

## Safety data sheet

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

Printing date 09.11.2023


Version-No. 8 (replaces version 7)

Revision: 18.08.2022

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

- **1.1. Product identifier**
- Trade name / Article-No: **KLEIBERIT 431.7**
- **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**  
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **2.2. Label elements**
- **Hazard pictograms**  
  
GHS07
- **Signal word** Warning
- **Hazard-determining components of labelling:**  
2,4-dioxo-1,3-diazetidine-1,3-bis(methyl-m-phenylene) diisocyanate
- **Hazard statements**  
H317 May cause an allergic skin reaction.
- **Precautionary statements**  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves.  
P302+P352 IF ON SKIN: Wash with plenty of water and soap.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P321 Specific treatment (see on this label).
- **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	%
CAS: 2634-33-5 Reg.nr.: 01-2120761540-60-XXXX	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317 Specific concentration limit: Skin Sens. 1; H317: C ≥ 0.05 %	<0.05%
CAS: 55965-84-9	a mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H -isothiazol-3-one [EC No 220-239-6] (3:1) Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); Skin Sens. 1A, H317, EUH071 Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %	≥ 0.00025- < 0.0015%

· **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:**

Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.

If skin irritation continues, consult a doctor.

· **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.

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**Trade name / Article-No: KLEIBERIT 431.7***(Contd. of page 2)***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:** Dilute with plenty of water.
- **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.
- **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** No special precautions are necessary if used correctly.
- **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:**
- **PNECs**

**2634-33-5 1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one**

PNEC- Freshwater	0.00403 mg/l (not specified)
PNEC-seawater	0.000403 mg/l (not specified)
PNEC-Freshwater sediment	0.0499 mg/kg (not specified)
PNEC-Seawater sediment	0.00499 mg/kg (not specified)
PNEC-soil	3 mg/kg (not specified)

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PNEC-wastewater treatment plant 1.03 mg/l (not specified)

**55965-84-9 a mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H -isothiazol-3-one [EC No 220-239-6] (3:1)**

PNEC- Freshwater 0.00339 mg/l (not specified)

PNEC-seawater 0.00339 mg/l (not specified)

PNEC-Freshwater sediment 0.027 mg/kg (not specified)

PNEC-Seawater sediment 0.027 mg/kg (not specified)

PNEC-soil 0.01 mg/kg (not specified)

PNEC-wastewater treatment plant 0.027 mg/l (not specified)

CAS No.	Designation of material	%	Type	Value	Unit
2634-33-5	1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one				
	MAK (Germany) vgl.Abschn.IIb und Xc				
55965-84-9	a mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H -isothiazol-3-one [EC No 220-239-6] (3:1)				
	MAK (Germany) Long-term value: 0.2E mg/m <sup>3</sup>				
	vgl.Abschn.Xc				

**8.2. Exposure controls**

limit the exposure to:

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:**

White

- **Odour:**

Weak, characteristic

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Undetermined.

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

100 °C

- **Flammability**

Not applicable.

- **Lower and upper explosion limit**

- **Lower:**

Not determined.

- **Upper:**

Not determined.

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· Flash point:	Not applicable.
· Auto-ignition temperature:	Not applicable.
· Decomposition temperature:	Not determined.
· pH at 20 °C	7
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	2,000 mPas
· Solubility	
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	1.1 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
<b>9.2. Other information</b>	
· 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:	0.6 %
· Water:	54.9 %
· Solids content:	43.7 %
· Change in condition	
· Evaporation rate	Not determined.
<b>Information with regard to physical hazard classes</b>	
· 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

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· 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.

#### · 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:

#### 2634-33-5 1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one

Oral	LD <sub>50</sub>	>1,150 mg/kg (mouse)
		1,020 mg/kg (rat)

Dermal	LD <sub>50</sub>	>2,000 mg/kg (mouse)
		4,115 mg/kg (rat)

#### 55965-84-9 a mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H -isothiazol-3-one [EC No 220-239-6] (3:1)

Oral	LD <sub>50</sub>	457 mg/kg (rat)
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Dermal	LD <sub>50</sub>	141 mg/kg (rabbit)
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Inhalative	LC <sub>50</sub> /4 h	0.33 mg/l (rat)
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#### 2682-20-4 2-methyl-2H-isothiazol-3-one

Oral	LD <sub>50</sub>	285 mg/kg (rat)
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Dermal	LD <sub>50</sub>	>2,000 mg/kg (rat)
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Inhalative	LC <sub>50</sub> /4 h	0.384 mg/l (rat)
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· 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.

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- **11.2 Information on other hazards**
- **Endocrine disrupting properties**

None of the ingredients is listed.

**SECTION 12: Ecological information**

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

**2634-33-5 1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one**LC<sub>50</sub> 1.3 mg / l / 96h (Fathead minnow - Pimephales promelas)LC<sub>50</sub> 2.94 mg / l / 48h (water flea - daphnia)EC<sub>50</sub> 3.7 mg / l / 48h (water flea - daphnia)EC<sub>50</sub> 0.37 mg / l / 72h (green algae-Ps.kirchneriella subcapitata)**55965-84-9 a mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H -isothiazol-3-one [EC No 220-239-6] (3:1)**LC<sub>50</sub> 0.19 mg / l / 96h (Fathead minnow - Pimephales promelas)

0.19 mg / l / 96h (fish)

EC<sub>50</sub> 0.16 mg / l / 48h (water flea - daphnia)EC<sub>50</sub> 0.018 mg / l / 72h (green algae-Ps.kirchneriella subcapitata)**2682-20-4 2-methyl-2H-isothiazol-3-one**LC<sub>50</sub> 0.07 mg / l / 96h (Fathead minnow - Pimephales promelas)

6 mg / l / 96h (fish)

EC<sub>50</sub> 1.6 mg / l / 48h (water flea - daphnia)EC<sub>50</sub> 0.157 mg / l / 72h (algae)

- **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

**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**

Adhesive completely reacted:

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

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- **Uncleaned packaging:**
- **Recommendation:**  
 Non contaminated packagings may be recycled.  
 Empty contaminated packagings thoroughly. Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**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
- **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**  
 67-64-1 acetone: 3
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**  
 67-64-1 acetone: 3

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- **National regulations:**
- **D: Waterhazard class** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Other regulations, limitations and prohibitive regulations:** For professional users only.
- **VOC - 2010/75/EU [g/L]:** <10.0 g/l
- **VOC - 2010/75/EU [%]:** <1.00 %
- **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**

- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H310 Fatal 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.
- H330 Fatal 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.
- EUH071 Corrosive to the respiratory tract.

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

- **Version number of previous version:** 7

- **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)
- 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. 3: Acute toxicity – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Acute Tox. 2: Acute toxicity – Category 2
- Skin Corr. 1C: Skin corrosion/irritation – Category 1C
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- 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