



# Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878

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

### 1.1. Product identifier

Code: **U01310**  
Product name **PERFORMA DUE DUE**

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

Intended use **Emulsifiable metalworking fluid mechanical machining.**  
Uses advised against: **Different uses than those intended.**

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

Name **CENTRO DISTRIBUZIONE UTENSILI SCPA**  
Full address **Via delle Gerole, 19**  
District and Country **20867 CAPONAGO (MB)**  
**ITALY**tel. **+39 02 95746081**fax. **+ 39 02 95745182**

e-mail address of the competent person

responsible for the Safety Data Sheet  
Supplier:**info@cdu.net****CENTRO DISTRIBUZIONE UTENSILI SCPA**

### 1.4. Emergency telephone number

For urgent inquiries refer to

**CENTRO DISTRIBUZIONE UTENSILI SCPA****+39 02 95746081 (Technical support - Office hour 8.30-13.00 – 14.00-17.30)**

## 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:

Eye irritation, category 2	H319	Causes serious eye irritation.
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: **WARNING**

Hazard statements:

<b>H319</b>	Causes serious eye irritation.
<b>H412</b>	Harmful to aquatic life with long lasting effects.

Precautionary statements:



**P280** Wear eye protection / face protection.  
**P337+P313** If eye irritation persists: Get medical advice / attention.  
**P273** Avoid release to the environment.

### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.  
The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

Identification	X = Conc. %	Classification 1272/2008 (CLP)
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#### DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC

CAS 64742-53-6	$44 \leq x < 54$	Asp. Tox. 1 H304, Classification note according to Annex VI to the CLP Regulation: L. Substance with extract content in DMSO of less than 3% by weight, determined using the IP 346 method.
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EC 265-156-6

INDEX 649-466-00-2

REACH Reg. 01-2119480375-34

#### SULFONIC ACIDS, PETROLEUM, SODIUM SALTS

CAS 68608-26-4	$5,00 \leq x \leq 8,01$	Eye Irrit. 2 H319
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EC 271-781-5

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REACH Reg. 01-2119527859-22

#### 2-METHYLPENTANE-2,4-DIOL

CAS 107-41-5	$2,50 \leq x < 3,79$	Eye Irrit. 2 H319, Skin Irrit. 2 H315
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EC 203-489-0

INDEX 603-053-00-3

REACH Reg. 01-2119539582-35

#### 2-(2-BUTOXYETHOXY)ETHANOL

CAS 112-34-5	$0,80 \leq x \leq 1,80$	Eye Irrit. 2 H319
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EC 203-961-6

INDEX 603-096-00-8

REACH Reg. 01-2119475104-44

#### ALCOHOLS, C12-14, ETHOXYLATED, CARBOXYMETHYLATED

CAS 220622-96-8	$0,30 \leq x < 1,30$	Eye Dam. 1 H318
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EC 931-957-0

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REACH Reg. polymer

#### (Z)-N-METHYL-N-(1-OXO-9-OCTADECENYL)GLYCINE

CAS 110-25-8	$0,50 \leq x < 0,77$	Acute Tox. 4 H332, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1 ATE Inhalation vapours: 11 mg/l
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EC 203-749-3

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REACH Reg. 01-2119488991-20

#### ETHYLENE GLYCOL

CAS 107-21-1	$0,10 \leq x \leq 0,124$	Acute Tox. 4 H302, STOT RE 2 H373
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EC 203-473-3

LD50 Oral: >1600 mg/kg

INDEX 603-027-00-1



REACH Reg. 01-2119456816-28

**PYRIDINE-2-THIOL 1-OXIDE, SODIUM SALT**

CAS 3811-73-2

0,025 ≤ x ≤ 0,049

Acute Tox. 3 H311, Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=10

EC 223-296-5

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ATE Oral: 1250 mg/kg, ATE Dermal: 300 mg/kg, ATE Inhalation mists/powders: 1,25 mg/l/4h

REACH Reg. biocide

Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346.

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

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

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

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

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

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

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

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

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

Information for the doctor: symptomatically treatment.

**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

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.





