

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.12.2022

Version number 5 (replaces version 4)

Revision: 06.12.2022

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

1.1 Product identifier

Trade name KSE 510**Article number:** 0625

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

No further relevant information available.

Application of the substance / the mixture Additive

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Remmers GmbH

Bernhard-Remmers-Str. 13
D-49624 Lönningen / Germany

Tel.: +49(0)5432/83-0

Fax: +49(0)5432/3985

Remmers (UK) Limited
Unit 4 , Lloyds Court
Manor Royal, Crawley – West Sussex RH10 9QU
fon +44 (0) 1293 594 010
fax +44 (0) 1293 594 037**Information department:**

Product Safety department: Phone: +44 (0) 1293 594 010

Email: sales@remmers.co.ukk

1.4 Emergency telephone number:

National Poisons Information Service (NPIS):

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

24h-Transport Emergency Contact Phone Number:

within USA and Canada: 1-800-424-9300

outside USA and Canada: 001-703-527-3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 3 H226 Flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms

GHS02 GHS07

Signal word Warning**Hazard-determining components of labelling:**

tetraethyl silicate

Hazard statements

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read carefully and follow all instructions.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.* **SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Mixture of the substances listed below with harmless additions.

Dangerous components [% w/w]:		
CAS: 78-10-4 EINECS: 201-083-8 Index number: 014-005-00-0 Reg.nr.: 01-2119496195-28-XXXX	tetraethyl silicate Flam. Liq. 3, H226; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	≥20-<30%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5	ethanol Flam. Liq. 2, H225	≥0.5-≤1%

Additional information For the wording of the listed hazard phrases refer to section 16.* **SECTION 4: First aid measures****4.1 Description of first aid measures****After inhalation** Take affected persons into the open air and position comfortably**After skin contact** If skin irritation continues, consult a doctor.**After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

After swallowing Seek immediate medical advice.**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

* **SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents**

Alcohol-resistant foam

Carbon dioxide

Fire-extinguishing powder

For safety reasons unsuitable extinguishing agents Water with a full water jet.**5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

Vapours are heavier than air and spread out over the ground. Ignition over greater distances is possible.

5.3 Advice for firefighters**Protective equipment:** Wear self-contained breathing apparatus.

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Additional information Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep away from ignition sources

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: Do not allow to enter the ground/soil.**6.3 Methods and material for containment and cleaning up:**

Send for recovery or disposal in suitable containers.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Use only in well ventilated areas.**Information about protection against explosions and fires:**

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities**Storage****Requirements to be met by storerooms and containers:** No special requirements.**Information on storage in a common storage facility:** Store away from food.**Further information about storage conditions:**

Protect from humidity and keep away from water.

Store container in a well ventilated position.

Do not smoke in storage areas. Storage temperature: room temperature.

Keep container tightly closed.

* SECTION 8: Exposure controls/personal protection

8.1 Control parameters**Components with limit values that require monitoring at the workplace:****CAS: 78-10-4 tetraethyl silicate**WEL | Long-term value: 44 mg/m³, 5 ppm**CAS: 64-17-5 ethanol**WEL | Long-term value: 1920 mg/m³, 1000 ppm**Additional information:** The lists that were valid during compilation were used as a basis.**8.2 Exposure controls****Appropriate engineering controls** No further data; see item 7.**Individual protection measures, such as personal protective equipment****General protective and hygienic measures**

Do not eat, drink or smoke while working.

Use skin protection cream for preventive skin protection.

Keep away from food, beverages and animal feed.

Immediately remove soiled, saturated clothing.

Wash hands before pauses and after work.

Avoid contact with eyes and skin.

The following indication regarding the personal protective equipment are to be considered as suggestions. The selection of the necessary personal protective equipment is to be evaluated by the employer depending on the types of operations and the local circumstances. If a risk assessment on-site shows that there is no risk for employees, the personal protective equipment is not required or the amount of the PPE can be adapted accordingly.

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Respiratory equipment:

Use respiratory protection only when aerosol or mist is formed.

Short term filter device:

Filter A/P2.

