Safety data sheet

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

Printing date 28.02.2023 Version-No. 2 (replaces version 1) Revision: 28.02.2023

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

· **1.1. Product identifier**

· **Trade name / Article-No: KLEIBERIT *807.0 ME***

· **UFI:** FN3Q-50WC-1004-GAAC

· **1.2. Relevant identified uses of the substance / mixture or uses advised against**
For professional users only.

· **Application of the substance / the mixture** Hardening agent/ Curing agent

· **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**

Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

· **2.2. Label elements**

· **Hazard pictograms**

GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labelling:**
aliphatic polyisocyanate, based on HDI
Polyoxyethylene tridecyl ether phosphate
N,N-Dimethylcyclohexylamine
hexamethylene-1,6-diisocyanate

· **Hazard statements**
H332 Harmful if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage.

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H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

· **Precautionary statements**

P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves / eye protection / face protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
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.

· **Additional information:**
Contains isocyanates. May produce an allergic reaction.

· **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: 28182-81-2 Reg.nr.: 01-2119485796-17-XXXX	aliphatic polyisocyanate, based on HDI Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	~96%
CAS: 9046-01-9	Polyoxyethylene tridecyl ether phosphate Eye Dam. 1, H318; Skin Irrit. 2, H315; Aquatic Chronic 3, H412	~3%
CAS: 98-94-2 Reg.nr.: 01-2119533030-60-XXXX	N,N-Dimethylcyclohexylamine Flam. Liq. 3, H226; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B, H314; Aquatic Chronic 2, H411	<1%
CAS: 822-06-0 Reg.nr.: 01-2119457571-37-XXXX	hexamethylene-1,6-diisocyanate Acute Tox. 1, H330; Resp. Sens. 1, H334; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Resp. Sens. 1; H334: C ≥ 0.5 % Skin Sens. 1; H317: C ≥ 0.5 %	<0.1%

· **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**

· **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**
In case of unconsciousness place patient stably in side position for transportation.

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Take affected persons into fresh air and keep quiet.

· **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. Then 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**
In case of fire, the following can be released:
Isocyanates
Nitrogen oxides (NOx)
Traces: Hydrogen cyanide (HCN)

· **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.
Use respiratory protective device against the effects of fumes/dust/aerosol.

· **6.2. Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.

· **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
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.

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Wear protective gloves/protective clothing/eye protection/face protection.
Avoid contact with the skin.
Handling procedures must be well documented.

· **General protective and hygienic measures:**
ensure that eye rinse stations and safety showers are close to workplace.

· **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**

28182-81-2 aliphatic polyisocyanate, based on HDI
Inhalative DNEL short term 1 mg/m3 (human being)
DNEL long term 0.5 mg/m3 (human being)

98-94-2 N,N-Dimethylcyclohexylamine
Inhalative DNEL short term 35 mg/m3 (human being)
DNEL long term 35 mg/m3 (human being)

· **PNECs**

28182-81-2 aliphatic polyisocyanate, based on HDI

PNEC- Freshwater	0.127 mg/l (not specified)
PNEC-seawater	0.0127 mg/l (not specified)
PNEC-Freshwater sediment	266,701 mg/kg (not specified)
PNEC-Seawater sediment	26,670 mg/kg (not specified)
PNEC-soil	53.2 mg/kg (not specified)
PNEC-wastewater treatment plant	38.28 mg/l (not specified)

98-94-2 N,N-Dimethylcyclohexylamine

PNEC- Freshwater	0.002 mg/l (not specified)
PNEC-seawater	0.0002 mg/l (not specified)
PNEC-Freshwater sediment	0.0211 mg/kg (not specified)
PNEC-Seawater sediment	0.00211 mg/kg (not specified)
PNEC-soil	0.00305 mg/kg (not specified)
PNEC-wastewater treatment plant	20.6 mg/l (not specified)

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· **Ingredients with biological limit values:**

822-06-0 hexamethylene-1,6-diisocyanate
BGW (Germany) 15 µg/g Kreatinin
Untersuchungsmaterial: Urin
Probennahmezeitpunkt: Expositionsende bzw. Schichtende
Parameter: Hexamethylendiamin (nach Hydrolyse)

· **CAS No. Designation of material % Type Value Unit**

822-06-0 hexamethylene-1,6-diisocyanate
AGW (Germany) Long-term value: 0.035 mg/m³, 0.005 ppm
1;=2=(I);DFG, 11, 12, Sa

· **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:** Filter A (DIN EN 14 387)
· **Hand protection**
Protective gloves
Avoid direct contact with the chemical/ the product/ the preparation by organisational measures.
· **Material of gloves** A Nitrile rubber - NBR: AlphaTec® (> 0,4 mm)
· **Eye/face protection** Tightly sealed goggles
· **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:**	Colourless
· **Odour:**	Odourless
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Undetermined.
· **Boiling point or initial boiling point and boiling range**	>160 °C
· **Flammability**	Not applicable.
· **Lower and upper explosion limit**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Flash point:**	>150 °C
· **Ignition temperature:**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **pH**	Not determined.
· **Viscosity:**	
· **Kinematic viscosity**	Not determined.
· **Dynamic at 20 °C:**	ca. 1.150 mPas

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· **Solubility**	
· **water:**	Not miscible or difficult to mix.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure:**	Not determined.
· **Density and/or relative density**	
· **Density at 20 °C:**	ca. 1.13 g/cm³
· **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.
· **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.

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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** Harmful if inhaled.
· **LD/LC$_{50}$ values relevant for classification:**

28182-81-2 aliphatic polyisocyanate, based on HDI

Oral	LD_{50}	>5,000 mg/kg (rat) weibliche Ratte >2500 mg/kg
Dermal	LD_{50}	>2,000 mg/kg (rabbit) (OECD 402) >2,000 mg/kg (rat) (OECD 402)
Inhalative	LC_{50} /4 h	15 mg/l (rat)

98-94-2 N,N-Dimethylcyclohexylamine

Oral	LD_{50}	272 mg/kg (rat)
Dermal	LD_{50}	>400 mg/kg (rat)
Inhalative	LC_{50} /4 h	4.45 mg/l (rat)

· **Skin corrosion/irritation** Causes skin irritation.
· **Serious eye damage/irritation** Causes serious eye damage.
· **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** May cause respiratory irritation.
· **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:**

28182-81-2 aliphatic polyisocyanate, based on HDI

EC_{50} >100 mg / l / 48h (water flea - daphnia)

98-94-2 N,N-Dimethylcyclohexylamine

EC_{50} 75 mg / l / 48h (water flea - daphnia)

EC_{50} >2 mg / l / 72h (algae)

IC_{50} 22-46 mg / l / 72h (fish)

· **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.

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· **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 09* waste adhesives and sealants containing organic solvents or other hazardous substances
08 05 01* waste isocyanates
· **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

· **Directive 2012/18/EU - Seveso-III:**
· **Named dangerous substances - ANNEX I** None of the ingredients is included.

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· **Regulation (EC) No 1907/2006 - REACH, ANNEX XVII** Conditions of restriction: 3, 74
· **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]:** 0.0 g/l
· **VOC - 2010/75/EU [%]:** 0.00 %

· **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**
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic 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.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

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H412 Harmful to aquatic life with long lasting effects.
EUH204 Contains isocyanates. May produce an allergic reaction.

· **Department issuing SDS:** Safety & Environment
· **Version number of previous version:** 1
· **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. 3: Flammable liquids – Category 3
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 1: Acute toxicity – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3