

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

Product name	Mirror
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1.2 Relevant identified uses of the substance or mixture and uses advised against

Intended use

Neutral cross-linking silicone sealant for gluing mirrors.

1.3 Details of the supplier of the safety data sheet

Company name	TORGGLER S.R.L.
Full address	Via Prati Nuovi 9
Town	Marlengo
Postal code	39020
Province	BZ
Country	Italy
Phone number	+39 0473 282400
Fax	+39 0473 282501
e-mail address of the competent person responsible for the Safety Data Sheet	reach@torggler.com

1.4 Emergency telephone number

For urgent inquiries refer to	+39 348 662 70 93 (08.00 - 17.30)
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Section 2 Hazards identification

2.1 Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

However, since the product contains hazardous substances in concentrations such as to be declared in section 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2020/878.

Hazard classification

None

2.2 Label elements

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

Hazard pictograms

None

Signal word

None

Hazard statements

None

Precautionary statements

None

Section 2

Supplementary hazard statements

EUH210 Safety data sheet available on request.

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

Mixture of polydimethylsiloxanes, charges and alcoxy crosslinkers.

3.2 Mixtures

2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime

Concentration	$1.95 \leq x < 3.04 \%$
CAS number	58190-62-8
Registration Number	01-2120006148-66-xxxx
Hazard classification	- Acute Tox. 4; H302 - Eye Irrit. 2; H319
LD50 (Oral):	1,000 mg/kg

2-Pentanone-methylsilylidine-trioxyme

Concentration	$1.88 \leq x < 2.93 \%$
CAS number	37859-55-5
Registration Number	01-2120004323-76-xxxx
Hazard classification	- Acute Tox. 4; H302 - Eye Irrit. 2; H319
LD50 (Oral):	1,234 mg/kg

TOLUENE

Concentration	$0.0116 \leq x < 0.05 \%$
CAS number	108-88-3
EC number	203-625-9
INDEX number	601-021-00-3
Hazard classification	- Flam. Liq. 2; H225 - Asp. Tox. 1; H304 - Skin Irrit. 2; H315 - STOT SE 3; H336 - Repr. 2; H361d - STOT RE 2; H373

Substance with a community workplace exposure limit.

TOLUENE

Concentration	$0.0052 \leq x < 0.0228 \%$
CAS number	108-88-3
EC number	203-625-9
INDEX number	601-021-00-3
Registration Number	01-2119471310-51-xxxx
Hazard classification	- Flam. Liq. 2; H225 - Asp. Tox. 1; H304 - Skin Irrit. 2; H315 - STOT SE 3; H336 - Repr. 2; H361d - STOT RE 2; H373 - Aquatic Chronic 3; H412

Substance with a community workplace exposure limit.

Section 3

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

No effects requiring implementation of special first aid measures are expected. The following information represents practical indications of correct behaviour in the event of contact with a chemical product, even if not hazardous.

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the accident scene. Get medical advice/attention.

Rescuers protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

If symptoms occur, whether acute or delayed, consult a doctor.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

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

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.

Storage class TRGS 510 (Germany)

None

Applicable technical instruction according to Royal Decree 656/2017:**Classification****Storage in fixed containers****Storage in mobile containers**

No ITC applies because the product is not classified as hazardous under CLP.

7.3 Specific end use(s)

Information not available.

Section 8 Exposure controls/personal protection**8.1 Control parameters****Regulatory references**

ACGIH ACGIH 2026

European Union-OEL 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.

Ireland-OELV 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)

Section 8

Regulatory references

Malta-TLV	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)
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TOLUENE

	TWA		STEL		CEILING		Remarks	
	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm		
ACGIH		20					--	
European Union-OEL	192	50	384	100			Skin	
Ireland-OELV	192	50	384	100			Skin	
Malta-TLV	192	50	384	100			Skin	

TOLUENE

	TWA		STEL		CEILING		Remarks	
	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm		
ACGIH		20					--	
European Union-OEL	192	50	384	100			Skin	
Ireland-OELV	192	50	384	100			Skin	
Malta-TLV	192	50	384	100			Skin	

Predicted no-effect concentration - PNEC

Normal value of STP microorganisms	13.61 mg/l
Normal value in fresh water	0.68 mg/l
Normal value for fresh water sediment	16.39 mg/kg/d
Normal value in marine water	0.68 mg/l
Normal value for marine water sediment	16.39 mg/kg/d
Normal value for the terrestrial compartment	2.89 mg/kg/d

Health - Derived no-effect level - DNEL / DMEL
Local effect
Systemic effect

Consumers, long-term, inhalation	226 mg/m ³	226 mg/m ³
Workers, long-term, inhalation	192 mg/m ³	192 mg/m ³

