



## Safety Data Sheet

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

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

#### 1.1. Product identifier

Code: LDOI004X  
Product name: LED HARD WAX OIL on-site OP

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

Identified Uses	Industrial	Professional	Consumer
Roller laser	✓	-	-
Uses Advised Against			
processes that provide for the use of incompatible substances			
See section 10			

#### 1.3. Details of the supplier of the safety data sheet

Name: CHIMIVER PANSERI S.p.A.  
Full address: Via Bergamo 1401  
District and Country: 24030 PONTIDA (BG)  
ITALIA  
Tel.: +39 035 795031  
Fax: +39 035 795556  
e-mail address of the competent person responsible for the Safety Data Sheet: msds@chimiver.com

#### 1.4. Emergency telephone number

For urgent inquiries refer to

**Poison centers:**  
**Cyprus-1401**

**Denmark- Danish Poison Center (Giftlinjen): +45 8212 1212**

**Estonia- Estonian Poisoning Information 16662**

**Finland- Tel. 09 471 977 Or +358 09 4711**

**Latvia- 1. Valsts ugunsdzēsības un glābšanas dienests, phone number: 112.  
2. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473**

**Lithuania- Apsinuodijimų informacijos biuras"visto paraž: tel. +370 (5) 236 2052**

**Malta- 112**

**Belgium  
Belgian Poisono Centre number: 070 245 245  
Available 24h/24**

### 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:

Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

### SECTION 2. Hazards identification ... / >>

#### 2.2. Label elements

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

Hazard pictograms:



Signal words: Danger

Hazard statements:

**H318** Causes serious eye damage.  
**H315** Causes skin irritation.  
**H317** May cause an allergic skin reaction.  
**H412** Harmful to aquatic life with long lasting effects.

Precautionary statements:

**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P280** Wear protective gloves / eye protection / face protection.  
**P310** Immediately call a POISON CENTER or doctor.  
**P261** Avoid breathing dust / fume / gas / mist / vapours / spray.  
**P264** Wash thoroughly with water after use.

**Contains:** OXYBIS(METHYL-2,1-ETHANEDIYL) DIACRYLATE  
DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE  
HEXANE-1,6-DIOL DIACRYLATE  
GLYCERYL PROPOXY TRIACRYLATE  
TRIMETHYLOLPROPANE TRIACRYLATE

Product not intended for uses provided for by Directive 2004/42/EC.

#### 2.3. Other hazards

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

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

### SECTION 3. Composition/information on ingredients

#### 3.1. Substances

Information not relevant

#### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>OXYBIS(METHYL-2,1-ETHANEDIYL) DIACRYLATE</b>		
INDEX	$30 \leq x < 50$	<b>Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317</b>
EC	260-754-3	
CAS	57472-68-1	
REACH Reg.	01-2119484629-21-XXXX	

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

#### DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE

INDEX 2,5 ≤ x < 3 Repr. 2 H361f, Skin Sens. 1 H317, Aquatic Chronic 2 H411

EC 278-355-8

CAS 75980-60-8

REACH Reg. 01-2119972295-29-XXXX

#### 2-ISOPROPYLTHIOXANTHONE

INDEX 1 ≤ x < 2 STOT RE 2 H373

EC 226-827-9

CAS 5495-84-1

REACH Reg. 01-2120769513-49-0003

#### 2-METHOXY-1-METHYLETHYL ACETATE

INDEX 607-195-00-7 0,5 ≤ x < 1 Flam. Liq. 3 H226, STOT SE 3 H336

EC 203-603-9

CAS 108-65-6

REACH Reg. 01-2119475791-29-XXXX

#### TRIMETHYLOLPROPANE TRIACRYLATE

INDEX 607-111-00-9 0,25 ≤ x < 0,5 Carc. 2 H351, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1, Classification note according to Annex VI to the CLP Regulation: D

