

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.

(Contd. on page 2)

EU

Safety data sheet
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Revision: 06.01.2023

Trade name / Article-No: KLEIBERIT 599.0

(Contd. of page 1)

- 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-<10%	
5-methanol and propylidynetrimethanol		
Repr. 2, H361fd; Eye Irrit. 2, H319		
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:

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

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.

(Contd. on page 3)

EU

Safety data sheet
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Version-No. 3 (replaces version 2)

Revision: 06.01.2023

Trade name / Article-No: KLEIBERIT 599.0*(Contd. of page 2)***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**

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/m³ (human being)

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**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)

(Contd. on page 4)

EU

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

Trade name / Article-No: KLEIBERIT 599.0

(Contd. of page 3)

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**

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**

Not determined.

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

140 °C

· **Ignition temperature:**

450 °C

· **Decomposition temperature:**

Not determined.

· **pH**

Not determined.

· **Viscosity:**

Not determined.

· **Kinematic viscosity**

(Contd. on page 5)

EU

Safety data sheet
according to Regulation (EC) No. 1907/2006 as amended from
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Printing date 06.01.2023

Version-No. 3 (replaces version 2)

Revision: 06.01.2023

Trade name / Article-No: KLEIBERIT 599.0*(Contd. of page 4)*

· Dynamic at 20 °C:	ca. 21.000 mPas Brookfield RVT
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	1 hPa
· 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.	
· Auto-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.**10.3. Possibility of hazardous reactions** No dangerous reactions known.**10.4. Conditions to avoid** No further relevant information available.*(Contd. on page 6)*

EU

Safety data sheet
according to Regulation (EC) No. 1907/2006 as amended from
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Printing date 06.01.2023

Version-No. 3 (replaces version 2)

Revision: 06.01.2023

Trade name / Article-No: KLEIBERIT 599.0*(Contd. of page 5)*

- **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/LC₅₀ values relevant for classification:**

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

Oral LD₅₀ >2,000 mg/kg (rat)
 Dermal LD₅₀ >10,000 mg/kg (rabbit)

110-63-4 1,4-Butandiol

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

LC₅₀ 1,250 mg / l / 96h (Zebrafish - Danio rerio)
 EC₅₀ 1,090 mg / l / 48h (water flea - daphnia)
 EC₅₀ 743 mg / l / 72h (green algae-Ps.kirchneriella subcapitata)

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)

(Contd. on page 7)

EU

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

Trade name / Article-No: KLEIBERIT 599.0

(Contd. of page 6)

- **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

(Contd. on page 8)

EU

Safety data sheet
according to Regulation (EC) No. 1907/2006 as amended from
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Version-No. 3 (replaces version 2)

Revision: 06.01.2023

Trade name / Article-No: KLEIBERIT 599.0

(Contd. of page 7)

· 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

(Contd. on page 9)

EU

Safety data sheet
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Version-No. 3 (replaces version 2)

Revision: 06.01.2023

Trade name / Article-No: KLEIBERIT 599.0*(Contd. of page 8)*

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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