



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

Printing date 08.03.2023



Version-No. 16 (replaces version 15)

Revision: 08.03.2023

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

- **1.1. Product identifier**
- Trade name / Article-No: **KLEIBERIT 831.0**
- UFI: 9NHF-V0RT-Q00M-YYDS
- **1.2. Relevant identified uses of the substance / mixture or uses advised against**
For professional users only.
- **Application of the substance / the mixture**
Solvents
Coating compound/ Surface coating/ paint
- **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 Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Carc. 2 H351 Suspected of causing cancer.
STOT SE 3 H336 May cause drowsiness or dizziness.
- **2.2. Label elements**
- **Hazard pictograms**


GHS07 GHS08
- **Signal word** Warning
- **Hazard-determining components of labelling:**
dichloromethane
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H336 May cause drowsiness or dizziness.

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- **Precautionary statements**

- P260 Do not breathe vapours.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves / eye 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.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

- **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: 75-09-2 Reg.nr.: 01-2119480404-41-XXXX	dichloromethane Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H336	>95%
CAS: 64-17-5 Reg.nr.: 02-2119752552-39-XXXX	Ethanol Flam. Liq. 2, H225; Eye Irrit. 2, H319	<2%

- **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:**

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

- **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.

- **5.2. Special hazards arising from the substance or mixture**

In case of fire, the following can be released:
Hydrogen chloride (HCl)

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Phosgene gas
Carbon monoxide
Chlorine

· **5.3. Advice for firefighters**

- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

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:** Do not allow to enter surface or ground water.

- **6.3. Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.

Dispose contaminated material as waste according to item 13.

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**

Appropriate regular employee training.

Handle the substance preferably in closed system

Enclosure or extractor facilities are required.

Not less than 5 -15 air exchanges per hour

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.

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.

Avoid splashes or spray in enclosed areas.

regular check up, maintenance and cleaning of equipment and machines

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

Avoid contact with the skin.

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 AX or better.

if possible use tools with long handles

Clean the pipe before decoupling

- **Information about fire - and explosion protection:**

Dichloromethane is under most application conditions at normal temperatures not a flammable liquid. It has no measurable flash point, but with sufficient mass it will build a combustible air-vapour-mixture, if enough ignition energy will be available.

- **General protective and hygienic measures:**

Avoid contact with the eyes and skin.

Keep good industrial hygiene.

- **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****75-09-2 dichloromethane**

Dermal DNEL long term 12 mg/kg (human being)

Inhalative DNEL short term 706 mg/m³ (human being)DNEL long term 353 mg/m³ (human being)**64-17-5 Ethanol**

Dermal DNEL long term 343 mg/kg (human being)

Inhalative DNEL short term 1,900 mg/m³ (human being)DNEL long term 950 mg/m³ (human being)· **PNECs****75-09-2 dichloromethane**

PNEC- Freshwater 0.31 mg/l (not specified)

PNEC-seawater 0.031 mg/l (not specified)

PNEC-periodic release 0.27 mg/l (not specified)

PNEC-Freshwater sediment 2.57 mg/kg (not specified)

PNEC-Seawater sediment 0.26 mg/kg (not specified)

PNEC-soil 0.33 mg/kg (not specified)

PNEC-wastewater treatment plant 26 mg/l (not specified)

64-17-5 Ethanol

PNEC- Freshwater 0.96 mg/l (not specified)

PNEC-seawater 0.79 mg/l (not specified)

PNEC-Freshwater sediment 3.6 mg/kg (not specified)

PNEC-Seawater sediment 2.9 mg/kg (not specified)

PNEC-soil 0.63 mg/kg (not specified)

PNEC-wastewater treatment plant 580 mg/l (not specified)

· **Ingredients with biological limit values:****75-09-2 dichloromethane**

BGW (Germany) 500 µg/L

Untersuchungsmaterial: Vollblut

Probennahmezeitpunkt: unmittelbar nach Exposition

Parameter: Dichlormethan

· **CAS No. Designation of material % Type Value Unit****75-09-2 dichloromethane**IOELV (INT) Short-term value: 706 mg/m³, 200 ppmLong-term value: 353 mg/m³, 100 ppm

Skin

AGW (Germany) Long-term value: 180 mg/m³, 50 ppm

2(II);DFG, H, Z

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64-17-5 Ethanol

AGW (Germany) Long-term value: 380 mg/m³, 200 ppm
4(II);DFG, Y

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:** Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation:

Organic gases/vapors (boiling point <'less than' 149 °F/65 °C): eg.