EC 239-701-3

CAS 15625-89-5

REACH Reg. 01-2119489896-XXXX

#### GLYCERYL PROPOXY TRIACRYLATE

INDEX 0 ≤ x < 0,5 Eye Irrit. 2 H319, Skin Sens. 1 H317

EC 500-114-5

CAS 52408-84-1

REACH Reg. 01-2119487948-12-XXXX

#### HEXANE-1,6-DIOL DIACRYLATE

INDEX 607-109-00-8 0 ≤ x < 0,5 Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: D

EC 235-921-9

CAS 13048-33-4

REACH Reg. 01-2119484737-22-XXXX

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

### SECTION 4. First aid measures

#### 4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

#### 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



## SECTION 5. Firefighting measures ... / >>

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF 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. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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

## SECTION 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

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

### 6.2. Environmental precautions

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

### 6.3. Methods and material for containment and cleaning up

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

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

### 6.4. Reference to other sections

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

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

#### 2-METHOXY-1-METHYLETHYL ACETATE

Store in an inert atmosphere, sheltered from moisture because it hydrolyses easily.

### 7.3. Specific end use(s)

Information not available

### SECTION 8. Exposure controls/personal protection

#### 8.1. Control parameters

Regulatory references:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58
ESP	España	Límites de exposición profesional para agentes químicos en España 2023
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France Décret n° 2021-1849 du 28 décembre 2021
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α΄ 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ "σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία"»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.

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

#### 2-METHOXY-1-METHYLETHYL ACETATE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
TLV	BGR	275	50	550	100	SKIN
TLV	CZE	270	49,14	550	100,1	SKIN
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
VLA	ESP	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
TLV	GRC	275	50	550	100	
AK	HUN	275	50	550	100	
VLEP	ITA	275	50	550	100	SKIN
TLV	NOR	270	50			SKIN
TGG	NLD	550				
VLE	PRT	275	50	550	100	SKIN
NDS/NDSch	POL	260		520		SKIN
TLV	ROU	275	50	550	100	SKIN
NGV/KGV	SWE	275	50	550	100	SKIN
NPEL	SVK	275	50	550	100	SKIN
MV	SVN	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	SKIN
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	0,0635	mg/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value for water, intermittent release	6,35	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,29	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				36 mg/kg bw/d				
Inhalation			33 mg/kg	33 mg/m <sup>3</sup>	550 mg/m <sup>3</sup>	275 mg/m <sup>3</sup>	VND	275 mg/m <sup>3</sup>
Skin			VND	320 mg/kg			VND	796 mg/kg bw/d

#### HEXANE-1,6-DIOL DIACRYLATE

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,007	mg/l
Normal value in marine water	0,001	mg/l
Normal value for fresh water sediment	0,493	mg/kg/d
Normal value for marine water sediment	0,049	mg/kg/d
Normal value for water, intermittent release	VND	
Normal value for marine water, intermittent release	VND	
Normal value for fresh water, intermittent release	VND	
Normal value of STP microorganisms	2,7	mg/l
Normal value for the food chain (secondary poisoning)	NEA	
Normal value for the terrestrial compartment	0,094	mg/kg/d
Normal value for the atmosphere	NPI	

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral						NPI		2,1 mg/kg bw/d
Inhalation	MED	NPI	MED	7,2 mg/m <sup>3</sup>	LOW	NPI	LOW	24,5 mg/m <sup>3</sup>
Skin	MED	NPI	MED	1,66 mg/kg bw/d	MED	NPI	MED	2,77 mg/kg bw/d

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

**TRIMETHYLOLPROPANE TRIACRYLATE**

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	0,00147	mg/l
Normal value in marine water	0,00014	mg/l
	7	
Normal value for fresh water sediment	62	mg/kg
Normal value for marine water sediment	0,00062	mg/kg
Normal value for water, intermittent release	0,0147	mg/l
Normal value of STP microorganisms	6,25	mg/l
Normal value for the terrestrial compartment	0,043	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1,39 mg/kg/d				
Inhalation			VND	0,49 mg/m3			VND	16,2 mg/m3
Skin			VND	0,48 mg/kg/d			VND	0,8 mg/kg/d

**DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE**

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	0,00353	mg/l
Normal value in marine water	0,00035	mg/l
	3	
Normal value for fresh water sediment	0,29	mg/kg
Normal value for marine water sediment	0,0029	mg/kg
Normal value for water, intermittent release	0,0353	mg/l
Normal value for the terrestrial compartment	0,0557	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	3,5 mg/m3
Skin							VND	1 mg/kg p.c.

