marine water	0,00035	mg/l
Normal value of STP microorganisms	50	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	1965 mg/m3
Skin							VND	1,4 mg/kg/d

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
VLEP	ITA				0,02	SKIN	Isocianato di metile

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	266701	mg/kg
Normal value for marine water sediment	26670	mg/kg
Normal value for water, intermittent release	1,27	mg/l
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
Oral	NPI		NPI					
Inhalation	NPI		NPI		1 mg/m3	NPI	0,5 mg/m3	NPI
Skin	NPI		NPI			NPI		NPI

AROMATIC HYDROCARBONS, C9

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	11 mg/kg bw/d				
Inhalation			VND	32 mg/m3			VND	150 mg/m3
Skin			VND	11 mg/kg bw/d			VND	25 mg/kg bw/d

DIMETHYL ETHER

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OELV	IRL	1920	1000			

TLV	MLT	1920	1000					
WEL	GBR	766	400	958	500			
OEL	EU	1920	1000					
Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,155	mg/l			
Normal value in marine water				0,016	mg/l			
Normal value for fresh water sediment				0,681	mg/kg/d			
Normal value for marine water sediment				0,069	mg/kg/d			
Normal value for water, intermittent release				1,549	mg/l			
Normal value of STP microorganisms				160	mg/l			
Normal value for the terrestrial compartment				0,045	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				1894 mg/m3

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OELV	IRL	241	50	723	150	
TLV	MLT	241	50	723	150	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	Butil acetati (Isomeri)
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 for water, intermittent release	0,36	mg/l
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 systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,4 mg/kg bw/d				
Inhalation			VND	12 mg/m3			VND	48 mg/m3
Skin			VND	3,4 mg/kg bw/d			VND	7 mg/kg bw/d

XYLENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OELV	IRL	221	50	442	100	
TLV	MLT	221	50	442	100	
WEL	GBR	221	50	442	100	
OEL	EU	221	50	442	100	Miscela di isomeri
TLV-ACGIH		434	100	651	150	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l

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

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,6 mg/kg bw/d				
Inhalation	174 mg/m3	174 mg/m3		14,8 mg/m3	289 mg/m3	289 mg/m3		77 mg/m3
Skin				108 mg/kg bw/d				180 mg/kg bw/d

ETHYLBENZENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OELV	IRL	442	100	884	200	SKIN
TLV	MLT	442	100	884	200	SKIN
WEL	GBR	441	100	552	125	SKIN
OEL	EU	442	100	884	200	SKIN
TLV-ACGIH		87	20			

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	13,7	mg/kg/d
Normal value for marine water sediment	1,37	mg/kg/d

Normal value of STP microorganisms	9,6	mg/l
Normal value for the terrestrial compartment	2,68	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,6 mg/kg bw/d				
Inhalation				15 mg/m3	293 mg/m3			77 mg/m3
Skin								180 mg/kg bw/d

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OELV	IRL	275	50	550	100	SKIN
TLV	MLT	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	
OEL	EU	275	50	550	100	SKIN

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,635	mg/l
Normal value in marine water	0,064	mg/l
Normal value for fresh water sediment	3,29	mg/kg/d
Normal value for marine water sediment	0,329	mg/kg/d
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,29	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers	Effects on workers

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		500 mg/kg bw/d		36 mg/kg bw/d				
Inhalation			33 mg/m3	33 mg/m3	550 mg/m3			275 mg/m3
Skin								796 mg/kg bw/d

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OELV	IRL	192	50	384	100	SKIN
TLV	MLT	192	50	384	100	SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH			20			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,68	mg/l
Normal value in marine water	0,68	mg/l
Normal value for fresh water sediment	16,39	mg/kg/d
Normal value for marine water sediment	16,39	mg/kg/d
Normal value of STP microorganisms	13,61	mg/l
Normal value for the terrestrial compartment	2,89	mg/kg/d

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				8,13 mg/kg bw/d				
Inhalation	226 mg/m3	226 mg/m3	56,5 mg/m3	56,5 mg/m3	384 mg/m3	384 mg/m3	192 mg/m3	192 mg/m3

Skin		226 mg/kg bw/d		384 mg/kg bw/d

ACETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OELV	IRL	1210	500			
TLV	MLT	1210	500			
WEL	GBR	1210	500	3620	1500	
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/d
Normal value for marine water sediment	3,04	mg/kg/d
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	29,5	mg/kg/d

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

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.

BEI (Biological exposure indices) (ACGIH 2022):

ACETONE

Acetone in urine: 25 mg/L (sampling time: end of shift)

ETHYL BENZENE

Sum of mandelic acid and phenylglyoxylic acid in urine: 0.15 g/g creatinine (sampling time: end of shift)

XYLENE

Methylhippuric acids in urine: 1.5 g/g creatinine (sampling time: end of shift)

TOLUENE
Toluene in blood: 0.02 mg/L (sampling time: prior to last shift of workweek).
Toluene in urine: 0.03 mg/L (sampling time: end of shift).
o-Cresol in urine: 0.3 mg/g (sampling time: end of shift).

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 work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

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

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

RESPIRATORY PROTECTION
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.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	Liquid under pressure - aerosol	
Colour	colourless	
Odour	Characteristic of solvent	
Melting point / freezing point	not available	
Initial boiling point	not applicable	
Flammability	Extremely flammable aerosol.	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	not applicable	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	The product is not soluble in water
Kinematic viscosity	not available	
Solubility	Insoluble in water	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	not available	
Relative vapour density	not available	
Particle characteristics	Not relevant based on physical state	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Under normal conditions of use and storage no dangerous reactions are foreseeable.
Vapors can form explosive mixtures with air.
Vapor is heavier than air and can travel a considerable distance from an ignition source and back. Risk of explosion on contact with: strong oxidizing agents. It can react dangerously with alkaline hydroxides, potassium tert-butoxide. Vapors can form an explosive mixture with air.

ETHYLBENZENE
Reacts violently with strong oxidants and attacks different types of plastics. It can form explosive mixtures with the 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.

10.4. Conditions to avoid

Avoid overheating and exposure to heat sources, open flames.
Avoid contact with strong oxidants, strong bases and strong acids.