¹ (F)OV - (Full Facepiece) Organic Vapor Respirator² **Europe:** EN 371 Filtertype AX, brown

· **Hand protection** Protective gloves

· **Material of gloves** D butyl rubber - BR: ChemTek™ (0,7 mm)

· **Penetration time of glove material** D: 120 - 140 min

· **Not suitable are gloves made of the following materials:** G Chloroprene rubber - CR: Neotop® (0.75 mm)

· **Eye/face protection** Safety glasses

· **Body protection:** Protective work clothing

· **Environmental exposure controls**

Waste air is to be released into the atmosphere only via suitable separators.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****General Information**

· **Physical state**

Fluid

· **Colour:**

Whitish

· **Odour:**

Sweetish

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

-95.1 °C

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

40 °C

· **Flammability**

Not applicable.

· **Lower and upper explosion limit**

· **Lower:**

13 Vol %

· **Upper:**

22 Vol %

· **Flash point:**

Not applicable.

· **Ignition temperature:**

605 °C

· **Decomposition temperature:**

Not determined.

· **pH**

Not determined.

· **Viscosity:**

· **Kinematic viscosity**

Not determined.

· **Dynamic:**

Not determined.

· **Solubility**

· **water at 20 °C:**

20 g/l

· **Partition coefficient n-octanol/water (log value)**

Not determined.

· **Vapour pressure at 20 °C:**

453 hPa

· **Density and/or relative density**

· **Density at 20 °C:**

ca. 1.33 g/cm³

· **Relative density**

Not determined.

· **Vapour density**

Not determined.

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· 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.

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· 10.3. Possibility of hazardous reactions

Reacts with acids, alkalis and oxidising agents.

Reacts spontaneously with alkaline metals.

· 10.4. Conditions to avoid

No further relevant information available.

· 10.5. Incompatible materials:

No further relevant information available.

· 10.6. Hazardous decomposition products:

Hydrogen chloride (HCl)

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:

75-09-2 dichloromethane

Oral LD₅₀ >2,000 mg/kg (rat)Dermal LD₅₀ >2,000 mg/kg (rat) (OECD-Prüfrichtlinie 402)Inhalative LC₅₀ /4 h 88 mg/l (rat)

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Trade name / Article-No: KLEIBERIT 831.0*(Contd. of page 6)***64-17-5 Ethanol**Oral LD₅₀ 10,470 mg/kg (rat)Dermal LD₅₀ 20,000 mg/kg (rabbit)Inhalative LC₅₀ /4 h 116.9 mg/l (rat)

- **Skin corrosion/irritation** Causes skin irritation.
- **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** Suspected of causing cancer.
- **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**
- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

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

75-09-2 dichloromethaneLC₅₀ 193 mg / l / 96h (Fathead minnow - Pimephales promelas)

97 mg / l / 96h (fish)

LC₅₀ 27 mg / l / 48h (water flea - daphnia)

97 mg / l / 48h (fish)

EC₅₀ 220 mg / l / 48h (water flea - daphnia)IC₅₀ >662 mg / l / 72h (algae)**64-17-5 Ethanol**LC₅₀ 13,000 mg / l / 96h (Fathead minnow - Pimephales promelas) (OECD 203)EC₅₀ 12,340 mg / l / 48h (water flea - daphnia)

Methode ASTM E 729-80 Süßwasser

EC₅₀ 858 mg / l / 24h (water flea - daphnia) (OECD 202)EC₅₀ 275 mg / l / 72h (algae)

Methode: OECD 201

- **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**
- **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.

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· **Additional ecological information:**· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 Danger to drinking water if even small quantities leak into the ground.
 Do not allow product to reach sewage system or any water course.

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.
 Must be specially treated adhering to official regulations.

· **European waste catalogue**

07 02 03* organic halogenated solvents, washing liquids and mother liquors

14 06 02* other halogenated solvents and solvent mixtures

· **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**

UN1593

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

DICHLOROMETHANE solution

· **ADR**

1593 DICHLOROMETHANE solution

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

6.1 Toxic substances.

· **Label**

6.1

· **14.4. Packing group**· **ADR, IMDG, IATA**

III

· **14.5. Environmental hazards:**

Not applicable.

· **14.6. Special precautions for user**

Warning: Toxic substances.

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

60

· **EMS Number:**

F-A,S-A

· **Segregation groups**

(SGG10) Liquid halogenated hydrocarbons

· **Stowage Category**

A

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

Not applicable.

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

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **Transport category**

2

· **Tunnel restriction code**

E

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

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

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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, 59
- **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 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations:** Restricted to professional users.
- **VOC - 2010/75/EU [g/L]:** <1,300.0 g/l
- **VOC - 2010/75/EU [%]:** <98.00 %
- **VOC - carbon content [g C/kg]:** 137.8 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.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
- **Department issuing SDS:** Safety & Environment
- **Version number of previous version:** 15
- **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

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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
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

EU