In case of brief exposure or low pollution load, use respiratory protection equipment with filter. In case of intensive or longer exposure, use self-contained respiratory protection equipment.

Hand protection

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection Tightly sealed safety glasses.**Body protection:** Protective work clothing.* **SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information**

Physical state	Fluid
Colour:	Yellowish
Odour:	Type specific
Odour threshold:	Not determined.
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling range	170 °C
Flammability	Flammable.
Lower and upper explosion limit	
Lower:	1.3 Vol %
Upper:	23.0 Vol %
Flash point:	47 °C (Abel-Pensky 20 ml/)
Ignition temperature:	230 °C
	230 °C
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity at 20 °C	20 s (DIN 53211/4)
dynamic:	Not determined.
Solubility	
Water:	Not miscible or difficult to mix
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	1.7 hPa
Density and/or relative density	
Density at 20 °C:	1.02 g/cm ³ (Aräometer 20 ml/)
Relative density	Not determined.
Vapour density	Not determined.

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9.2 Other information	
Appearance:	
Form:	Fluid
Important information on protection of health and environment, and on safety.	
Explosive properties:	Product is not explosive. However, formation of dangerous explosive vapour/air mixtures is possible.
Solvent separation test	< 3 %
Organic solvents:	0.9 %
VOC EU	9.5 g/l
Change in condition	
Evaporation rate	Not determined.
Information with regard to physical hazard classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if handled and stored according to specifications.

10.3 Possibility of hazardous reactions

Used empty containers may contain product gases which form explosive mixtures with air

Reacts with water in the presence of alkaline materials or acids by forming ethanol.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:

None if used properly.

None if stored properly.

* SECTION 11: Toxicological information

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

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values that are relevant for classification:

CAS: 78-10-4 tetraethyl silicate

Oral	LD50	>2,500 mg/kg (rat)
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Skin corrosion/irritation:

Dries skin out.

Based on available data, the classification criteria are not met.

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Serious eye damage/irritation: Causes serious eye irritation.**Sensitisation:** Based on available data, the classification criteria are not met.**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.**Carcinogenicity:** Based on available data, the classification criteria are not met.**Reproductive toxicity:** Based on available data, the classification criteria are not met.**STOT-single exposure:** May cause respiratory irritation.**STOT-repeated exposure:** Based on available data, the classification criteria are not met.**Aspiration hazard:** Based on available data, the classification criteria are not met.**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:****CAS: 78-10-4 tetraethyl silicate**

EC50/48h | >75 mg/l (Daphnia magna)

12.2 Persistence and degradability By hydrolysis: silicic acid and ethanol**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects**Additional ecological information:****General notes:** Do not allow product to reach ground water, bodies of water or sewage system.**SECTION 13: Disposal considerations****Recommendation**

The given refuse codes are recommendations based upon the intended use of the product. Because of special use and disposal conditions at the user's, other codes may apply under other conditions.

European waste catalogue

06 08 99 | wastes not otherwise specified

Uncleaned packaging:**Recommendation:**

Disposal must be made according to official regulations.

Packaging can be reused or recycled after cleaning.

SECTION 14: Transport information**14.1 UN number or ID number**

ADR, IMDG, IATA

UN1292

14.2 UN proper shipping name

ADR

1292 TETRAETHYL SILICATE

IMDG, IATA

TETRAETHYL SILICATE

14.3 Transport hazard class(es)

ADR



Class

3 (F1) Flammable liquids.

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Label	3
IMDG, IATA	
	
Class	3 Flammable liquids.
Label	3
14.4 Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards: Marine pollutant:	- No
14.6 Special precautions for user hazard identification number: EMS Number: Stowage Category	Warning: Flammable liquids. 30 F-E,S-D A
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 1292 TETRAETHYL SILICATE, 3, III

* SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

Seveso category P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

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15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This data is based on our present state of knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship. Delivery specifications are found in the respective Technical Information Sheets.

Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

Classification according to Regulation (EC) No 1272/2008 Calculation method**Department issuing data specification sheet:** Product Safety department / EHS**Date of previous version:** 27.07.2017**Version number of previous version:** 4**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3