10.5. Incompatible materials

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

DIMETHYL ETHER
Oxigen, oxidising agent, strong acids, carbon monoxide, acetic anhydride, metal powders

N-BUTYL ACETATE
nitrates, strongly oxidizing substances, acids, bases and potassium t-butoxide.

2-METHOXY-1-METHYLETHYL ACETATE
Common metals, mild steel, aluminum, copper.

TOLUENE
Strong acids and strong oxidizing agents.

ACETONE
Incompatible with: acids,oxidising substances.

10.6. Hazardous decomposition products

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
In the event of a fire, the following may develop: carbon monoxide, carbon dioxide, nitrogen oxides, isocyanate vapors and traces of hydrogen cyanide. Do not breathe the fumes.

DIMETHYL ETHER
Formaldehyde, carbon dioxide (CO_2), carbon monoxide, methanol.

ETHYLBENZENE
Methane, styrene, hydrogen, ethane.

ACETONE
May develop: ketenes,irritant substances.

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

DIMETHYL ETHER
Method: equivalent or similar to OECD 417
Reliability (Klimisch score): 2
Species: rat (Wistar; Male)
Exposure: inhalation (gas)
Results: low bioccumulation potential at 1000 ppm

N-BUTYL ACETATE
Method: publication (2000)
Reliability (Klimisch score): 1
Species: rat (Sprague Dawley; Male)
Exposure: intravenous
Results: no potential bioaccumulation
30 mg / kg of n-butyl acetate is rapidly absorbed and distributed via the circulatory system to the brain. During the distribution and accumulation phase, with a half-life of 0.4 min, the substance hydorizes into n-butanol. It has been observed that 99% of the hydrolysis of the substance (at the concentration of 30 mg / kg) occurs in 2.7 minutes.

2-METHOXY-1-METHYLETHYL ACETATE
Bibliographic reference: Toxicol. Appl. Pharm. 75: 521-530 (1984)
Reliability (Klimisch score): 2
Species: rat (Fischer 344; Male / Female) and mouse (B6C3F1; Male / Female)
Routes of exposure: oral and inhalation
Results:
- after a single inhalation exposure approximately 53% and 26% of the substance were excreted from the lungs (as CO_2) and via the urine respectively in the first 48 h of exposure. The substance was found (in decreasing order of concentration): in the liver, blood, fat and kidneys.
- after a single oral dose approximately 64% and 24% of the substance were excreted from the lungs (as CO_2) and urine respectively in the first 48 hours after administration.

TOLUENE
Toluene is rapidly absorbed from the lungs (approximately 50%), but absorption by the skin is limited. Toluene is readily metabolizable, mainly to benzoic acid. In proportion 20% of Toulene is eliminated by respiration, the remaining 80% metabolized or excreted in the urine. European Union Risk Assessment Report, Volume 30 (2003)

ACETONE
Acetone is rapidly absorbed by inhalation, ingestion and through the skin and is rapidly distributed throughout the body, particularly in organs with a high water content. It is completely metabolized and the formation of metabolites is dose-related: at low doses there is the formation of methylglyoxal, at higher doses there is the formation of propanediol.
The elimination of low concentrations occurs through the exhaled air, while if the concentration is equal to or greater than 15 ppm the elimination also takes place through the urine.

Information on likely routes of exposure

DIMETHYL ETHER
In 1978 a study was conducted on male volunteers to study the toxicokinetics of the substance following application as a hair spray.
After a long exposure (15 minutes in an approximately 20 m3 non-ventilated room), the concentrations of the substance in the blood can increase to approx. 0.5 ppm (approximately 500 µg / L of blood). These concentrations, however, decreased rapidly during the alpha elimination phase on male volunteers to study the substance toxicokinetics following application as a hair spray.
After a long exposure (15 minutes in an approximately 20 m3 non-ventilated room), the concentrations of the substance in the blood can increase to approx. 0.5 ppm (approximately 500 µg / L of blood). These concentrations, however, decreased rapidly during the alpha phase of elimination.

N-BUTYL ACETATE
In vitro tests on the skin permeability of n-butyl acetate indicate that the substance has a low tendency to penetrate the skin. (human skin test from female donors) (method equivalent or similar to OECD 428)
It can be absorbed into the body by inhalation.

2-METHOXY-1-METHYLETHYL ACETATE
Inhalation at room temperature is unlikely due to the low steam pressure of the substance

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

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

N-BUTYL ACETATE
In humans, the vapors of the substance cause irritation of the eyes and nose. In case of repeated exposure, skin irritation, dermatosis (with dryness and cracking of the skin) and keratitis occur.

2-METHOXY-1-METHYLETHYL ACETATE
Irritation of the respiratory tract in case of excessive exposure to fumes, mists or vapors.
Irritation may arise in case of repeated or prolonged exposure. Consult a doctor if irritation, swelling or redness of the skin develop and persist.

TOLUENE
It has a toxic action on the central and peripheral nervous system with encephalopathies and polyneuritis; the irritating action is exerted on the skin, conjunctiva, cornea and respiratory system.

Interactive effects

TOLUENE
Some medicines or other industrial products can interfere with the metabolism of toluene.

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	3,9 mg/l
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	>2000 mg/kg

2,3-EPOXYPROPYL NEODECANOATE

LD50 (Dermal):	> 2000 mg/kg Rat (OECD 402)
LD50 (Oral):	> 2000 mg/kg Rat (OECD 420)

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Method: equivalent or similar to OECD 423
Reliability (Klimisch Score): 2
Species: rat (TIF: Raif (SPF); males/females)
Exhibition: oral
Results: LD50 = 3230 mg/kg body weight
Method: equivalent or similar to OECD 402
Reliability (Klimisch Score): 2
Species: rat (Tif. Rai; male/females)
Exposure: skin
Results: LD50> 3170 mg/kg body weight

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL
Method: equivalent or similar to OECD 401
Reliability (Klimisch Score): 2
Species: rat (TIF: Raif (SPF); Male/Female)
Exhibition: oral
Results: LD50> 7750 mg/kg BW
Method: equivalent or similar to OECD 403
Reliability (Klimisch Score): 2
Species: rat (Tif: Raif; male/female)
Exhibition: Inhalation (Aerosol)
Results: LC50> 0.4 mg/L Air
Method: equivalent or similar to OECD 402
Reliability (Klimisch Score): 2
Species: rabbit (albino; male/female)
Exhibition: skin
Results: LD50> 1100 mg/kg BW.