**2-METHYLPENTANE-2,4-DIOL**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	49	10	98	20	
TLV	DNK			125 (C)	25 (C)	
VLA	ESP			123	25	
VLEP	FRA			125	25	
HTP	FIN	120	25	200	40	
NDS/NDSch	POL	50		100		INHAL
WEL	GBR	123	25	123	25	
TLV-ACGIH			25		50	Note (V) Eye and URT irr

**Predicted no-effect concentration - PNEC**

Normal value in fresh water		0,429	mg/l
Normal value in marine water		0,0429	mg/l
Normal value for fresh water sediment		1,59	mg/kg/d
Normal value for marine water sediment		0,159	mg/kg/d
Normal value for water, intermittent release		4,29	mg/l
Normal value of STP microorganisms		20	mg/l
Normal value for the terrestrial compartment		0,066	mg/kg/d

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

Effects on consumers

Effects on workers

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				1,5 mg/kg bw/d				
Inhalation	49 mg/m3			7,8 mg/m3				44,4 mg/m3
Skin				15 mg/kg bw/d				42 mg/kg bw/d

**2-(2-BUTOXYETHOXY)ETHANOL**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	67	10	100	15	INHAL aerosol and vapour
MAK	DEU	67	10	100,5	15	Hinweis
TLV	DNK	68	10	20	136	
VLA	ESP	67,5	10	101,2	15	
VLEP	FRA	68	10	101,2	15	
HTP	FIN	68	10			
VLEP	ITA	67,5	10	101,2	15	
TGG	NLD	50		100		SKIN
VLE	PRT	67,5	10	101,2	15	
NDS/NDSch	POL	67		100		



TLV	ROU	67,5	10	101,2	15				
WEL	GBR	67,5	10	101,2	15				
OEL	EU	67,5	10	101,2	15				
Predicted no-effect concentration - PNEC									
Normal value in fresh water				1,1	mg/l				
Normal value in marine water				0,11	mg/l				
Normal value for fresh water sediment				4,4	mg/kg				
Normal value for marine water sediment				0,44	mg/kg				
Normal value of STP microorganisms				200	mg/l				
Normal value for the terrestrial compartment				0,32	mg/kg				
<b>Health - Derived no-effect level - DNEL / DMEL</b>									
Effects on consumers					Effects on workers				
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic	
Oral				5 mg/kg bw/d					
Inhalation	60,7 mg/m3		40,5 mg/m3	40,5 mg/m3	101,2 mg/m3		67,5 mg/m3	67,5 mg/m3	
Skin				50 mg/kg bw/d				83 mg/kg bw/d	
<b>(Z)-N-METHYL-N-(1-OXO-9-OCTADECENYL)GLYCINE</b>									
<b>Threshold Limit Value</b>									
Type	Country	TWA/8h		STEL/15min		Remarks / Observations			
		mg/m3	ppm	mg/m3	ppm				
AGW	DEU	0,05		0,1		INHAL			
MAK	DEU	0,05		0,1		INHAL			
<b>ETHYLENE GLYCOL</b>									
<b>Threshold Limit Value</b>									
Type	Country	TWA/8h		STEL/15min		Remarks / Observations			
		mg/m3	ppm	mg/m3	ppm				
AGW	DEU	26	10	52	20	SKIN			
MAK	DEU	26	10	52	20	SKIN			
TLV	DNK	26	10			SKIN		E	
VLA	ESP	52	20	104	40	SKIN			
VLEP	FRA	52	20	104	40	SKIN			
HTP	FIN	50	20	100	40	SKIN			
VLEP	ITA	52	20	104	40	SKIN			
VLE	PRT	52	20	104	40	SKIN			
NDS/NDSch	POL	15		50		SKIN			
TLV	ROU	52	20	104	40	SKIN			
WEL	GBR	52	20	104	40	SKIN			
OEL	EU	52	20	104	40	SKIN			
TLV-ACGIH			25		50				
TLV-ACGIH				10		INHAL			
Predicted no-effect concentration - PNEC									
Normal value in fresh water				10	mg/l				



