

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

Printing date 16.09.2025

Version-No. 10.0 (replaces version 9.0)

Revision: 27.05.2025

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

- **1.1. Product identifier**
- **Trade name / Article-No: KLEIBERIT 848.1**
- **UFI: FXFX-006W-F001-D1SW**
- **1.2. Relevant identified uses of the substance / mixture or uses advised against**
 For professional users only.
- **Application of the substance / the mixture** Priming
- **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
 National Poisons Information Centre Ireland:
+353 (0)1 809 2166 Members of the public Number (8am-10pm)
+353 (0)1 809 2566 Healthcare professional telephone Number (24hrs)

SECTION 2: Hazards identification

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008 - GHS/CLP**
 Flam. Liq. 2 H225 Highly flammable liquid and vapour.
 Eye Irrit. 2 H319 Causes serious eye irritation.
 STOT SE 3 H336 May cause drowsiness or dizziness.

- **2.2. Label elements**
- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**
 2-butanone
- **Hazard statements**
 H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

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· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P243 Take action to prevent static discharges.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves / eye protection / face protection.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

· 2.3. Other hazards**· Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· Determination of endocrine-disrupting properties

78-93-3 2-butanone: List II

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: 78-93-3	2-butanone	>95%

Reg.nr.: 02-2119752535-35-XXXX Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066
 01-2119457290-43-XXXX

· **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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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**

Headache

Drowsiness

Dizziness

Nausea

· 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.

· For safety reasons unsuitable extinguishing agents: Water with full jet**· 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.

Keep away from ignition sources.

· **6.2. Environmental precautions:** Prevent seepage into sewage system, workpits and cellars.

· **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**

Handle the substance preferably in closed system

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.

Wear protective gloves/protective clothing/eye protection/face protection.

Application temperature is not higher than 20°C above the surrounding temperature

Conduct spray applications in a ventilated booth or in an exhausted enclosure. Or as an alternative, ensure an adequate level of controlled ventilation (10 to 15 air changes per hour) and wear a respiratory protective device according to EN140 with filter type A or better.

additional to professional application with multiple and/or significant contact

limit the exposure to 4 hours

Open and handle receptacle with care.

Clean the pipe before decoupling

· **General protective and hygienic measures:** Keep good industrial hygiene.

· **7.2. Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **Information about storage in one common storage facility:** Observe the national regulations.

· **Further information about storage conditions:** Store only outside or in explosion proof rooms.

· **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:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs**

78-93-3 2-butanone

Dermal DNEL long term 1,161 mg/kg (human being)

Inhalative DNEL long term 600 mg/m³ (human being)

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· PNECs**78-93-3 2-butanone**

PNEC- Freshwater	55.8 mg/l (not specified)
PNEC-seawater	55.8 mg/l (not specified)
PNEC-Freshwater sediment	284.7 mg/kg (not specified)
PNEC-Seawater sediment	284.7 mg/kg (not specified)
PNEC-soil	22.5 mg/kg (not specified)
PNEC-wastewater treatment plant	709 mg/l (not specified)

· CAS No. Designation of material % Type Value Unit**141-78-6 Acetic ether**

IOELV (INT)	Short-term value: 1468 mg/m ³ , 400 ppm Long-term value: 734 mg/m ³ , 200 ppm
AGW (Germany)	Long-term value: 730 mg/m ³ , 200 ppm 2(I);DFG, EU, Y

26471-62-5 2,4 / 2,6-toluene-diisocyanate (isomeres)

MAK (Germany)	Long-term value: 0.007 mg/m ³ , 0.001 ppm vgl. Abschn.XII
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· 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

· 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:

Filter A

At spray application respiratory protection must be worn.

· Hand protection Protective gloves**· Material of gloves** B Polyethylenylon: BarrierTM (0,062 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**

Liquid

· Colour:

According to product specification

· Odour:

Fruit-like

· Odour threshold:

Not determined.

· Melting point/freezing point:

-86.3 °C

· Boiling point or initial boiling point and boiling range

>76 °C

· Flammability

Highly flammable.

· Lower and upper explosion limit

1.8 Vol % (78-93-3 2-butanone)

· Lower:

11.5 Vol % (78-93-3 2-butanone)

· Upper:

-4 °C (78-93-3 2-butanone)

· Flash point:

514 °C (78-93-3 2-butanone)

· Auto-ignition temperature:

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· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	Not determined.
· Kinematic viscosity	ca. 10 mPas
· Dynamic at 20 °C:	Brookfield (1 / 20 rpm)
· Solubility	
· water at 20 °C:	290 g/l
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	105 hPa (78-93-3 2-butanone)
· Density and/or relative density	
· Density at 20 °C:	ca. 0.82 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 is not explosive. However, formation of explosive air/vapour mixtures are possible.
· 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	Highly flammable liquid and vapour.
· 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.**10.5. Incompatible materials:** No further relevant information available.*(Contd. on page 6)*

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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:**

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Oral LD₅₀ >2,193 mg/kg (rat)

Dermal LD₅₀ >5,000 mg/kg (rabbit)

Inhalative LC₅₀ /4 h 34 mg/l (rat)

LC₅₀ /4 h >5,000 ppm (rat)

- **Primary irritant effect:**

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

- **Serious eye damage/irritation** Causes serious eye irritation.

- **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** May cause drowsiness or dizziness.

- **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** Unnecessary

- **Endocrine disrupting properties**

78-93-3 2-butanone: List II

*** SECTION 12: Ecological information**

- **12.1. Toxicity**

- **Aquatic toxicity:**

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LC₅₀ 2,990 mg / l / 96h (Fathead minnow - Pimephales promelas)

EC₅₀ 308 mg / l / 48h (water flea - daphnia)

EC₅₀ 1,972 mg / l / 72h (green algae-*Ps. kirchneriella subcapitata*)

- **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** For information on endocrine disrupting properties see section 11.

- **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

07 03 04* other organic solvents, washing liquids and mother liquors

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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.

SECTION 14: Transport information· **14.1. UN number or ID number**

UN1993

· **ADR, IMDG, IATA**· **14.2. UN proper shipping name**· **DOT**

Flammable liquids, n.o.s. (Methyl ethyl ketone, ETHYL ACETATE)

· **ADR**

1993 FLAMMABLE LIQUID, N.O.S. (Methyl ethyl ketone, ETHYL ACETATE)

· **IMDG, IATA**

FLAMMABLE LIQUID, N.O.S. (Methyl ethyl ketone)

· **14.3. Transport hazard class(es)**

3 Flammable liquids.

· **Class**

3

· **Label**· **14.4. Packing group**

II

· **ADR, IMDG, IATA**

Not applicable.

· **14.5. Environmental hazards:**· **14.6. Special precautions for user**

Warning: Flammable liquids.

· **Hazard identification number (Kemler code):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **14.7. Maritime transport in bulk according to IMO instruments**

Not applicable.

· **ADR**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category**

2

· **Tunnel restriction code**

D/E

· **IMDG**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

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.· **Seveso category P5c** FLAMMABLE LIQUIDS· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t· **Regulation (EC) No 1907/2006 - REACH, ANNEX XVII** Conditions of restriction: 3· **Regulation (EU) No 649/2012**

None of the ingredients is listed.

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- **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**

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

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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]:** <1,200.0 g/l

- **VOC - 2010/75/EU [%]:** <100.00 %

- **VOC - carbon content [g C/kg]:** 644 g C/kg

- **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.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

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

- **Version number of previous version:** 9.0

- **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

Flam. Liq. 2: Flammable liquids – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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