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD 423
Reliability (Klimisch score): 1
Species: rat (Sprague-Dawley; Female)
Exhibition: oral
Results: LD50> 2500 mg/kg body weight
Method: OECD 403
Reliability (Klimisch score): 1
Species: rat (wistar; male/female)
Exhibition: Inhalation (Aerosol)
Results: the substance is classified harmful to inhalation. LC50 390 mg/m³
Method: OECD 402
Reliability (Klimisch score): 1
Species: rat (Sprague-Dawley; male/female)
Exhibition: skin
Results: LD50> 2000 mg/kg body weight

AROMATIC HYDROCARBONS, C9

Reference: study report (1977)
Reliability (Klimisch score): 2
Species: rat (Charles River CD; Male / Female)
Exposure: oral
Results: LD50 (male): 6984 mg / kg. LD50 (female): 3492 mg / kg
Method: equivalent or similar to OECD 403
Reliability (Klimisch score): 1
Species: rat (Crl: CDBR; Male / Female)
Exposure: inhalation (vapors)
Results: LC50:> 6,193 mg / l
Method: equivalent or similar to OECD 402
Reliability (Klimisch score): 2
Species: rabbit (New Zealand White; Male / Female)
Exposure: cutaneous
Results: LD50:> 3160 mg / kg.

DIMETHYL ETHER
Method: not indicated
Reliability (Klimisch score): 2
Species: rat (albino ChR-CD; Male)
Exposure: inhalation (gas)
Results LC50: 164000 ppm 4h

N-BUTYL ACETATE
Method: equivalent or similar to OECD 423
Reliability (Klimisch score): 2
Species: Rat (Sprague-Dawley; Male / Female)
Exposure: oral
Results: LD50 = 12789 mg / kg
Method: OECD 403
Reliability (Klimisch score): 1
Species: Rat (Wistar; male / Female)
Exposure: inhalation (aerosol)
Results: LC50 = 0.74 mg / L (4h)
Method: equivalent or similar to OECD 402
Reliability (Klimisch score): 2
Species: Rabbit (New Zealand White; Male / Female)
Exposure: dermal
Results: LD50> 16 mL / kg bw

XYLENE
Method: equivalent or similar to EU B.1
Reliability (Klimisch score):
Species: rat (F344 / N; Male / Female)
Routes of exposure: oral
Results: LD50 = 3523 mg / kg
Method: equivalent or similar to EU B.2
Reliability (Klimisch score): 2
Species: rat (Long-Evans; Male)
Routes of exposure: inhalation
Results: LC50 = 6350 ppm 4h
Harmful if inhaled (Annex VI, CLP regulation).
Reference: The toxicological properties of hydrocarbon solvents (Industrial Medicine 39, 215-200. (1970)), read across
Reliability (Klimisch score): 2
Species: rabbit (New Zeland White)
Routes of exposure: dermal
Results: LD50> 5000 ml / kg.
Harmful in contact with skin (Annex VI, CLP regulation).

ETHYLBENZENE
Reference: "Toxicological studies of certain alkylated benzenes. (AMA Arch. Ind. Health. 14: 387-398. (1956))"
Reliability (Klimisch score): 2
Species: rat (Wistar; Male / Female)
Routes of exposure: oral
Results: LD50 = 3500 mg / kg

The substance is classified as harmful by inhalation. Cat. 4 (Harmonized classification, Annex VI, Reg. CLP)
Reference: Range finding toxicity data: List VI (Am. Ind. Hyg. Assoc. J. 23: 95-107 (1962))
Reliability (Klimisch score): 2
Species: rabbit (New Zealand White; Male)
Routes of exposure: dermal
Results LD50: 17.8 mL / kg.

2-METHOXY-1-METHYLETHYL ACETATE
Method: equivalent or similar to OECD 401
Reliability (Klimisch score): 2
Species: rat (Fischer 344; Male / Female)
Exposure: oral
Results: LD50 = 5155 mg / kg
Method: equivalent or similar to OECD 402
Reliability (Klimisch score): 2
Species: rat (Fischer 344; Male / Female)
Exposure: cutaneous
Results: LD50> 2000 mg / kg.
Method: study report (1985)
Reliability (Klimisch score): 1
Species: mouse (B6C3F1; Male)
Exposure: inhalation
Results: LC0> 10.8 mg / l 3h.

TOLUENE
Method: equivalent or similar to EU B.1
Reliability (Klimisch score): 2
Species: rat (Sprague-Dawley Cobb; Male)
Exposure: oral
Results: LD50 = 5580 mg / kg
Method: equivalent or similar to OECD 403
Reliability (Klimisch score): 2
Species: rat (Sprague-Dawley; Male / Female)
Exposure: inhalation (steam)
Results: LC50 = 25.7 mg / l
Bibliographical references: Range-finding toxicity data: List VII (American Industrial Hygiene Association Journal 30, 470-476 (1969))
Reliability (Klimisch score): 2
Species: rabbit
Exposure: cutaneous
Results: LD50 = 14.1 ml / kg.

ACETONE
Bibliographical references: Freeman JJ et al., J Toxicol Environ Health (1985)
Method: no guidelines
Reliability (Klimisch score): 2
Species: Rat (Sprague-Dawley; Female)
Exposure: oral
Results: LD50 = 5800 mg / kg bw
Bibliographical references: Roudabush RL et al., Toxicol Appl Pharmacol (1965)
Method: no guidelines
Reliability (Klimisch score): 2
Species: Rabbit (White; Male / Female)
Exposure: cutaneous
Results: LD50 = 7400 mg / kg bw
Bibliographic reference: Bruckner JV et al. , Toxicol Appl Pharmacol (1981)
Method: no guidelines
Reliability (Klimisch score): 2
Species: Rat (Sprague-Dawley; Male)
Exposure: inhalation (vapors)
Results: LC50 = 132 mg / L air

SKIN CORROSION / IRRITATION

Causes skin irritation

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Method: equivalent or similar to OECD 404
Reliability (Klimisch Score): 2
Species: rabbit (New Zealand White)
Exposure: skin
Results: not irritating

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD 404
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White)
Exhibition: skin
Results: not irritating.