Normal value in marine water	1	mg/l
Normal value for fresh water sediment	37	mg/kg
Normal value for marine water sediment	3,7	mg/kg
Normal value for water, intermittent release	10	mg/l
Normal value of STP microorganisms	199,5	mg/l
Normal value for the terrestrial compartment	1,53	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			7 mg/m3				35 mg/m3	
Skin				53 mg/kg				106 mg/kg

**PYRIDINE-2-THIOL 1-OXIDE, SODIUM SALT****Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
AGW	DEU	0,2	0,4	INHAL
MAK	DEU	0,2	0,4	INHAL
TLV	DNK	1	2	SKIN
TLV-ACGIH		0,35		

## Legend:

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

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

**8.2. Exposure controls**

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

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

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

Provide an emergency shower with face and eye wash station.

**HAND PROTECTION**

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

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

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.

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

**ENVIRONMENTAL EXPOSURE CONTROLS**

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

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



## SECTION 9. Physical and chemical properties

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

Properties	Value
Appearance	clear liquid
Colour	amber
Odour	characteristic
Odour threshold	Not available
Melting point / freezing point	Not available
Initial boiling point	> 100 °C
Flammability	Not applicable
Lower explosive limit	Not applicable
Upper explosive limit	Not applicable
Flash point	> 125 °C
Auto-ignition temperature	Not available
Decomposition temperature	Not available
pH	9,20 – 9,60 (Sol. 5%)
Kinematic viscosity	>20,5 mm <sup>2</sup> /sec (40°C)
Solubility	emulsifiable in water
Partition coefficient: n-octanol/water	Not available
Vapour pressure	Not available
Density and/or relative density	0,94 – 0,96 kg/l (20°C)
Relative vapour density	Not available

### 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/EC)	3,84 %
Explosive properties	Not applicable

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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

#### ETHYLENE GLYCOL

In the air absorbs moisture. Decomposes at temperatures above 200°C/392°F.

### 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.

#### ETHYLENE GLYCOL

Risk of explosion on contact with: perchloric acid. May react dangerously with: chlorosulphuric acid, sodium hydroxide, sulphuric acid, phosphorus pentasulphide, chromium (III) oxide, chromyl chloride, potassium perchlorate, potassium dichromate, sodium peroxide, aluminium. Forms explosive





mixtures with: air.

#### 10.4. Conditions to avoid

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC

Avoid exposure to: heat, naked flames, direct sunlight, ignition sources.

2-(2-BUTOXYETHOXY)ETHANOL

Avoid exposure to: heat (long period), flames, ignition sources.

ETHYLENE GLYCOL

Avoid exposure to: sources of heat, naked flames.

#### 10.5. Incompatible materials

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC

Incompatible with: strong acids, strong bases, oxidising agents.

2-METHYLPENTANE-2,4-DIOL

Avoid contact with: strong oxidising agents, acids.

2-(2-BUTOXYETHOXY)ETHANOL

Incompatible with: strong acids, strong alkalis, strong oxidising agents.

#### 10.6. Hazardous decomposition products

2-METHYLPENTANE-2,4-DIOL

When heated to decomposition releases: carbon oxides, sulphur oxides.

2-(2-BUTOXYETHOXY)ETHANOL

When heated to decomposition releases: carbon oxides.

ETHYLENE GLYCOL

May develop: hydroxyacetaldehyde, glyoxal, acetaldehyde, methane, carbon monoxide, hydrogen.

## SECTION 11. Toxicological information

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

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

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

##### Metabolism, toxicokinetics, mechanism of action and other information

Information not available.

##### Information on likely routes of exposure

2-(2-BUTOXYETHOXY)ETHANOL

WORKERS: inhalation; contact with the skin.

ETHYLENE GLYCOL

WORKERS: inhalation; contact with the skin.

POPULATION: 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

2-(2-BUTOXYETHOXY)ETHANOL

May be absorbed by inhalation, ingestion and skin contact; is irritating for the skin and especially for the eyes. May cause damage to the spleen. At room temperature the danger of inhalation is unlikely, due to the low vapour pressure of the substance.