**OXYBIS(METHYL-2,1-ETHANEDIYL) DIACRYLATE**

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	0,003	mg/l
Normal value in marine water	0	mg/l
Normal value for fresh water sediment	0,009	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,001	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	2,08 mg/kg bw/d				
Inhalation			VND	7,24 mg/m3			VND	24,48 mg/m3
Skin			VND	1,66 mg/kg bw/d			VND	2,77 mg/kg bw/d

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

#### GLYCERYL PROPOXY TRIACRYLATE

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,006	mg/l
Normal value in marine water	0,001	mg/l
Normal value for fresh water sediment	0,078	mg/kg
Normal value for marine water sediment	0,008	mg/kg
Normal value for water, intermittent release	0,0574	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	5,6	mg/kg
Normal value for the terrestrial compartment	0,012	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,52 mg/kg/d				
Inhalation				0,9 mg/m3				3,7 mg/m3
Skin				0,52 mg/kg/d				1,04 mg/kg/d

#### 2-ISOPROPYLTHIOXANTHONE

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0	mg/l
Normal value in marine water	0	mg/l
Normal value for fresh water sediment	0,013	mg/kg/d
Normal value for marine water sediment	0,001	mg/kg/d
Normal value of STP microorganisms	100	mg/l
Normal value for the food chain (secondary poisoning)	0,333	mg/kg
Normal value for the terrestrial compartment	0,003	mg/kg/d

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation								0,73 mg/m3
Skin								0,42 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.

### 8.2. Exposure controls

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

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

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

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves.

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

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

#### SKIN PROTECTION

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

#### EYE PROTECTION

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

#### RESPIRATORY PROTECTION

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

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an



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

emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS

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

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

### SECTION 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	white	
Odour	characteristic	
Melting point / freezing point	not available	Reason for missing data:Date not available
Initial boiling point	> 35 °C	
Flammability	not available	Reason for missing data:Date not available
Lower explosive limit	not available	Reason for missing data:Date not available
Upper explosive limit	not available	Reason for missing data:Date not available
Flash point	> 60 °C	
Auto-ignition temperature	not available	Reason for missing data:Date not available
Decomposition temperature	not available	Reason for missing data:Date not available
pH	not available	Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Kinematic viscosity	> 120 mm <sup>2</sup> /s	Temperature: 20 °C
Solubility	Partially soluble in solvent	
Partition coefficient: n-octanol/water	not available	Reason for missing data:Date not available
Vapour pressure	not available	Reason for missing data:Date not available
Density and/or relative density	1,07 kg/l	
Relative vapour density	not available	Reason for missing data:Date not available
Particle characteristics	not applicable	

#### 9.2. Other information

##### 9.2.1. Information with regard to physical hazard classes

Information not available

##### 9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	0,65 % - 7,00	g/litre
VOC (volatile carbon)	0,36 % - 3,81	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.

##### 2-METHOXY-1-METHYLETHYL ACETATE

Stable in normal conditions of use and storage.

With the air it may slowly develop peroxides that explode with an increase in temperature.

#### 10.2. Chemical stability

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

#### 10.3. Possibility of hazardous reactions

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

##### 2-METHOXY-1-METHYLETHYL ACETATE

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

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

### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

#### 2-METHOXY-1-METHYLETHYL ACETATE

Avoid exposure to: high temperatures.