AROMATIC HYDROCARBONS, C9
Method: OECD 404
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White)
Exposure: cutaneous
Results: non-irritating.

N-BUTYL ACETATE
Method: equivalent or similar to OECD 404
Reliability (Klimisch score): 2
Species: rabbit (New Zealand White)
Exposure: cutaneous
Results: non-irritating.

XYLENE
Method: equivalent or similar to EU B.4
Reliability (Klimisch score): 2
Species: rabbit (New Zeland White)
Routes of exposure: dermal
Results: irritating.

ETHYLBENZENE
Bibliographical references: "Range finding toxicity data: List VI (Am. Ind. Hyg. Assoc. J. 23:95-107 (1962))"
Reliability (Klimisch score): 2
Species: rabbit
Exposure: dermal
Results: not irritating

2-METHOXY-1-METHYLETHYL ACETATE
Method: equivalent or similar to OECD 404
Reliability (Klimisch score): 2
Species: rabbit (New Zealand White)
Exposure: dermal
Results: non-irritating.

ACETONE
Bibliographical references: Anderson C. et al., Contact Dermatitis 15: 143-151 (1986)
Method: no guidelines
Reliability (Klimisch score): 2
Species: Guinea pig (Dunkin-Hartley)
Exposure: cutaneous
Results: non-irritating

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Method: equivalent or similar to OECD 405
Reliability (Klimisch Score): 2
Species: rabbit (New Zealand White)
Exposure: Eyes
Results: not irritating

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD 405
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White)
Exhibition: eyes
Results: not irritating.

AROMATIC HYDROCARBONS, C9
Method: equivalent or similar to OECD 405
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White)
Exposure: ocular
Results: non-irritating.

N-BUTYL ACETATE
Method: OECD 405
Reliability (Klimisch score): 2
Species: rabbit (New Zealand White)
Exposure: ocular
Results: non-irritating.

XYLENE
Reference: The toxicological properties of hydrocarbon solvents (Industrial Medicine 39, 215-200. (1970))
Reliability (Klimisch score): 2
Species: rabbit (New Zeland White)
Exposure routes: ocular
Results: irritating.

ETHYLBENZENE
Bibliographical references: "Toxicological studies of certain alkylated benzenes. (AMA Arch. Ind. Health. 14:387-398 (1965))
Reliability (Klimisch score): 2
Species: rabbit
Exposure: eye
Results: slightly irritant

2-METHOXY-1-METHYLETHYL ACETATE
Method: equivalent or similar to OECD 404
Reliability (Klimisch score): 2
Species: rabbit (New Zealand White)
Exposure: dermal
Results: non-irritating.

ACETONE
Method: equivalent or similar to OECD 405
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White)
Exposure: ocular
Result: irritant (Harmonized classification, Annex VI, CLP Reg.)

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Skin sensitization

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD 429
Reliability (Klimisch score): 1
Species: mouse (cba; female)
Exhibition: skin
Results: sensitizing for the skin.

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Method: OECD 406
Reliability (Klimisch Score): 2
Species: Guinea pig (Pirbright White; males/females)
Exposure: skin
Results: Sensitizing

2,3-EPOXYPROPYL NEODECANOATE
Method: OECD 406
Reliability (Klimisch score): 1
Species: Guinea Pig (Dunkin-Hartley; Males / Females)
Exposure: dermal
Results: sensitizer

AROMATIC HYDROCARBONS, C9
Method: OECD 404
Reliability (Klimisch score): 1
Species: guinea pig (Hartley; Female)
Exposure: cutaneous
Results: not sensitizing.

N-BUTYL ACETATE
Based on the strength of evidence of the available data as determined by expert judgment, the substance is not classified for the hazard class of Skin Sensitization.

XYLENE
Method: equivalent or similar to OECD 429
Reliability (Klimisch score): 2
Species: mouse
Routes of exposure: dermal
Results: non-sensitizing.

ETHYLBENZENE
Based on the probative force of the available data determined by expert judgment, the substance is classified as non-sensitizing.

2-METHOXY-1-METHYLETHYL ACETATE
Method: equivalent or similar to OECD 406
Reliability (Klimisch score): 2
Species: guinea pig (Dunkin-Hartley; Male / Female)
Exposure: dermal
Results: not sensitizing.

ACETONE
Bibliographical references: Nakamura A. et al., Contact Dermatitis 31: 72-85 (1994)
Method: no guidelines
Reliability (Klimisch score): 2
Species: guinea pig (Hartley; Female)
Exposure: cutaneous
Result: not sensitizing

Respiratory sensitization

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD Tg 403
Reliability (Klimisch Score): 2
Species: Guinea pig (Dunkin-Hartley; female)
Exhibition: inhalation
Results: non-sensitizing

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Method: OECD 476 - In vitro test
Reliability (Klimisch score): 1
Species: Chinese hamster lung fibroblasts
Results: negative with and without metabolic activation.
Method: OECD 474 - In vivo test
Reliability (Klimisch score): 1
Species: mouse (NMRIi; males)
Exhibition: oral
Results: negative.

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD 471 - in vitro test
Reliability (Klimisch score): 1
Species: S. Typhimurium Ta 1535, TA 1537, TA 98 and TA 100 E E. COLI WP2
Results: negative
Method: equivalent or similar to OECD 474 - in vivo test
Reliability (Klimisch Score): 2
Species: mouse (cd-1; male/female)
Results: negative with and without metabolic activation

AROMATIC HYDROCARBONS, C9
Method: equivalent or similar to OECD 475 - In vivo test
Reliability (Klimisch score): 2
Species: rat (Sprague-DAwley; Male / Female)
Exposure: inhalation (vapors)
Results: negative.

N-BUTYL ACETATE
Method: equivalent or similar to OECD 471 - In vitro test
Reliability (Klimisch score): 2
Species: TA 98, TA 100, TA 1535, TA 1537, TA 1538 and E. coli WP2 uvr A
Results: negative.
Method: OECD 474 - In vivo test
Reliability (Klimisch score): 2
Species: mouse (NMRI)
Exposure: oral
Results: negative.

