

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.04.2019

Version number 5

Revision: 12.04.2019

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

1.1 Product identifier

Trade name KSE 100**Article number:** 0719

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

Coating compound/ Surface coating/ paint

Coating

Uses advised against No further relevant information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Remmers GmbH

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D-49624 Lönningen / Germany

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Information department:

Product Safety department: Tel.: Steve Dunn Tel.: +44 (0) 1293 594 010

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1.4 Emergency telephone number:

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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.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 4 H413 May cause long lasting harmful effects to aquatic life.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms

GHS02 GHS08

Signal word Danger

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.04.2019

Version number 5

Revision: 12.04.2019

Trade name **KSE 100**

(Contd. of page 1)

Hazard-determining components of labelling:

Hydrocarbons, C11-C12, isoalkanes, <2% aromatics
Alkanes, C12-15-iso-
Naphtha (petroleum), hydrotreated heavy

Hazard statements

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

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

Dangerous components:		
EC number: 918-167-1 Reg.nr.: 01-2119472146-39-XXXX	Hydrocarbons, C11-C12, isoalkanes, <2% aromatics Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 4, H413	60-80%
EC number: 920-107-4 Reg.nr.: 01-2119453414-43-XXXX	Alkanes, C12-15-iso- Asp. Tox. 1, H304	20-40%
CAS: 78-10-4 EINECS: 201-083-8 Index number: 014-005-00-0 Reg.nr.: 01-2119496195-28-XXXX	tetraethyl orthosilicate Flam. Liq. 3, H226; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	≥5-<10%

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****General information** When symptoms occur or in case of doubt, seek medical advice**After inhalation**

Take affected persons into the open air and position comfortably
Seek medical treatment in case of complaints.

After skin contact If skin irritation continues, consult a doctor.**After eye contact** Rinse opened eye for several minutes under running water.**After swallowing** Drink plenty of water and provide fresh air. Call a doctor immediately.**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.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.04.2019

Version number 5

Revision: 12.04.2019

Trade name **KSE 100**

(Contd. of page 2)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents

Foam

Water spray jet

Water mist

Dry extinguishing agents, carbon dioxide, sand or earth should only be used for small fires.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

May be released in case of fire

Carbon monoxide (CO)

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

5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

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

Put on breathing apparatus.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow to enter the ground/soil.

Do not allow product to reach sewage system or water bodies.

Inform responsible authorities in case product reaches bodies of water or sewage system.

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

Fumes can combine with air to form an explosive mixture.

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.

Ensure good ventilation/exhaust in workplaces.

Avoid the formation of aerosols.

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.

Keep breathing equipment ready.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers: No special requirements.

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.

7.3 Specific end use(s) No further relevant information available.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.04.2019

Version number 5

Revision: 12.04.2019

Trade name **KSE 100**

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems: Use only in well-ventilated areas.

8.1 Control parameters

Components with limit values that require monitoring at the workplace:	
CAS: 78-10-4 tetraethyl orthosilicate	
WEL	Long-term value: 44 mg/m ³ , 5 ppm

Additional information: The lists that were valid during compilation were used as a basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

Do not eat, drink or smoke while working.

Apply solvent-resistant skin protection preparation before beginning work.

Keep away from food, beverages and animal feed.

Immediately remove soiled, saturated clothing.

Wash hands before pauses and after work.

Respiratory equipment:

In case vapours/aerosols develop:

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.

Protection of hands:

Solvent resistant gloves

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

Neoprene gloves

Nitrile rubber, NBR

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 374 part III 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 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	
Appearance:	
Form:	Fluid
Colour:	Yellowish
Odour:	Type specific
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	hydrocarbon mixture
Flash point:	52 °C (Abel Pensky)

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.04.2019

Version number 5

Revision: 12.04.2019

Trade name **KSE 100**

(Contd. of page 4)

Inflammability (solid, gaseous)	Not applicable.
Ignition temperature:	hydrocarbon mixture
Decomposition temperature:	Not determined.
Self-inflammability:	Product is not self-igniting.
Explosive properties:	Product is not explosive. However, formation of dangerous explosive vapour/air mixtures is possible.
Explosive Limits:	
Lower:	0.6 Vol %
Upper:	23.0 Vol %
Vapour pressure:	Not determined.
Density at 20 °C:	0.79 g/cm ³ (Aräometer)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix
Distribution coefficient (n-octanol/water):	6.7 - 7.2 log POW
Viscosity:	
dynamic:	Not determined.
kinematic at 20 °C:	11 s (DIN 53211/4)
Solvent separation test	< 3 %
Organic solvents:	ca. 80 %
9.2 Other information	No further relevant information available.

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.

Avoid: heat, flames, sparks

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 toxicological effects

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

LD/LC50 values that are relevant for classification: No further relevant information available.

Specific symptoms in animal assay:

Date for tetraethoxysilane hydrolysate:

limit test (by inhalation): No mortality at the dose given.

Skin corrosion/irritation: Dries skin out.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

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.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.04.2019

Version number 5

Revision: 12.04.2019

Trade name **KSE 100**

(Contd. of page 5)

STOT-single exposure: Based on available data, the classification criteria are not met.**STOT-repeated exposure:** Based on available data, the classification criteria are not met.**Aspiration hazard:**

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity**Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** By hydrolysis: silicic acid and ethanol**12.3 Bioaccumulative potential**

The products floats on water. The hydrocarbon mixture evaporates partially from water or ground surfaces within one day, however a considerable part remains for longer periods. Bioaccumulation potentially possible.

12.4 Mobility in soil No further relevant information available.**Additional ecological information:****General notes:** Do not allow product to reach ground water, bodies of water or sewage system.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

Recommendation

Must be specially treated in compliance with official regulations.

Do not dispose of together with household garbage. Do not allow product to reach sewage system.

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

14 06 03* | other solvents and solvent mixtures

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

ADR, IMDG, IATA

UN1993

14.2 UN proper shipping name

ADR

1993 FLAMMABLE LIQUID, N.O.S. (TETRAETHYL SILICATE, Hydrocarbons, C11-C12, isoalkanes, <2% aromatics)

IMDG, IATA

FLAMMABLE LIQUID, N.O.S. (TETRAETHYL SILICATE, Hydrocarbons, C11-C12, isoalkanes, <2% aromatics)

14.3 Transport hazard class(es)

ADR



Class

3 (F1) Flammable liquids.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31


Printing date 12.04.2019

Version number 5

Revision: 12.04.2019

Trade name **KSE 100**

(Contd. of page 6)

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, <u>S-E</u> A
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	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 1993 FLAMMABLE LIQUID, N.O.S. (TETRAETHYL SILICATE, HYDROCARBONS, C11-C12, ISOALKANES, <2% AROMATICS), 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

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Delivery specifications are found in the respective Technical Information Sheets.

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.

Relevant phrases

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

(Contd. on page 8)

Safety data sheet

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Trade name KSE 100

(Contd. of page 7)

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H413 May cause long lasting harmful effects to aquatic life.

Department issuing data specification sheet: Product Safety department / EHS**Abbreviations and acronyms:**

ADR: Accord européen sur le transport 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. 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

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4