Safety data sheet

according to Regulation (EC) No. 1907/2006 as amended from time to time

Printing date 24.04.2024 Version-No. 1 Revision: 10.08.2023

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

· **1.1. Product identifier**

· **Trade name / Article-No: KLEIBERIT *607.0.20***

· **UFI:** 1ECV-T0K0-R00E-NK5P

· **1.2. Relevant identified uses of the substance / mixture or uses advised against**
For professional users only.

· **Application of the substance / the mixture** Adhesives

· **1.3. Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**
KLEIBERIT SE & Co. KG
Max-Becker-Str. 4
76356 Weingarten
Germany

· **Further information obtainable from:**
phone: +49 (0) 7244 62-0
FAX: +49 (0) 7244 700-0
E-Mail: hse@kleiberit.com

· **1.4. Emergency telephone number:**
+44 1235 239670 European regional number (European languages)
112 Emergency telephone number for Malta
543 22 22 Icelandic University Hospital

SECTION 2: Hazards identification

· **2.1. Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008 - GHS/CLP**
Eye Dam. 1 H318 Causes serious eye damage.

· **2.2. Label elements**

· **Hazard pictograms**

GHS05

· **Signal word** Danger

· **Hazard-determining components of labelling:**
3-aminopropyltrimethoxysilane

· **Hazard statements**
H318 Causes serious eye damage.

· **Precautionary statements**

P101	If medical advice is needed, have product container or label at hand.
P280	Wear protective gloves / eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.

· **Additional information:**
Contains trimethoxyvinylsilane. May produce an allergic reaction.

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· **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 substances listed below with nonhazardous additions.

· **Dangerous components:**

· Registry-No's	Identification / Classification GHS-CLP	%
CAS: 13822-56-5	3-aminopropyltrimethoxysilane Eye Dam. 1, H318; Skin Irrit. 2, H315	≥5-<10%
CAS: 2768-02-7 Reg.nr.: 01-2119513215-52-XXXX	trimethoxyvinylsilane Flam. Liq. 2, H225; Acute Tox. 4, H332; Skin Sens. 1B, H317	≥1-<2%
CAS: 6674-22-2 Reg.nr.: 01-2119977097-24-XXXX	Diazabicyclo(5.4.0)undec-7-en Acute Tox. 3, H301; Skin Corr. 1B, H314	<1%
CAS: 52829-07-9 Reg.nr.: 01-2119537297-32-XXXX	Bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate Repr. 2, H361f; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 2, H411	≥0.25-<1%
CAS: 67-56-1 Reg.nr.: 01-2119433307-44-XXXX	methanol Flam. Liq. 2, H225; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370 Specific concentration limits: STOT SE 1; H370: C ≥ 10 % STOT SE 2; H371: 3 % ≤ C < 10 %	<0.5%

· **Additional information:**
Trimethoxyvinylsilane (CAS: 2768-02-7) is classified as Skin Sens. 1B, H317 according to Annex VI of Regulation (EC) No 1772/2008 based on vivo data in laboratory animals. Mixtures with up to 5% active substance in polymers of different viscosities up to 60 mPas were examined in the "Local Lymph node assay" (OECD 429). None of these mixtures showed a sensitizing potential. Due to these results and the comparable composition, the classification and labeling with Skin Sens. 1B, H317 can be omitted for this product.
Product hydrolyzes under formation of methanol (CAS No. 67-56-1).
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:** In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** Call for 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.

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.
· **5.2. Special hazards arising from the substance or mixture** No further relevant information available.

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· **5.3. Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· **6.1. Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Particular danger of slipping on leaked/spilled product.
· **6.2. Environmental precautions:** Do not allow to enter surface or ground water.
· **6.3. Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **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**
Enclosure or extractor facilities are required.
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the vapour concentration below the workplace limit, wear an adequate respiratory protective device.
Not less than 3-5 air exchanges per hour
Appropriate regular employee training.
Spraying: in vented cabin with laminar air flow
Wear protective gloves/protective clothing/eye protection/face protection.
Use only in well ventilated areas.
Perform spray applications in automated and closed systems.
Use at room temperature
additional to professional application with multiple and/or significant contact
limit the exposure to 4 hours
Do not allow to reach ground water, water bodies or sewage system.
· **General protective and hygienic measures:**
Avoid contact with the skin.
Keep good industrial hygiene.