ETHYLENE GLYCOL

By ingestion it initially stimulates the central nervous system; then a phase of depression takes over. Kidney damage can occur, with anuria and uremia. Symptoms of overexposure are: vomiting, drowsiness, difficulty breathing, convulsions. The lethal dose for humans is approximately 1.4 ml / kg.

##### Interactive effects

Information not available.

**PERFORMA DUE DUE****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)

**DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC**

LD50 (Oral): > 5000 mg/kg Rat (API 1986a)  
LD50 (Dermal): > 5000 mg/kg Rabbit (API 1982)  
LC50 (Inhalation vapours): > 5,53 mg/l/4h Rat (EMBSI 1988a)

**SULFONIC ACIDS, PETROLEUM, SODIUM SALTS**

LD50 (Oral): > 2000 mg/kg Rat

**2-(2-BUTOXYETHOXY)ETHANOL**

LD50 (Oral): 2410 mg/kg dw Male rat (OECD 401)  
LD50 (Dermal): 2764 mg/kg dw Rabbit (OECD 402)  
LC50 (Inhalation vapours): > 29 mg/l/2h Rat

**ALCOHOLS, C12-14, ETHOXYLATED, CARBOXYMETHYLATED**

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

**(Z)-N-METHYL-N-(1-OXO-9-OCTADECENYL)GLYCINE**

LD50 (Oral): > 5000 mg/kg Rat  
LC50 (Inhalation vapours): 1,8 mg/l/4h Rat  
ATE (Inhalation vapours): 11 mg/l estimate from table 3.1.2 of Annex I of the CLP  
(figure used for calculation of the acute toxicity estimate of the mixture)

**ETHYLENE GLYCOL**

LD50 (Oral): > 1600 mg/kg Human being  
LD50 (Dermal): > 3500 mg/kg Mouse  
LC50 (Inhalation vapours): > 2,5 mg/l/6h Rat

**PYRIDINE-2-THIOL 1-OXIDE, SODIUM SALT**

LD50 (Oral): 1250 mg/kg  
LD50 (Dermal): > 5000 mg/kg  
STA (Dermal): 300 mg/kg estimate from table 3.1.2 of Annex I of the CLP  
(figure used for calculation of the acute toxicity estimate of the mixture)  
  
LC50 (Inhalation mists/powders): 1,25 mg/l/4h Rat

**SKIN CORROSION / IRRITATION**

Does not meet the classification criteria for this hazard class.

**SERIOUS EYE DAMAGE / IRRITATION**

Causes serious eye irritation.

**RESPIRATORY OR SKIN SENSITISATION**

Does not meet the classification criteria for this hazard class.

**GERM CELL MUTAGENICITY**

Does not meet the classification criteria for this hazard class.

**CARCINOGENICITY**

Does not meet the classification criteria for this hazard class.

**ETHYLENE GLYCOL**

Available studies have not shown carcinogenic potential. In a 2-year carcinogenicity study conducted by the US National Toxicology Program (NTP), in which ethylene glycol was administered in feed, "no evidence of carcinogenic activity" was observed in male and female B6C3F1 mice. (NTP, 1993).

**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. Viscosity: >20,5 mm<sup>2</sup>/sec (40°C)

**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****DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC**

LL50 - for Fish	> 100 mg / l / 96h
LL50 - for Crustacea	> 10000 mg / l / 96h
NOEL - for Algae / Aquatic Plants	> 100 mg / l / 72h
NOEL - for Chronic Invertebrates	10 mg / l / 21d

**(Z)-N-METHYL-N-(1-OXO-9-OCTADECENYL)GLYCINE**

LC50 - for Fish	> 1 mg/l <i>Leuciscus idus</i>
EC50 - for Crustacea	0,43 mg/l/48h <i>Daphnia magna</i> (OECD 202)
EC50 - for Algae / Aquatic Plants	6,3 mg/l/72h <i>Desmodesmus subspicatus</i>

**2-(2-BUTOXYETHOXY)ETHANOL**

LC50 - for Fish	1300 mg/l/96h <i>Lepomis macrochirus</i> (OECD 203)
EC50 - for Crustacea	> 100 mg/l/48h <i>Daphnia magna</i> (OECD 202)