2-Pentanone-methylsilylidine-trioxyme
Predicted no-effect concentration - PNEC

Normal value of STP microorganisms	2.15 mg/l
Normal value in fresh water	0.1 mg/l
Normal value for fresh water sediment	0.569 mg/kg
Normal value in marine water	0.01 mg/l
Normal value for marine water sediment	0.057 mg/kg
Normal value for the terrestrial compartment	0.05 mg/kg
Normal value for water, intermittent release	0.88 mg/l

Health - Derived no-effect level - DNEL / DMEL
Local effect
Systemic effect

Consumers, short-term, dermal		0.375 mg/kg bw/d
Consumers, short-term, inhalation		0.651 mg/m ³
Consumers, short-term, oral		0.375 mg/kg bw/d
Consumers, long-term, dermal		0.0325 mg/kg bw/d
Consumers, long-term, inhalation		0.0565 mg/m ³
Consumers, long-term, oral		0.0325 mg/kg bw/d
Workers, short-term, dermal		0.624 mg/kg bw/d
Workers, short-term, inhalation		2.205 mg/m ³
Workers, long-term, dermal		0.065 mg/kg bw/d
Workers, long-term, inhalation		0.2292 mg/m ³

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2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime
Predicted no-effect concentration - PNEC

Normal value of STP microorganisms	2.22 mg/l
Normal value in fresh water	
Normal value for fresh water sediment	
Normal value in marine water	
Normal value for marine water sediment	
Normal value for the terrestrial compartment	

Health - Derived no-effect level - DNEL / DMEL	Local effect	Systemic effect
Consumers, long-term, dermal		
Consumers, long-term, inhalation		56.5 µg/m ³
Consumers, long-term, oral		
Workers, long-term, dermal		
Workers, long-term, inhalation		229.2 µg/m ³

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.

When choosing risk management measures and operating conditions, consult the exposure scenarios attached.

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.

Protect your hands with gloves of the following type:

Protect your hands with gloves of the following type

Material	Thickness	Breakthrough time
Nitrile rubber (NBR)	1.5 mm	480 min
–	Glove thickness must be selected based on the minimum required breakthrough time.	–

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344/EN ISO 13034).

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, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (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.

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Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	pasty	
Colour	white	
Odour	characteristic	
Odour threshold	Not applicable	
Melting point / freezing point	Not available	
Initial boiling point	> 35 °C (> 95 °F)	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	240 °C (464 °F)	
Auto-ignition temperature	450 °C (842 °F)	
Decomposition temperature	Not available	
pH	not soluble in water	
Kinematic viscosity	> 20.5 mm ² /s	
Solubility	insoluble	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	1.35 kg/l	Temperature: 23 °C (73.4 °F)
Relative vapour density	Not available	

Particle characteristics

Information not available.

9.2 Other information

9.2.1 Information with regard to physical hazards

Information not available.

9.2.2 Other safety characteristics

Total solids	85.16 %	Temperature: 250 °C (482 °F)
VOC (Directive 2010/75/EU)	35.85 % – 484 g/l	
Volatile carbon	0.02 % – 0.3 g/l	
Kinematic viscosity (40 °C)	> 0.5 m ² /s	

Section 10 Stability and reactivity

10.1 Reactivity

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

TOLUENE

Avoid exposure to: light

TOLUENE

Avoid exposure to: light

10.2 Chemical stability

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

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10.3 Possibility of hazardous reactions

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

TOLUENE

Risk of explosion on contact with: fuming sulphuric acid, nitric acid, silver perchlorate, nitrogen dioxide, non-metal halogenates, acetic acid, organic nitrocompounds

May form explosive mixtures with: air

May react dangerously with: strong oxidising agents, strong acids, sulphur

TOLUENE

Risk of explosion on contact with: fuming sulphuric acid, nitric acid, silver perchlorate, nitrogen dioxide, non-metal halogenates, acetic acid, organic nitrocompounds

May form explosive mixtures with: air

May react dangerously with: strong oxidising agents, strong acids, sulphur

2-Pentanone-methylsilylidine-trioxime

Decomposes on contact with: water, acids

10.4 Conditions to avoid

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

10.5 Incompatible materials

Information not available.

10.6 Hazardous decomposition products

Information not available.

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

11.1.1 Metabolism, toxicokinetics, mechanism of action and other information

Information not available.

11.1.2 Information on likely routes of exposure

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.

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.

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

TOLUENE

Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

TOLUENE

Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and

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respiratory apparatus.

11.1.4 Interactive effects**TOLUENE**

Certain drugs and other industrial products can interfere with the metabolism of the toluene.