### 10.5. Incompatible materials

#### 2-METHOXY-1-METHYLETHYL ACETATE

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

#### 2-ISOPROPYLTHIOXANTHONE

Avoid contact with: strong oxidising agents, strong reducing agents, strong acids, strong alkalis.

### 10.6. Hazardous decomposition products

#### 2-METHOXY-1-METHYLETHYL ACETATE

Develops: carbon oxides.

## 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

##### 2-METHOXY-1-METHYLETHYL ACETATE

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

#### Information on likely routes of exposure

##### 2-METHOXY-1-METHYLETHYL ACETATE

WORKERS: inhalation; contact with the skin.

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

##### 2-METHOXY-1-METHYLETHYL ACETATE

Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies.

Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

#### Interactive effects

Information not available

#### ACUTE TOXICITY

ATE (Inhalation) of the mixture:

Not classified (no significant component)

ATE (Oral) of the mixture:

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

##### 2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Dermal):

> 5000 mg/kg bw/day Rabbit

LD50 (Oral):

> 5000 mg/kg bw Rat

LC50 (Inhalation vapours):

> 2000 ppm/3h Rat

##### HEXANE-1,6-DIOL DIACRYLATE

LD50 (Dermal):

3650 mg/kg Rabbit OECD Guideline 402

LD50 (Oral):

> 5000 mg/kg Rat OECD Guideline 401

##### TRIMETHYLOLPROPANE TRIACRYLATE

LD50 (Dermal):

6300 mg/kg Rat

LD50 (Oral):

5200 mg/kg Rat

### SECTION 11. Toxicological information ... / >>

DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE  
LD50 (Dermal): > 2000 mg/kg Ratto  
LD50 (Oral): > 5000 mg/kg Ratto

OXYBIS(METHYL-2,1-ETHANEDIYL) DIACRYLATE  
LD50 (Dermal): > 2000 mg/kg Rabbit  
LD50 (Oral): 4270 mg/kg Rat (male)  
LC50 (Inhalation vapours): 0,41 mg/l/7h Rat

GLYCERYL PROPOXY TRIACRYLATE  
LD50 (Dermal): > 2000 mg/kg Coniglio  
LD50 (Oral): > 2000 mg/kg Ratto

2-ISOPROPYLTHIOXANTHONE  
LD50 (Dermal): > 2000 mg/kg Ratto  
LD50 (Oral): > 2000 mg/kg Ratto

#### SKIN CORROSION / IRRITATION

Causes skin irritation

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

#### RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

#### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

### 11.2. Information on other hazards

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

### SECTION 12. Ecological information

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

2-METHOXY-1-METHYLETHYL ACETATE  
LC50 - for Fish > 100 mg/l/96h Method OECD 203  
EC50 - for Crustacea > 500 mg/l/48h Daphnia magna  
Chronic NOEC for Fish 47,5 mg/l 14gg Medaka  
Chronic NOEC for Crustacea > 100 mg/l Daphnia magna

### SECTION 12. Ecological information ... / >>

<b>HEXANE-1,6-DIOL DIACRYLATE</b>	
LC50 - for Fish	0,38 mg/l/96h <i>Oryzias latipes</i>
EC50 - for Crustacea	2,7 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	2,33 mg/l/72h <i>Selenastrum capricornutum</i>
<b>TRIMETHYLOLPROPANE TRIACRYLATE</b>	
LC50 - for Fish	2,2 mg/l/96h <i>Leuciscus idus</i>
EC50 - for Crustacea	19,9 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	4,9 mg/l/72h <i>Scenedesmus subspicatus</i>
<b>DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE</b>	
LC50 - for Fish	6,53 mg/l/96h <i>Oryzias latipes</i>
EC50 - for Crustacea	3,53 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	> 2,01 mg/l/72h <i>Pseudokirchnerella subcapitata</i>
<b>OXYBIS(METHYL-2,1-ETHANEDIYL) DIACRYLATE</b>	
LC50 - for Fish	3,42 mg/l/96h <i>Leuciscus idus</i>
EC50 - for Crustacea	22,3 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	16,7 mg/l/72h <i>Desmodesmus subspicatus</i>
Chronic NOEC for Fish	1 mg/l
<b>GLYCERYL PROPOXY TRIACRYLATE</b>	
LC50 - for Fish	5,74 mg/l/96h Zebrafish
EC50 - for Crustacea	91,4 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	12,2 mg/l/72h <i>Desmodesmus subspicatus</i>
Chronic NOEC for Fish	1,59 mg/l Zebrafish
Chronic NOEC for Crustacea	25 mg/l <i>Daphnia magna</i>
Chronic NOEC for Algae / Aquatic Plants	0,921 mg/l <i>Desmodesmus subspicatus</i>

