

## Safety data sheet

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

Printing date 06.01.2023


Version-No. 3 (replaces version 2)

Revision: 06.01.2023

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

- **1.1. Product identifier**
- Trade name / Article-No: **KLEIBERIT 599.0**
- Component: A
- UFI: E7V1-A0R7-P00H-AHRV
- **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  
D - 76356 Weingarten / Baden  
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**  
Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
- **2.2. Label elements**
- **Hazard pictograms**  
  
GHS08
- **Signal word** Warning
- **Hazard-determining components of labelling:**  
reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol
- **Hazard statements**  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
- **Precautionary statements**  
P261 Avoid breathing vapours.  
P280 Wear protective gloves / eye protection.  
P308+P313 IF exposed or concerned: Get medical advice/attention.
- **2.3. Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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· 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	%
Reg.nr.: 01-2119488034-38-XXXX	reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimehtanol Repr. 2, H361fd; Eye Irrit. 2, H319	≥5-<10%
CAS: 110-63-4	1,4-Butandiol	3-5%
Reg.nr.: 01-2119471849-20-0000	Acute Tox. 4, H302; STOT SE 3, H336	

· **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:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Generally the product does not irritate the skin.

#### After eye contact:

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

CO<sub>2</sub>, 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

Wear protective equipment. Keep unprotected persons away.

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).

Ensure adequate ventilation.

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- 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**

- Appropriate regular employee training.
- 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.
- 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.
- 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**

**reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol**

- Dermal DNEL long term 4.2 mg/kg (human being)
- Inhalative DNEL long term 14.5 mg/m<sup>3</sup> (human being)

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

- Dermal DNEL long term 19 mg/kg (human being)
- Inhalative DNEL long term 136 mg/m<sup>3</sup> (human being)

**PNECs****reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol**

- PNEC- Freshwater 0.743 mg/l (not specified)
- PNEC-seawater 0.0743 mg/l (not specified)
- PNEC-wastewater treatment plant 100 mg/l (not specified)

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

- PNEC- Freshwater 0.813 mg/l (not specified)
- PNEC-seawater 0.0813 mg/l (not specified)

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

AGW (Germany) Long-term value: 200 mg/m<sup>3</sup>, 50 ppm  
4(II);AGS, 11

**8.2. Exposure controls**

limit the exposure to:

8 hours

- **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.

- **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation:

At spray application respiratory protection must be worn.

Filter A/P2 (EN 14387)

- **Hand protection** Protective gloves

- **Material of gloves** A Nitrile rubber - NBR: AlphaTec® (> 0,4 mm)

- **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:**

Light beige

- **Odour:**

Weak, characteristic

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Undetermined.

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

190 °C

- **Flammability**

Not applicable.

- **Lower and upper explosion limit**

- **Lower:**

Not determined.

- **Upper:**

Not determined.

- **Flash point:**

140 °C

- **Ignition temperature:**

450 °C

- **Decomposition temperature:**

Not determined.

- **pH**

Not determined.

- **Viscosity:**

- **Kinematic viscosity**

Not determined.

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· <b>Dynamic at 20 °C:</b>	ca. 21.000 mPas Brookfield RVT
· <b>Solubility</b>	
· <b>water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	1 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	ca. 1.6 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>9.2. Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	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.

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- **10.5. Incompatible materials:** No further relevant information available.
- **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/LC<sub>50</sub> values relevant for classification:**

#### reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol

Oral LD<sub>50</sub> >2,000 mg/kg (rat)  
 Dermal LD<sub>50</sub> >10,000 mg/kg (rabbit)

#### 110-63-4 1,4-Butandiol

Oral LD<sub>50</sub> 1,500 mg/kg (rat)  
 Dermal LD<sub>50</sub> >2,000 mg/kg (rabbit)

- **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** Suspected of damaging fertility. Suspected of damaging the unborn child.
- **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.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
 Reproduction toxic Cat. 2; H 361 (CLP)
- **11.2 Information on other hazards**
- **Endocrine disrupting properties**

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1. Toxicity**
- **Aquatic toxicity:**

#### reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol

LC<sub>50</sub> 1,250 mg / l / 96h (Zebrafish - Danio rerio)  
 EC<sub>50</sub> 1,090 mg / l / 48h (water flea - daphnia)  
 EC<sub>50</sub> 743 mg / l / 72h (green algae-Ps.kirchneriella subcapitata)

#### 110-63-4 1,4-Butandiol

LC<sub>50</sub> >3,000 mg / l / 96h (fish) (OECD-Richtlinie 202, Teil 1, statisch)  
 EC<sub>50</sub> 813 mg / l / 48h (water flea - daphnia)  
 EC<sub>50</sub> >500 mg / l / 72h (algae)

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- **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.
- **12.6. 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**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **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

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- **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
- **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**
- 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.
- **Other regulations, limitations and prohibitive regulations:** Restricted to professional users.
- **VOC - 2010/75/EU [g/L]:** 2.6 g/l
- **VOC - 2010/75/EU [%]:** 0.17 %
- **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.

H319 Causes serious eye irritation.

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:** 2

- **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

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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  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Repr. 2: Reproductive toxicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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