· **7.2. Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Keep container tightly closed.
· **Information about storage in one common storage facility:** Observe the national regulations.
· **Further information about storage conditions:** Protect from humidity and water.
· **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:**
· **DNELs**

2768-02-7 trimethoxyvinylsilane

Dermal	DNEL	0.69 mg/kg (human being)
Inhalative	DNEL	4.9 mg/m3 (human being)

52829-07-9 Bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Dermal	DNEL long term	1.6 mg/kg (human being)

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Inhalative DNEL short term 2.82 mg/m3 (human being)
DNEL long term 2.82 mg/m3 (human being)

67-56-1 methanol
Dermal DNEL short term 40 mg/kg (human being)
DNEL long term 40 mg/kg (human being)
Inhalative DNEL short term 260 mg/m3 (human being)
DNEL long term 260 mg/m3 (human being)

· **PNECs**

2768-02-7 trimethoxyvinylsilane

PNEC- Freshwater	0.36 mg/l (not specified)
PNEC-seawater	0.036 mg/l (not specified)
PNEC-periodic release	3.4 mg/l (not specified)
PNEC-Freshwater sediment	0.29 mg/kg (not specified)
PNEC-soil	0.048 mg/kg (not specified)
PNEC-wastewater treatment plant	110 mg/l (not specified)

52829-07-9 Bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

PNEC- Freshwater	0.018 mg/l (not specified)
PNEC-seawater	0.0018 mg/l (not specified)
PNEC-periodic release	0.007 mg/l (not specified)
PNEC-Freshwater sediment	29 mg/kg (not specified)
PNEC-Seawater sediment	2.9 mg/kg (not specified)
PNEC-soil	5.9 mg/kg (not specified)
PNEC-wastewater treatment plant	1 mg/l (not specified)

67-56-1 methanol

PNEC- Freshwater	154 mg/l (not specified)
PNEC-seawater	15.4 mg/l (not specified)
PNEC-soil	23.5 mg/kg (not specified)
PNEC-wastewater treatment plant	100 mg/l (not specified)

· **Ingredients with biological limit values:**

67-56-1 methanol
BGW (Germany) 15 mg/l
Untersuchungsmaterial: Urin
Probennahmezeitpunkt: Expositionsende bzw. Schichtende, bei Langzeitexposition: am Schichtende nach mehreren vorangegangenen Schichten
Parameter: Methanol

· **CAS No. Designation of material % Type Value Unit**

67-56-1 methanol
IOELV (INT) Long-term value: 260 mg/m³, 200 ppm
Skin
AGW (Germany) Long-term value: 130 mg/m³, 100 ppm
2(II);DFG, EU, H, Y

· **8.2. Exposure controls**
limit the exposure to:
8 hours
additional to professional application with multiple and/or significant contact
limit the exposure to 4 hours

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Ensure that activities are executed by specialists or authorised personnel only.
· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:** Do not inhale gases / fumes / aerosols.
· **Respiratory protection:**
Not necessary if room is well-ventilated.
At spray application respiratory protection must be worn.
· **Hand protection**
Protective gloves
Avoid direct contact with the chemical/ the product/ the preparation by organisational measures.
· **Material of gloves** B Polyethylennylon: Barrier™ (0,062 mm)
· **Eye/face protection** Tightly sealed goggles
· **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:**	Beige
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Undetermined.
· **Boiling point or initial boiling point and boiling range**	Undetermined.
· **Flammability**	Not applicable.
· **Lower and upper explosion limit**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Flash point:**	Not applicable.
· **Auto-ignition temperature:**	>300 °C
· **Decomposition temperature:**	Not determined.
· **pH**	Mixture is non-soluble (in water).
· **Viscosity:**	
· **Kinematic viscosity**	Not determined.
· **Dynamic at 20 °C:**	ca. 1.000 mPas Brookfield (3 / 20 rpm)
· **Solubility**	
· **water:**	Not miscible or difficult to mix.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure:**	Not determined.
· **Density and/or relative density**	
· **Density at 20 °C:**	ca. 1.2 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.