TOLUENE

Certain drugs and other industrial products can interfere with the metabolism of the toluene.

11.1.5 ACUTE TOXICITY

ATE (Inhalation) of the mixture	Not classified (no significant component)
ATE (Oral) of the mixture	> 2,000 mg/kg
ATE (Dermal) of the mixture	Not classified (no significant component)

TOLUENE

LD50 (Oral):	5,000 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	12,124 mg/kg	Species/guidelines: Rabbit
LC50 (Inhalation vapours):	31 mg/l	Exposure duration: 4 hours Species/guidelines: Rat

TOLUENE

LD50 (Oral):	5,580 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	5,000 mg/kg	Species/guidelines: Rabbit
LC50 (Inhalation vapours):	25.7 mg/l	Exposure duration: 4 hours Species/guidelines: Rat (air)

2-Pentanone-methylsilylidine-trioxime

LD50 (Oral):	1,234 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	2,000 mg/kg	Species/guidelines: Rat

2-Pentanone, O,O',O''-(ethenylsilyldiylidene)trioxime

LD50 (Oral):	1,000 mg/kg	Species/guidelines: Rat (female)
LD50 (Dermal):	> 1,786 mg/kg	Species/guidelines: Rat

11.1.6 SKIN CORROSION/IRRITATION

Does not meet the classification criteria for this hazard class

11.1.7 SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

11.1.8 RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

11.1.9 GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

11.1.10 CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

TOLUENE

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

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11.1.11 REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

11.1.12 STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

11.1.13 STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

11.1.14 ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

Viscosity:

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

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1 Toxicity**TOLUENE**

EC50 - for Crustacea	3.78 mg/l	Exposure duration: 48 hours Species/guidelines: Crangon franciscorum
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2-Pentanone-methylsilylidine-trioxime

EC50 - for Crustacea	> 113 mg/l	Exposure duration: 48 hours Species/guidelines: Daphnia magna
LC50 - for Fish	> 113 mg/l	Exposure duration: 96 hours Species/guidelines: Oncorhynchus mykiss
EC50 - for Algae / Aquatic Plants	100 mg/l	Exposure duration: 72 hours Species/guidelines: Pseudokirchneriella subcapitata

2-Pentanone, O,O',O''-(ethenylsilylidine)trioxime

EC50 - for Crustacea	100 mg/l	Exposure duration: 48 hours Species/guidelines: aquatic invertebrates
LC50 - for Fish	> 117 mg/l	Exposure duration: 96 hours Species/guidelines: Oncorhynchus mykiss
EC50 - for Algae / Aquatic Plants	103 mg/l	Exposure duration: 72 hours Species/guidelines: Pseudokirchneriella subcapitata

12.2 Persistence and degradability**TOLUENE**

Solubility in water	$100 \leq x \leq 1,000$ mg/l
Degradability	Rapidly degradable

TOLUENE

Solubility in water	$100 \leq x \leq 1,000$ mg/l
Degradability	Rapidly degradable

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2-Pentanone-methylsilylidine-trioxime

Degradability	Unavailable
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2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime

Solubility in water	34.7 g/l
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12.3 Bioaccumulative potential**TOLUENE**

Bioconcentration factor	90
Partition coefficient n-octanol/water	2.73 LogKow

TOLUENE

Bioconcentration factor	90
Partition coefficient n-octanol/water	2.73 LogKow

2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime

Partition coefficient n-octanol/water	< 3 LogKow
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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

EWC: 080410.

13.1 Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

Hazardous waste classification - Reg. (UE) 1357/2014

None

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

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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

Not applicable

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

	Restrictions	Registration Number EU
Product restrictions	40	
Contained substance		
	75	

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

Not applicable

Substances in Candidate List (Art. 59 REACH)

Registration Number EU

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)**Authorisation
Number

Sunset date

Registration Number EU

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

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Regulation (EU) 2019/1021 - on persistent organic pollutants

None

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

WGK2 – Hazard to waters

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:

Acute Tox. 4	Acute toxicity, category 4
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye irritation, category 2
Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	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
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EC50: Effective concentration (required to induce a 50% effect)
- EC: Identifier in ESIS (European archive of existing substances)
- 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

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Legend

- 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
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 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
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 23. Delegated Regulation (EU) 2023/707
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 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
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 - 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

Section 16

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 from the previous revision

This SDS has been prepared with a different software from the one previous revision. The new calculation does not allow us to identify all the differences compared to the previous version. We therefore recommend carefully reviewing all 16 sections of the SDS. We remain available to provide any clarification regarding the content or the changes made compared to the previous version, which is available to professional or industrial users.