XYLENE
Method: equivalent or similar to OECD 478
Reliability (Klimisch score): 2
Species: mouse (Swiss Webster; Male / Female)
Exposure: subcutaneous
Results: negative.

ETHYLBENZENE
Method: OECD 476 - In vitro test

Reliablity (Klimisch score): 1
Species: mouse L5178Y (lymphoma cells)
Results: negative with metabolic activation - negative without metabolic activation
Method: OECD 474 - In vivo test
Reliablity (Klimisch score): 1
Species: mouse (NMRI; Male)
Exposure: oral
Results: negative

2-METHOXY-1-METHYLETHYL ACETATE
Method: OECD 471 - In vitro test
Reliability (Klimisch score): 1
Species: Salmonella typhimurium strains TA98, TA100, TA1535, TA1537, TA1538
Results: negative with and without metabolic activation

ACETONE
Method: equivalent or similar to OECD 471 - in vitro test
Reliability (Klimisch score): 1
Species: S. typhimurium
Result: negative
Bibliographical references: National Toxicology Program (NTP) (1991) - In vivo testing
Method: no guidelines
Reliability (Klimisch score): 2
Species: Mouse (B6C3F1; Male / Female)
Exposure: oral
Results: negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Data not available.

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Data not available.

AROMATIC HYDROCARBONS, C9
Based on available data, the substance has no carcinogenic effects and is not classified under the CLP hazard class of carcinogenicity

N-BUTYL ACETATE
Data not available.

XYLENE
Method: equivalent or similar to EU Method B.32
Reliability (Klimisch score): 2
Species: mouse (B6C3F1; Male / Female)
Exposure: oral
Results: negative.

ETHYLBENZENE
Based on the available data, the substance has no carcinogenic effects and is not classified under this CLP hazard class.

2-METHOXY-1-METHYLETHYL ACETATE
Method: OECD 453
Reliability (Klimisch score): 1
Species: rat (Fischer 344 Male / Female)
exposure: inhalation (vapors)
Results: no carcinogenic effect. NOAEL (toxicity): 300 ppm. NOAEL (carcinogenicity): 3000 ppm

ACETONE
Bibliographical references: Van Duuren BL et al., Cancer Res 38: 3236-3240 (1978)
Method: no guidelines
Reliability (Klimisch score): 2
Species: Mouse (ICR; Female)
Exposure: dermal
Results: negative

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Based on the available data, the substance has effects of reproduction toxicity and is classified under the relative CLP danger class. Suspected of harming fertility.

ACETONE
Based on available data, the substance has no reproductive toxicity effects and is not classified under the relevant hazard class CLP.

Adverse effects on sexual function and fertility

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD 422
Reliability (Klimisch Score): 2
Species: rat (Sprague-Dawley; male/female)
Exhibition: Inhalation (vapors)
Results: negative. NOEL (reproduction) (development) = 0.300 ppm (2.03 mg / m3)

AROMATIC HYDROCARBONS, C9
Reference: publication (1990)
Reliability (Klimisch score): 2
Species: rat (Crj: CD (SD) Male / Female)
Exposure: inhalation (vapors)
Results: negative. NOAEC (P0): 1500 ppm. LOAEC (P0): 1500 ppm.

N-BUTYL ACETATE
Method: OECD 416
Reliability (Klimisch score): 1
Species: rat (Sprague-Dawley; Male / Female)
Exposure: inhalation (vapors)
Results: negative.

XYLENE
Method: equivalent or similar to EPA OPPTS 870.3800, read across
Reliability (Klimisch score): 1
Species: rat (Crl: CD (SD) IGS BR; Male / Female)
Exposure: inhalation (vapors)
Results: negative.

ETHYLBENZENE
Method: equivalent or similar to OECD 415
Reliablity (Klimisch score): 1
Species: rat (Sprague-Dawley Male/Female)
Exposure: inhalation
Results: the substance is not classified for this hazard class. NOAEC (F0): 1000 ppm. NOEC (F1): 100 ppm

2-METHOXY-1-METHYLETHYL ACETATE
Method: OECD 416
Reliability (Klimisch score): 1
Species: rat (Sprague-Dawley; Male / Female)

Exposure: inhalation (vapors)
Results: negative. NOAEL (P0) = 300 ppm. NOAEL (F1): 1000 ppm. NOAEL (F2) = 1000 ppm.

Adverse effects on development of the offspring

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD 414
Reliability (Klimisch Score): 2
Species: rat (wistar)
Exhibition: inhalation
Results: negative. NOAEC (maternal): 1 mg/m3. Noaec (fetus): 1 mg/m3

AROMATIC HYDROCARBONS, C9
Reference: publication (1990)
Reliability (Klimisch score): 2
Species: mouse (CD - 1)
Exposure: inhalation (vapors)
Results: negative. NOAEC (maternal and developmental): 100 ppm. LOAEC (maternal and development): 500 ppm.

N-BUTYL ACETATE
Method: equivalent or similar to OECD 414
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White)
Exposure: inhalation (vapors)
Results: negative.

XYLENE
Method: equivalent or similar to OECD 414
Reliability (Klimisch score): 2
Species: rat (Sprague-Dawley)
Exposure: inhalation (vapors)
Results: negative.

ETHYLBENZENE
Method: OECD 414
Reliability (Klimisch score): 1
Species: rat (Sprague-Dawley)
Routes of exposure: inhalation
Results: slight effects on skeletal development at 1000/2000 ppm and on fetal weight. Slight maternal toxicity effects at 1000/2000 ppm (weight gain). Based on the data collected, the substance is not classified in this hazard class. NOAEC (maternal) = 500 ppm. NOAEC (development) = 500 ppm NOAEC (teratogenicity) = 2000 ppm

2-METHOXY-1-METHYLETHYL ACETATE
Method: equivalent or similar to OECD 414
Reliability (Klimisch score): 1
Species: Rat (Fischer 344)
Exposure: inhalation
Results: negative. NOAEL (maternal) = 500 ppm. NOAEL (teratogenicity)> 4000 ppm

ACETONE
Method: equivalent or similar to OECD 414
Reliability (Klimisch score): 1
Species: rat (Sprague-Dawley)
Exposure: inhalation (aerosol)
Result: no teratogenic effect.

