

Safety data sheet

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

Printing date 15.09.2023

Version-No. 2 (replaces version 1)

Revision: 15.09.2023

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

- **1.1. Product identifier**
- Trade name / Article-No: **KLEIBERIT 599.2**
- **1.2. Relevant identified uses of the substance / mixture or uses advised against**
No further relevant information available.
- **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)

SECTION 2: Hazards identification

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008 - GHS/CLP**
The product is not classified as hazardous to health or environment according to the CLP regulation.
- **2.2. Label elements**
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**
Safety data sheet available on request.
- **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: 110-63-4	1,4-Butandiol	≤3%
Reg.nr.: 01-2119471849-20-0000	Acute Tox. 4, H302; STOT SE 3, H336	
CAS: 77-99-6	Trimethylolpropan	<1%
Reg.nr.: 01-2119486799-10-0001	Repr. 2, H361fd	

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EU

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- **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:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Rinse with warm water.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth with plenty of water.
Seek medical treatment.
- **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.
- **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**
Particular danger of slipping on leaked/spilled product.
- **6.2. Environmental precautions:** No special measures required.
- **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**
Ensure good ventilation. This can be achieved by using a local exhaust or general exhaust system. If these measures are insufficient to keep the vapour concentration below the workplace limit, wear an adequate respiratory protective device.
Appropriate regular employee training.
Wear protective gloves/protective clothing/eye protection/face protection.
Carry out filling operations only at sites with extractors available.
regular check up, maintenance and cleaning of equipment and machines
Clean the pipe before decoupling
- **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:** None.

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- **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**

- **110-63-4 1,4-Butandiol**

- Dermal DNEL long term 19 mg/kg (human being)

- Inhalative DNEL long term 136 mg/m³ (human being)

- **PNECs**

- **110-63-4 1,4-Butandiol**

- PNEC- Freshwater 0.813 mg/l (not specified)

- PNEC-seawater 0.0813 mg/l (not specified)

- PNEC-Freshwater sediment 3.61 mg/kg (not specified)

- PNEC-Seawater sediment 0.361 mg/kg (not specified)

- PNEC-soil 0.244 mg/kg (not specified)

- PNEC-wastewater treatment plant 1,554 mg/l (not specified)

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

- **110-63-4 1,4-Butandiol**

- AGW (Germany) Long-term value: 200 mg/m³, 50 ppm
4(II);AGS, 11

- **8.2. Exposure controls** 8 hours

- **Appropriate engineering controls** No further data; see section 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.

- **Respiratory protection:** Not necessary if room is well-ventilated.

- **Hand protection** Protective gloves

- **Material of gloves** Synthetic rubber gloves

- **Eye/face protection** 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:**

According to product specification

- **Odour:**

Weak, characteristic

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Undetermined.

- **Boiling point or initial boiling point and boiling range**

>250 °C

- **Flammability**

Not applicable.

- **Lower and upper explosion limit**

- **Lower:**

Not determined.

- **Upper:**

Not determined.

- **Flash point:**

>100 °C

- **Auto-ignition temperature:**

Not applicable.

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· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	ca. 45.000 mPas Brookfield (5 / 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. 1.6 g/cm ³
· 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.
· 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** Stable when stored and used properly.
- **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.

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- **10.6. Hazardous decomposition products:** No dangerous decomposition products known.

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:**

110-63-4 1,4-Butandiol

Oral LD₅₀ 1,500 mg/kg (rat)
 Dermal LD₅₀ >2,000 mg/kg (rabbit)

112945-52-5 Silica, amorphous, fumed, crystalline-free

Oral LD₅₀ >5,000 mg/kg (rat)
 Dermal LD₅₀ >2,000 mg/kg (rabbit)

77-99-6 Trimethylolpropan

Oral LD₅₀ 14,700 mg/kg (rat) (OECD 401)
 Dermal LD₅₀ 100,001 mg/kg (rabbit) (OECD 402)
 Inhalative LC₅₀ /4 h 0.855 mg/l (rat)

- **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** 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:**

110-63-4 1,4-Butandiol

LC₅₀ >3,000 mg / l / 96h (fish) (OECD-Richtlinie 202, Teil 1, statisch)
 EC₅₀ 813 mg / l / 48h (water flea - daphnia)
 EC₅₀ >500 mg / l / 72h (algae)

112945-52-5 Silica, amorphous, fumed, crystalline-free

LC₅₀ >10,000 mg / l / 96h (Zebrafish - Danio rerio) (OECD 203)

77-99-6 Trimethylolpropan

EC₅₀ 13,000 mg / l / 48h (water flea - daphnia)

- **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.

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- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects**

- **Behaviour in sewage processing plants:**

- **Remark:**

At correct sewage disposal in small quantities to biological sewage plants failures of the activated sludge are not expected.

- **Additional ecological information:**

- **General notes:**

Not known to be hazardous to water.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

SECTION 13: Disposal considerations

- **13.1. Waste treatment methods**

- **Recommendation** Can be disposed of with household garbage in small quantities after curing.

- **European waste catalogue**

08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

- **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 (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.

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- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

- **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

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

None of the ingredients is listed.

- **National regulations:**

- **D: Waterhazard class** Water hazard class 1 (Self-assessment): slightly hazardous for water.

- **VOC - 2010/75/EU [g/L]:** <2.0 g/l

- **VOC - 2010/75/EU [%]:** <0.10 %

- **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**

H302 Harmful if swallowed.

H336 May cause drowsiness or dizziness.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

- **Department issuing SDS:** Safety & Environment

- **Version number of previous version:** 1

- **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

Acute Tox. 4: Acute toxicity – Category 4

Repr. 2: Reproductive toxicity – Category 2

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