

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.04.2021

Version number 11


Revision: 29.04.2021

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

- **1.1 Product identifier**
- **Trade name:** **KEMPEROL 1K-SF**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
 - Identified use: intended for professional use only!
- **Application of the substance / the mixture** Waterproofing
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** KEMPER SYSTEM GmbH & Co. KG
Holländische Strasse 32-36
34246 Vellmar
Deutschland / Germany
Telefon: +49 (0)561 / 8295-0
Telefax: +49 (0)561 / 8295-5110
E-Mail: MSDS@KEMPER-SYSTEM.COM
- **Further information obtainable from:** research & development
- **1.4 Emergency telephone number:** Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen
Langenbeckstraße 1; Gebäude 601; 55131 Mainz
Tel. Nr.: +49 (0)6131 / 19 24 0
Universitätsmedizin der Johannes Gutenberg-Universität Mainz

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **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**



GHS07
- **Signal word** Warning
- **Hazard-determining components of labelling:** Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
benzotriazole derivatives
- **Hazard statements** H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements** P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
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: consisting of the following components.

- Dangerous components:

CAS: 2768-02-7 EINECS: 220-449-8 Reg.nr.: 01-2119513215-52	trimethoxyvinylsilane Flam. Liq. 3, H226; Acute Tox. 4, H332	0.5-2.5%
CAS: 1065336-91-5 EC number: 915-687-0 Reg.nr.: 01-2119491304-40	Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1A, H317	≥0.5-<1%

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ELINCS: 400-830-7	benzotriazole derivatives	≥0.5-<1%
Index number: 607-176-00-3	Aquatic Chronic 2, H411; Skin Sens. 1, H317	
Reg.nr.: 01-0000015075-76		

- **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:** Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Do not leave affected persons unattended.
Personal protection for the First Aider.
Take affected persons out of danger area and lay down.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
Seek medical treatment in case of complaints.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Protect unharmed eye.
- **After swallowing:** If symptoms persist consult doctor.
- **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:** CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
Avoid contact with skin and eyes
Ensure adequate ventilation
- **6.2 Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
Prevent from spreading (e.g. by damming-in or oil barriers).
- **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Do not flush with water or aqueous cleansing agents
Dispose contaminated material as waste according to item 13.
- **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 disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

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- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Protect from frost.
Store in dry conditions.
Keep container tightly sealed.
Recommended storage temperature: 5-30 °C
- **Storage class:** 10
- **7.3 Specific end use(s):** No further relevant information available.


SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
- **Additional information:** The lists valid during the making were used as 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:** The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:** When used properly and under normal conditions, breathing protection is not required.
Use suitable respiratory protective device in case of insufficient ventilation.
Filter A/P2
Respiratory protection - Gas filters and combination filters according to (DIN EN 141)
Provide thorough ventilation during and after processing / curing as methanol is split off during curing.
- **Hand protection**



Protective gloves

Check protective gloves prior to each use for their proper condition.
Only use chemical-protective gloves with CE-labelling of category III.
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
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves** Recommended materials:
Butyl rubber, BR
Recommended thickness of the material: ≥ 0.5 mm
Penetration time (min.): < 480
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.
- **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.
- **As protection from splashes gloves made of the following materials are suitable:** Manufacturer's recommendation:
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.1 mm
Penetration time (min.): < 10
- **Eye/face protection**



Tightly sealed goggles

Protective goggles and facial protection - Classification according to EN 166
- **Body protection:** protective clothing (EN 13034)

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Colour:** According to product specification

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<ul style="list-style-type: none"> - Odour: - Odour threshold: - Melting point/freezing point: - Boiling point or initial boiling point and boiling range - Flammability - Lower and upper explosion limit - Lower: - Upper: - Flash point: - Auto-ignition temperature: - Decomposition temperature: - pH - Viscosity: - Kinematic viscosity at 20 °C - Dynamic: - Solubility - water: - Partition coefficient n-octanol/water (log value) - Density and/or relative density - Density at 20 °C: - Relative density - Vapour density 	<ul style="list-style-type: none"> Characteristic Not determined. Undetermined. Undetermined. Not applicable. Not determined. Not determined. 88 °C (DIN ISO 2719) Product is not selfigniting. Not determined. Not determined. 6,500 mm²/s Not determined. Not miscible or difficult to mix. Not determined. 1.3 g/cm³ Not determined. Not determined.
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<ul style="list-style-type: none"> - 9.2 Other information - Appearance: - Form: - Important information on protection of health and environment, and on safety. - Explosive properties: - Solvent content: - Organic solvents: - VOC (EC) - Change in condition - Evaporation rate 	<ul style="list-style-type: none"> Fluid Product does not present an explosion hazard. 0.1 % 1.00 % Not determined.
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<ul style="list-style-type: none"> - Information with regard to physical hazard classes - Explosives - Flammable gases - Aerosols - Oxidising gases - Gases under pressure - Flammable liquids - Flammable solids - Self-reactive substances and mixtures - Pyrophoric liquids - Pyrophoric solids - Self-heating substances and mixtures - Substances and mixtures, which emit flammable gases in contact with water 	<ul style="list-style-type: none"> Void Void Void Void Void Void Void Void Void Void Void Void
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- 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 used according to specifications.
- 10.3 Possibility of hazardous reactions	No dangerous reactions known.
- 10.4 Conditions to avoid	No further relevant information available.
- 10.5 Incompatible materials:	No further relevant information available.
- 10.6 Hazardous decomposition products:	Hydrolysed to methanol