STOT - SINGLE EXPOSURE

May cause respiratory irritation

May cause drowsiness or dizziness

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Based on the available data, the substance does not have specific toxicity effects for target organs for single exposure and is not classified under the relative CLP danger class.

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Based on the available data, the substance has specific toxicity effects for target organs for single exposure and is classified under the relative CLP danger class. Can cause respiratory irritation

AROMATIC HYDROCARBONS, C9
Based on available data, the substance exhibits specific target organ toxicity effects from single exposure and is classified under the relevant CLP hazard class. It can cause drowsiness or dizziness. It can irritate the respiratory tract.

N-BUTYL ACETATE
Method: EPA OTS 798.6050
Reliability (Klimisch score): 1
Species: rat (Sprague-Dawley; Male / Female)
Exposure: inhalation (vapors)
Results: induces transient narcotic effects at concentrations of 1500 and 3000 ppm, with no tendency to accumulate.

XYLENE
Based on the available data, the substance exhibits specific target organ toxicity effects on sinle exposure and is classified under the relevant CLP hazard class.

ETHYLBENZENE
Based on available data, the substance has no specific target organ toxicity effects from single exposure and is not classified under the relevant CLP hazard class.

2-METHOXY-1-METHYLETHYL ACETATE
Based on available data, the substance exhibits specific target organ toxicity effects from single exposure and is classified under the relevant CLP hazard class.

ACETONE
May cause drowsiness or dizziness (Harmonized classification, Annex VI, CLP Reg.)

Target organs

AROMATIC HYDROCARBONS, C9
Central nervous system, respiratory tract.

N-BUTYL ACETATE
Central nervous system.

XYLENE
respiratory tract

2-METHOXY-1-METHYLETHYL ACETATE
Central nervous system

ACETONE
Central nervous system

Route of exposure

AROMATIC HYDROCARBONS, C9
Inhalation.

XYLENE
inhaltion

2-METHOXY-1-METHYLETHYL ACETATE
ingestion

ACETONE
Inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Based on the available data, the substance does not have specific toxicity effects for target organs for repeated exposure and is not classified under the relative CLP danger class.

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Method: OECD 413
Reliability (Klimisch score): 1
Species: rat (wistar; male/female)
Exhibition: Inhalation (Aerosol)
Results: negative. NOAEL = 3.3 mg/m³ air.

AROMATIC HYDROCARBONS, C9
Method: equivalent or similar to OECD 408
Reliability (Klimisch score): 2
Species: rat (Sprague-Dawley; Male / Female)
Exposure: oral
Results: negative. NOAEL: 600 mg / kg body weight / day
Method: equivalent or similar to OECD 452, read across
Reliability (Klimisch score): 1
Species: rat (Wistar; Male / Female)
Exposure: inhalation (vapors)
Results: negative. NOAEC (male): 1.8 mg / l. NOAEC (female): 0.9 mg / l

N-BUTYL ACETATE
Method: EPA OTS 798.2650 - 90 days test
Reliability (Klimisch score): 1
Species: rat (Sprague-Dawley Male / Female)
Exposure: oral
Results: caused CNS effects (ataxia and hypoactivity). NOAEL = 125 mg / kg.
Based on the probative force of the available data determined by expert judgment the substance is not classified for this hazard class.

XYLENE
Based on the available data, the substance exhibits specific target organ toxicity effects on repeated exposure and is classified under the relevant CLP hazard class.

ETHYLBENZENE
Based on the available data, the substance has specific target organ toxicity effects due to repeated exposure and is classified under the relevant CLP hazard class. (Harmonized classification, Annex VI, CLP Reg.)
Method: OECD 407
Reliability (Klimisch score): 1
Species: rat (Wistar; Male / Female)
Routes of exposure: oral
Results: weight gain of the liver caused by hepatocellular hypertrophy seen at the highest dose. NOAEL: 75 mg / kg body weight / day

2-METHOXY-1-METHYLETHYL ACETATE
Based on available data, the substance has no specific target organ toxicity effects on repeated exposure and is not classified under the relevant CLP

hazard class.
Method: OECD 422
Reliability (Klimisch score): 2
Species: rat (Crj: CD (SD); Male / Female)
Exposure: oral
Results: negative. NOAEL> 1000 mg / kg / day
Method: OECD 453
Reliability (Klimisch score): 1
Species: rat (Fischer 344; Male / Female)
Exposure: inhalation (vapors)
Results: negative. NOAEL = 300 ppm
Method: equivalent or similar to OECD 410
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White; Male / Female)
Exposure: cutaneous
Results: negative. NOAEL> 1000 mg / kg body weight / day.

ACETONE
Method: equivalent or similar to OECD 408
Reliability (Klimisch score): 1
Species: rat (Fischer 344; Male / Female)
Exposure: oral
Result: negative

Target organs

XYLENE
skin (can cause chronic irritative dermatoses).

ETHYLBENZENE
hearing organs

Route of exposure

XYLENE
skin.

ASPIRATION HAZARD

Toxic for aspiration

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
There are no data available for hazards in case of aspiration.

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
There are no data available for hazards in case of aspiration.

AROMATIC HYDROCARBONS, C9
Based on available data, the substance is aspirated hazardous and is classified under the relevant hazard class CLP.

N-BUTYL ACETATE
No data are available on aspiration hazard.

XYLENE
Based on the available data, the substance is aspirated hazardous and is classified under the relevant hazard class CLP.

ETHYLBENZENE
Based on the available data, the substance is dangerous in case of aspiration and is classified under the relevant CLP hazard class (Harmonized

classification, Annex VI, CLP Reg.)

2-METHOXY-1-METHYLETHYL ACETATE
No data are available on the hazard in case of aspiration.

ACETONE
No data are available on aspiration hazard.