· **9.2. Other information**

· **Appearance:**	
· **Form:**	Fluid
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Solvent separation test:**	
· **Organic solvents:**	10.7 %

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· **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**	Void
· **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**
see item 10.3
No further relevant information available.
· **10.2. Chemical stability** Product hydrolyzes under formation of methanol (CAS No. 67-56-1).
· **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** humidity
· **10.5. Incompatible materials:** No further relevant information available.
· **10.6. Hazardous decomposition products:** Methanol - On reaction with water or air humidity

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/LC_{50} values relevant for classification:**

2768-02-7 trimethoxyvinylsilane

Oral	LD_{50}	7,120-7,236 mg/kg (rat) (OECD 401)
Dermal	LD_{50}	3,200 mg/kg (rabbit) (OECD 402)
Inhalative	LC_{50} /4 h	16.8 mg/l (rat) (OECD 403)

6674-22-2 Diazabicyclo(5.4.0)undec-7-en

Oral	LD_{50}	215 mg/kg (rat)

52829-07-9 Bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Oral	LD_{50}	>2,000 mg/kg (rat)
Dermal	LD_{50}	>2,000 mg/kg (rat)

67-56-1 methanol

Oral	LD_{50}	143 mg/kg (human being)
		7,300 mg/kg (mouse)

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5,900 mg/kg (rat)
Dermal LD_{50} 20,000 mg/kg (rabbit)
Inhalative LC_{50} /4 h 85 mg/l (rat)

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Causes serious eye damage.
· **Respiratory or skin 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** 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
LC_{50} 191 mg / l / 96h (Fathead minnow - Pimephales promelas)
EC_{50} 169 mg / l / 48h (water flea - daphnia)

6674-22-2 Diazabicyclo(5.4.0)undec-7-en
LC_{50} 100 mg / l / 96h (fish)
EC_{50} 50 mg / l / 48h (water flea - daphnia)

52829-07-9 Bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate
LC_{50} 4.4 mg / l / 96h (Bluegill - Lepomis macrochirus)
4.4 mg / l / 96h (fish)
EC_{50} 8.6 mg / l / 48h (water flea - daphnia)

67-56-1 methanol
LC_{50} 15,500 mg / l / 96h (Bluegill - Lepomis macrochirus)

· **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 2 (German Regulation) (Self-assessment): hazardous for water
Danger to drinking water if even small quantities leak into the ground.
Do not allow product to reach sewage system or any water course.

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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.
Must be specially treated adhering to official regulations.
· **European waste catalogue**
08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances
· **Uncleaned packaging:**
· **Recommendation:**
Non contaminated packagings may be recycled.
Empty contaminated packagings thoroughly. Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1. UN number or ID number**
· **ADR, IMDG, IATA** Void
· **14.2. UN proper shipping name**
· **DOT, ADR, IMDG, IATA** Void
· **14.3. Transport hazard class(es)**
· **Class** Void
· **14.4. Packing group**
· **ADR, IMDG, IATA** Void
· **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**
See position no 2 - Hazards Identification

· **Directive 2012/18/EU - Seveso-III:**
· **Named dangerous substances - ANNEX I** None of the ingredients is included.
· **Regulation (EC) No 1907/2006 - REACH, ANNEX XVII** Conditions of restriction: 3, 69
· **Regulation (EU) No 649/2012**

None of the ingredients is listed.
· **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.
· **Regulation (EC) No 273/2004 on drug precursors**

108-88-3 toluene: 3
· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

108-88-3 toluene: 3

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· **National regulations:**

· **D: Waterhazard class** Water hazard class 2 (Self-assessment): hazardous for water.
· **Other regulations, limitations and prohibitive regulations:** For professional users only.
· **VOC - 2010/75/EU [g/L]:** <150.0 g/l
· **VOC - 2010/75/EU [%]:** <12.00 %

· **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.

· **Relevant phrases**
H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H361f Suspected of damaging fertility.
H370 Causes damage to organs.
H371 May cause damage to organs.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Safety & Environment
· **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
DOT: US Department of Transportation
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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1B: Skin sensitisation – Category 1B
Repr. 2: Reproductive toxicity – Category 2
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2