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 relevant for classification:

2768-02-7 trimethoxyvinylsilane

Oral	LD50	7,340-7,460 mg/kg (rat) (OECD 401)
Dermal	LD50	3,460-4,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	16.79 mg/l (rat)

1065336-91-5 Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Oral	LD50	3,230 mg/kg (rat) (OECD-guideline 423)
Dermal	LD50	>3,170 mg/kg (rat) (OECD Guideline 402 (Acute Dermal Toxicity))

benzotriazole derivatives

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rat) (OECD 402)

- Skin corrosion/irritation	Based on available data, the classification criteria are not met.
- Serious eye damage/irritation	Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation	May cause an allergic skin reaction.
- 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	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	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:

2768-02-7 trimethoxyvinylsilane

NOEC	28 mg/kg (Daphnia magna) (21d)
EC50	>100 mg/l (Daphnia magna) (OECD 202)
EC50	297.2 mg/l (Daphnia magna) (24h)

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EC10	1.1 mg/l (Pseudomonas putida) (3h; acute) 32 mg/l (Selenastrum capricornutum) (7d; acute)
EC50	>100 mg/l (DESMODESMUS SUBSPICATUS) (72h; Growth Inhibition Test; acute) >100 mg/l (daphnia) (48h; Watery twigs acute) 168.7 mg/l (Daphnia magna) (48h)
EC50	210 mg/l (Selenastrum capricornutum) (7d; static acute)
LC 50	191 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (96h acute)
LC50	>100 mg/l (Brachydanio rerio (Ricefish)) (96h; static acute)
NOEC	28 mg/l (Daphnia magna) (21d)
NOEC	25 mg/l (Selenastrum capricornutum) (7d; acute)

1065336-91-5 Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

EC50	0.42 mg/l (ALGAE) (OECD 201)
LC50	0.9 mg/l /72 h (fish) (OECD 203 (96 hr))

benzotriazole derivatives

NOEC	100 mg/kg (Eisenia fetida/foetida) (56d; OECD 222)
LC50/96 h	2.8 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (OECD 203; ISO 7346; 84/449/EWG,C1 stat.)
EC50	>1,000 mg/l (Belebtschlamm) (3h; OECD 209)
EC50	4 mg/l (Daphnia magna) (48h;)
EC10	10 mg/l (Pseudokirchneriella subcapitata) (72h; OECD 201)
EC50	>100 mg/l (Pseudokirchneriella subcapitata) (72h; OECD 201)
NOEC	0.78 mg/l (Daphnia magna) (21d; OECD 202, Part 2)

- **12.2 Persistence and degradability** No further relevant information available.
- **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:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Disposal according to official regulations

- European waste catalogue

08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances
17 02 03	plastic

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN number or ID number	
- ADR, ADN, IMDG, IATA	Void
- 14.2 UN proper shipping name	
- ADR, ADN, IMDG, IATA	Void
- 14.3 Transport hazard class(es)	
- ADR, ADN, IMDG, IATA	
- Class	Void

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- 14.4 Packing group - ADR, IMDG, IATA	Void
- 14.5 Environmental hazards: - Marine pollutant:	No
- 14.6 Special precautions for user	Not applicable.
- 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
- UN "Model Regulation":	Void

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.

- 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.

- National regulations:

- Information about limitation of use:

Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
Employment restrictions concerning women of child-bearing age must be observed.

- 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The safety data sheet issued is also compliant with the regulation Annex I of Regulation (EU) no. 453/2010 and Annex II of Regulation (EU) no. 2020/878.

- Relevant phrases

H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

- Department issuing SDS:

research & development

- Contact:

research & development

- Date of previous version:

11.01.2021

- Version number of previous version:

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- 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)
VOC: Volatile Organic Compounds (USA, EU)
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
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- Sources

- www.echa.europa.eu
- www.baua.de

IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance:

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- www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp
- www.dguv.de/ifa/gestis/gestis-dnel-liste

- * Data compared to the previous version altered.

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