#### 12.2. Persistence and degradability

<b>2-METHOXY-1-METHYLETHYL ACETATE</b>	
Solubility in water	> 10000 mg/l
Rapidly degradable	
<b>HEXANE-1,6-DIOL DIACRYLATE</b>	
Rapidly degradable	
<b>TRIMETHYLOLPROPANE TRIACRYLATE</b>	
Solubility in water	100 - 1000 mg/l
Rapidly degradable	

#### 12.3. Bioaccumulative potential

<b>2-METHOXY-1-METHYLETHYL ACETATE</b>	
Partition coefficient: n-octanol/water	1,2
BCF	100
<b>HEXANE-1,6-DIOL DIACRYLATE</b>	
Partition coefficient: n-octanol/water	2,81
<b>TRIMETHYLOLPROPANE TRIACRYLATE</b>	
Partition coefficient: n-octanol/water	0,67

#### 12.4. Mobility in soil

Information not available

#### 12.5. Results of PBT and vPvB assessment

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

#### 12.6. Endocrine disrupting properties

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



## SECTION 12. Ecological information ... / >>

### 12.7. Other adverse effects

Information not available

## SECTION 13. Disposal considerations

### 13.1. Waste treatment methods

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

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

CONTAMINATED PACKAGING

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

## SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### 14.1. UN number or ID number

not applicable

### 14.2. UN proper shipping name

not applicable

### 14.3. Transport hazard class(es)

not applicable

### 14.4. Packing group

not applicable

### 14.5. Environmental hazards

not applicable

### 14.6. Special precautions for user

not applicable

### 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:                                  None

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

Product

Point 3 - 40

Contained substance

Point	75	HEXANE-1,6-DIOL DIACRYLATE REACH Reg.: 01-2119484737-22-XXXX
Point	75	TRIMETHYLOLPROPANE TRIACRYLATE REACH Reg.: 01-2119489896-XXXX

**SECTION 15. Regulatory information ... / >>**

Point	75	2-METHOXYPROPYL ACETATE
Point	75	2,6-bis (1,1-dimethylethyl) -4- (phenylmethylene) cyclo-hexa-2,5-dien-1-one REACH Reg.: 01-2119928020-54

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

Substances in Candidate List (Art. 59 REACH)  
DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE  
REACH Reg.: 01-2119972295-29-XXXX

Substances subject to authorisation (Annex XIV REACH)  
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:  
None

Substances subject to the Rotterdam Convention:  
None

Substances subject to the Stockholm Convention:  
None

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

**15.2. Chemical safety assessment**

A chemical safety assessment has 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:

<b>Flam. Liq. 3</b>	Flammable liquid, category 3
<b>Carc. 2</b>	Carcinogenicity, category 2
<b>Repr. 2</b>	Reproductive toxicity, category 2
<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H226</b>	Flammable liquid and vapour.
<b>H351</b>	Suspected of causing cancer.
<b>H361f</b>	Suspected of damaging fertility.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.

**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)

### SECTION 16. Other information ... / >>

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

#### GENERAL BIBLIOGRAPHY

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

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.  
This document must not be regarded as a guarantee on any specific product property.  
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current



**SECTION 16. Other information ... / >>**

health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.  
Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

03 / 16.