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

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
Short -term toxicity
fish LL0 (96 h)> = 100 mg/l Danio Rerio (EU c.1)

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	0,9 mg/l/96h Danio rerio (OECD 203)
EC50 - for Algae / Aquatic Plants	0,42 mg/l/72h Desmodesmus subspicatus (OECD 201)
Chronic NOEC for Crustacea	1 mg/l/21d Daphnia magna (OECD 211)

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

LC50 - for Fish	> 100 mg/l/96h Danio rerio (OECD 203)
EC50 - for Crustacea	> 10 mg/l/48h Daphnia pulex (OECD 202)

2,3-EPOXYPROPYL NEODECANOATE

LC50 - for Fish	5 mg/l/96h Oncorhynchus mykiss (OECD 203)
EC50 - for Crustacea	4,8 mg/l/48h Daphnia magna (OECD 202)
EC50 - for Algae / Aquatic Plants	1,2 mg/l/72h Pseudokirchnerella subcapitata (OECD 201)

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS

EC50 - for Crustacea	127 mg/l/48h Daphnia magna (EU C.2)
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Scenedesmus subspicatus (equivalent or similar to OECD 201)
EC10 for Algae / Aquatic Plants	370 mg/l/72h Scenedesmus subspicatus (equivalent or similar to OECD 201)

DIMETHYL ETHER

LC50 - for Fish	4100 mg/l/96h Poecilia reticulata; NEN 6504 Water - Determination of acute toxicity with Poecilia reticulata
EC50 - for Crustacea	> 4400 mg/l/48h Daphnia magna; NEN6501: Water -Determination of acute toxicity with Daphnia magna
EC50 - for Algae / Aquatic Plants	154917 mg/l/96h green algae; Data generated using ECOSAR v1.00 (September 2008)

N-BUTYL ACETATE

LC50 - for Fish	18 mg/l/96h Pimephales promelas (OECD 203)
EC50 - for Crustacea	44 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	674,7 mg/l/72h Desmodesmus subspicatus

XYLENE

LC50 - for Fish	2,6 mg/l/96h Oncorhynchus mykiss (OECD 203)
Chronic NOEC for Fish	> 1,3 mg/l 56d Oncorhynchus mykiss (Appl. Sci. Branch, Eng. Res. Cent. Denver, CO: 15p.)
Chronic NOEC for Crustacea	1,17 mg/l 7d Ceriodaphnia dubia (Ecotoxicology and Environmental Safety 39, 136-146)

ETHYLBENZENE

LC50 - for Fish	5,1 mg/l/96h (Menidia menidia; ASTM 1980 and US. EPA, 1985)
EC50 - for Crustacea	> 5,2 mg/l/48h (Mysidopsis bahia; Toxic Substance Control Act Guidelines: Final Rules (US. EPA, 1985).)
EC50 - for Algae / Aquatic Plants	4,9 mg/l/72h (Skeletonema costatum; U.S. EPA. 1985)

2-METHOXY-1-METHYLETHYL ACETATE

LC50 - for Fish	100 mg/l/96h (Oncorhynchus mykiss; OECD 203)
EC50 - for Crustacea	> 500 mg/l/48h (Daphnia magna; EU C.2)

Chronic NOEC for Fish	47,5 mg/l (Oryzias latipes; OECD 204)
Chronic NOEC for Crustacea	> 100 mg/l/21d (Daphnia magna; OECD 211)

TOLUENE

LC50 - for Fish	5,5 mg/l/96h Oncorhynchus kisutch (Moles A et al, Transactions A. Fish. Soc., 1981)
EC50 - for Crustacea	3,78 mg/l/48h Ceriodaphnia dubia (US EPA 600/4-91-003)
EC50 - for Algae / Aquatic Plants	134 mg/l/72h Chlorella vulgaris e Chlamydomonas angulosa (Hutchinson T et al, Environ. Sci. Res., 1980)

ACETONE

LC50 - for Fish	7163 mg/l/96h Pimephales promelas (equivalent or similar to OECD 203)
EC50 - for Crustacea	8800 mg/l/48h Daphnia pulex (Adema, D.M.M. (1978) Hydrobiologia)
EC50 - for Algae / Aquatic Plants	530 mg/l/192h Microcystis aeruginosa (DIN 38412)

12.2. Persistence and degradability

REACTION MASS OF BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL) SEBACATE AND METHYL 1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL SEBACATE
Inherently degradable, 38% in 28 days (Oecd 301 e)
2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL
Not rapidly degradable, 8% in 28 days (OECD 301 b).
2,3-EPOXYPROPYL NEODECANOATE
Not rapidly degradable, 7-8% in 28 days (OECD 301 D)
HEXAMETHYLENE DIISOCYANATE, OLIGOMERS
not rapidly degradable, 1% in 28 days (EU C.4-E)
AROMATIC HYDROCARBONS, C9
Rapidly degradable, 78% in 28 days (OECD 301 F)
DIMETHYL ETHER
NOT readly biodegradable: 5% in 28d (OECD 301 D)
N-BUTYL ACETATE
Rapidly degradable, 83% in 28 days (OECD 301 D)
XYLENE
Rapidly degradable, 98% O2 consumed in 28 days (OECD 301 F)
ETHYLBENZENE
Rapidly degradable, 80% in 28 days (ISO 14593-CO2-Headspace Test)
2-METHOXY-1-METHYLETHYL ACETATE
Rapidly degradable, 83% in 28 days (OECD 301 F)
TOLUENE
Rapidly degradable, 86% in 20 days (APHA method no 219 (1971))
ACETONE
Rapidly degradable, 90.2% in 28 days (equivalent or similar to OECD 301 B)

12.3. Bioaccumulative potential

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL
Biochoncentration factor (BCF): 570-1800 (OECD 305).

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

Partition coefficient: n-octanol/water	2,37 Log Kow (OECD 107)

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

Partition coefficient: n-octanol/water	> 6,5 a 23°C, pH 6,4 (OECD 117)

HEXAMETHYLENE DIISOCYANATE, OLIGOMERS

Partition coefficient: n-octanol/water	9,81 a 20 °C (calcolo KOWWIN v1.67 © 2000 U.S. Environmental Protection Agency)
BCF	141 (BCF Program v3.01 in EPI-Suite software)

DIMETHYL ETHER

Partition coefficient: n-octanol/water	0,07 ((Q)SAR- KOWWIN v1.67)

N-BUTYL ACETATE

Partition coefficient: n-octanol/water	2,3 mg/l a 25°C (OECD117)

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: n-octanol/water	1,2 mg/l (equivalent or similar to OECD 117)

TOLUENE

Partition coefficient: n-octanol/water	2,73 Log Kow (Hansch C et al, American Chemical Societ, 1995)
BCF	90 (Freitag D et al, Chemosphere, 1985)

ACETONE

Partition coefficient: n-octanol/water	-0,23 Log Kow (Lin S.-T et al, nd. Eng. Chem. Res., 1999)
BCF	3 (EPIWIN v3.20)

12.4. Mobility in soil

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL
It is strongly absorbed by organic material.
Log Koc: 5.46 (according to the Cosmotherm model; Q-Sar).