**ETHYLENE GLYCOL**

LC50 - for Fish	72860 mg/l/96h <i>Pimephales promelas</i>
EC50 - for Crustacea	> 100 mg/l/48h <i>Daphnia magna</i>
Chronic NOEC for Fish	15380 mg/l <i>Pimephales promelas</i>
Chronic NOEC for Crustacea	8590 mg/l <i>Ceriodaphnia sp.</i>

**2-METHYLPENTANE-2,4-DIOL**

LC50 - for Fish	8510 mg/l/96h <i>Gambusia affinis</i>
EC50 - for Algae / Aquatic Plants	429 mg/l/72h <i>Pseudokirchnerella subcapitata</i>

**ALCOHOLS, C12-14, ETHOXYLATED, CARBOXYMETHYLATED**

LC50 - for Fish	> 1 mg/l/96h
EC50 - for Crustacea	> 1 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 1 mg/l/72h



## PYRIDINE-2-THIOL 1-OXIDE, SODIUM SALT

LC50 - for Fish 0,00767 mg/l/96h (OECD 203)

EC50 - for Crustacea 0,022 mg/l/48h (OECD 202)

EC50 - for Algae / Aquatic Plants 0,46 mg/l/72h (OECD 201)

**12.2. Persistence and degradability**

## (Z)-N-METHYL-N-(1-OXO-9-OCTADECENYL)GLYCINE

Rapidly degradable 85% - 28d (OECD 301/B)

## DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC

Solubility in water Insoluble

Entirely degradable

## 2-(2-BUTOXYETHOXY)ETHANOL

Rapidly degradable 80-93% - 28d (OECD 301C)

## ETHYLENE GLYCOL

Solubility in water 1000 -10000 mg/l

Rapidly degradable

## 2-METHYLPENTANE-2,4-DIOL

Solubility in water &gt; 10000 mg/l

Rapidly degradable

## ALCOLI, C12-14, ETOSSILATI, CARBOSSIMETILATI

Rapidly degradable 60% - 28d (OECD TG 301/B)

## PYRIDINE-2-THIOL 1-OXIDE, SODIUM SALT

Rapidly degradable

**12.3. Bioaccumulative potential**

## 2-(2-BUTOXYETHOXY)ETHANOL

Partition coefficient: n-octanol/water 1 Log Kow

## ETHYLENE GLYCOL

Partition coefficient: n-octanol/water -1,36

## 2-METHYLPENTANE-2,4-DIOL

Partition coefficient: n-octanol/water &lt; -0,14

**12.4. Mobility in soil**

Information not available.

**12.5. Results of PBT and vPvB assessment**On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.**12.6. Endocrine disrupting properties**

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



environmental effects under evaluation.

#### 12.7. Other adverse effects

Information not available.

## SECTION 13. Disposal considerations

#### 13.1. Waste treatment methods

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

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

#### 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/EC: None.

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

Product

Point 3

Regulation (EC) No. 2019/1148 - on the marketing and use of explosives precursors

Not applicable.

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls

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

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 3: Severe hazard to waters.

**15.2. Chemical safety assessment**

A chemical safety assessment has not been performed for the mixture.

**SECTION 16. Other information**

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

<b>Acute Tox. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<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>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 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H311</b>	Toxic in contact with skin.
<b>H302</b>	Harmful if swallowed.
<b>H332</b>	Harmful if inhaled.
<b>H304</b>	May be fatal if swallowed and enters airways.
<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>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very 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 NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: 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).

Classification and procedure used to derive it in accordance with Regulation (EC) 1272/2008 (CLP) in relation to mixtures:

Classification according to Regulation (EC) No. 1272/2008	Classification procedure
Eye Irrit. 2 H319	Calculation method
Aquatic Chronic 3 H412	Calculation method

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

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

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

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

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

**Changes to previous review:**

The following sections were modified:

01 / 02 / 03 / 08 / 09 / 10 / 11 / 12 / 15 / 16.