12.5. Results of PBT and vPvB assessment

vPvB substances contained:

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

PBT substances contained:

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

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. (Directive 2008/98/EC and subsequent amendments and adjustments and related national transpositions).
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
The legal responsibility for disposal is the producer / holder of the waste.
To this mixture different CER codes could be applied (European Waste Code) based on the specific circumstances that generated the waste, possible alterations and / or possible contamination.

The product as such, contained in the original packaging, or decanted in an appropriate container for the purpose of disposal, or no longer usable (for example following an accidental spill), must be classified with a CER code that is compatible with the description of the use indicated in section 1.2.

The suitable final destination of the waste must be evaluated by the manufacturer on the basis of the chemical-physical characteristics of the waste, the compatibility with the authorized facility to which it will be given for recovery, and the definitive treatment or disposal according to the procedures established by current regulations .
Disposal through wastewater discharge is not permitted.

For hazardous substances registered according to Regulation EC 1907/2006 (REACH), for which a chemical safety report has been drawn up, refer to the specific information contained in the exposure scenarios attached to this SDS.

CONTAMINATED PACKAGING
Contaminated packaging must be sent, properly labeled, to recovery or disposal in compliance with national waste management regulations and must be classified with the following CER code:

15 01 10*: packaging containing residues of or contaminated by dangerous substances

SECTION 14. Transport information

14.1. UN number or ID 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: -- Special provision: -	Limited Quantities: 1 L	Tunnel restriction code: (D)
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 provision:	A145, A167, A802	

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: P3a

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

Product

Point	*3. Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/ 2008:* *(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;* *(b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10;* *(c) hazard class 4.1;* *(d) hazard class 5.1.*
Point	*40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.*

Contained substance

Point	75 *Substances falling within one or more of the following points:* *(a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008:* *— carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation* *— reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B* *— skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2* *— serious eye damage category 1 or eye irritant category 2 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council (*)* *(c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex* *(d) substances listed in Appendix 13 to this Annex. The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.*

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

ACETONE (CAS 67-64-1): ANNEX II - Precursors of regulated explosives.
This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions and significant disappearances and thefts must be reported to the competent national contact point:

IRELAND:
An Garda Síochána
(EN: National Police Service)
Phone: +353 1 6661782 (office hours); or
Garda 24hr Confidential Line: 1800 666 111; or
999 or 112 (in the event of a serious or imminent threat)
Email: Liaisonandprotection_DV@garda.ie

MALTA:
Competition and Consumer Affairs Authority
Tel. (+356) 23952000
Fax : (+356) 21242420
E-mail: info@mccaa.org.mt

UNITED KINGDOM - GREAT BRITAIN
Metropolitan Police Service
Tel. 0207 230 9066
Tel. 0207 230 8850
E-mail: Chemical.Reporting@Met.Police.UK

UNITED KINGDOM - NORTHERN IRELAND
Police Service of Northern Ireland
Tel. 0800 789 321
E-mail: Chemical.reporting@psni.pnn.police.uk

Substances in Candidate List (Art. 59 REACH)

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

REACH Reg.: 01-2119955688-17-xxxx

Substances subject to authorisation (Annex XIV REACH)

2- (2H-BENZOTRIAZOL-2-YL) -4,6-DITERTPENTYLPHENOL

REACH Reg.: 01-2119955688-17-xxxx

Sunset Date: 27/11/2023

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

VOC (Directive 2004/42/EC) :

Special finishes.

VOC given in g/litre of product in a ready-to-use condition :	691,92
Limit value:	840,00

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

Procedure used to derive the classification according to Regulation (EC) 1272/2008 (CLP) in relation to mixtures:

Classification of the mixture according to Regulation (EC) n. 1272/2008		Classification procedure
Aerosol, category 1	H222	Expert judgment
	H229	Expert judgment
Acute toxicity, category 4	H332	Calculation method
Aspiration hazard, category 1	H304	Calculation method
Eye irritation, category 2	H319	Calculation method
Skin irritation, category 2	H315	Calculation method
Specific target organ toxicity - single exposure, category 3	H335	Calculation method
Skin sensitization, category 1A	H317	Calculation method
Specific target organ toxicity - single exposure, category 3	H336	Calculation method
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Calculation method

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 (Comp.)	Compressed gas
Muta. 2	Germ cell mutagenicity, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
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 explode if heated.
H341	Suspected of causing genetic defects.
H361d	Suspected of damaging the unborn child.

H361f	Suspected of damaging fertility.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
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%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for the recipient of the Safety Data Sheet (SDS):

The recipient of this SDS shall make sure of reading and understanding the information included by all people who handle, store, use, or otherwise come into contact in any way with the substance or mixture to which this SDS is referred to. In particular, the recipient shall provide adequate training to the personnel for the use of hazardous substances and/or mixtures. The recipient shall verify the suitability and completeness of the provided information according to the specific use of the substance or mixture.

However, the substance or mixture referred to by this SDS shall not be used for uses other than those specified in Section 1. The Supplier don't assume responsibility for improper uses. Since the use of the product does not fall under the direct control of the Supplier, the user shall, under his own responsibility, fulfill national and EU regulations concerning health and safety.

The information included in this SDS are provided in good faith and are based on the current state of scientific and technical knowledge, at the revision date indicated, available to the Supplier indicated in Section 1 of this SDS. It shall not be meant that the SDS is a guarantee of any specific property of the substance or mixture. The information concern only to the substance or mixture specifically designated in Section 1 and it could not be valid for the substance or mixture used in combination with other materials or in any process not specified in the text.

This version of the SDS substitutes all the previous versions.

Modifications to the previous revision.
Changes were made to the following sections:
01 / 02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.