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

Printing date 10.02.2023 Version-No. 3 (replaces version 2) Revision: 10.02.2023

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

- · 1.1. Product identifier
- · Trade name / Article-No: KLEIBERIT 706.2.03 ME
- 1.2. Relevant identified uses of the substance / mixture <u>or</u> 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)

SECTION 2: Hazards identification

- · 2.1. Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008 GHS/CLP

The product is not classified as hazardous to health or environment according to the CLP regulation.

- · 2.2. Label elements
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Additional information:

Safety data sheet available on request.

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

<0.1%

%

CAS: 5873-54-1 diphenylmethane-2,4'-diisocyanate Reg.nr.: 01-2119480143-45-XXXX Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox.

4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317;

STOT SE 3, H335, EUH204

Specific concentration limits: Skin Irrit. 2; H315: $C \ge 5$ % Eye Irrit. 2; H319: $C \ge 5$ %

Resp. Sens. 1; H334: C ≥ 0.1 %

STOT SE 3; C ≥ 5 %

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· 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: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

After contact with the molten product, cool rapidly with cold water.

Generally the product does not irritate the skin.

- · After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing:

Rinse out mouth with plenty of water.

Seek medical treatment.

· 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 Not required.
- · 6.2. Environmental precautions: No special measures required.
- 6.3. Methods and material for containment and cleaning up: Pick up mechanically.
- · 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 Prevent formation of dust.
- · 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.

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SECTION 8: Exposure controls/personal protection

- · 8.1. Control parameters
- · Ingredients with limit values that require monitoring at the workplace:
- · DNELs

5873-54-1 diphenylmethane-2,4'-diisocyanate

Dermal DNEL short term 50 mg/kg (human being)
Inhalative DNEL short term 0.1 mg/m3 (human being)
DNEL long term 0.05 mg/m3 (human being)

· PNECs

5873-54-1 diphenylmethane-2,4'-diisocyanate

PNEC- Freshwater 1 mg/l (not specified)
PNEC-seawater 0.1 mg/l (not specified)
PNEC-soil 1 mg/kg (not specified)
PNEC-wastewater treatment plant 1 mg/l (not specified)

CAS No. Designation of material % Type Value Unit

5873-54-1 diphenylmethane-2,4'-diisocyanate

AGW (Germany) Long-term value: 0.05 mg/m³

1;=2=(I);AGS, 11, 12

- · 8.2. Exposure controls 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:

Not necessary if room is well-ventilated.

Filter A/P2 (EN 14387)

Hand protection

Protective gloves

Heat resistant gloves

· Material of gloves

Leather gloves

Synthetic rubber gloves

- · Eye/face protection Safety glasses
- · Body protection: Protective work clothing
- Thermal hazards Risk of burns during thermal processing.

SECTION 9: Physical and chemical properties

- · 9.1. Information on basic physical and chemical properties
- · General Information
- · Colour: According to product specification

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· Odour: Light

• Odour threshold:
• Melting point/freezing point:

Not determined.

Undetermined.

Boiling point or initial boiling point and boiling range

range Undetermined.
• Flammability Not determined.

· Lower and upper explosion limit

Lower: Not determined.
Upper: Not determined.
Flash point: Not applicable.
Ignition temperature: >300 °C

Decomposition temperature: Not determined.pH Not applicable.

• Viscosity: At room temperature: not applicable

700 0 00 1/F

Kinematic viscosityDynamic:Not applicable.Not applicable.

Solubility

· water: Insoluble.

Partition coefficient n-octanol/water (log value)
 Vapour pressure:
 Not determined.
 Not applicable.

Density and/or relative density

Density at 20 °C:
 Relative density
 Vapour density
 Particle characteristics
 ca. 1.1 g/cm³
 Not determined.
 Not applicable.
 See item 3.

· 9.2. Other information

· Appearance:

· Form: Solid

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.

Void

Change in condition

Softening temperature / range:
 Evaporation rate
 ca. 70 °C
 Not applicable.

· 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

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· 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.
- · 10.6. Hazardous decomposition products: No dangerous decomposition products known.
- · Additional information:

When hotmelt adhesives are melted and applied, vapours are set free and an unpleasant odour can occur, even if the recommended working temperature has been observed. Moreover if the prescribed working temperature is exceeded over a longer period, harmful decomposition products can develop. Precautions should be taken to eliminate the vapours, e.g. by using a suitable ventilation system.

Therefore measures for the elimination of the vapours have to be taken, e.g. by means of an appropriate ventilation/ exhaust device.

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:

5873-54-1 diphenylmethane-2,4'-diisocyanate

Oral LD $_{50}$ >2,000 mg/kg (rat) (84/449/EWG, B.1) Dermal LD $_{50}$ >9,400 mg/kg (rabbit) (OECD 402) Inhalative LC $_{50}$ /4 h 1.5 mg/l (rat) (Calculation (ATE))

· Note:

diphenylmethane-diisocyanate:

The test atmosphere generated in the animal study is not representative of workplace environments, how the substance is placed on the market, and how it can reasonably be expected to be used. Therefore the test result cannot be directly applied for the purpose of assessing hazard. Based on expert judgment and the weight of the evidence, a modified classification for acute inhalation toxicity is justified.

- · 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 Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.

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- · 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:

5873-54-1 diphenylmethane-2,4'-diisocyanate

LC₅₀ >1,000 mg / I / 96h (Zebrafish - Danio rerio)

EC₅₀ >1,000 mg / I / 24h (water flea - daphnia)

IC₅₀ >1,640 mg / I / 72h (Chlorophyceae - Scenedesmus subspicatus)

- · 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: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

SECTION 13: Disposal considerations

- · 13.1. Waste treatment methods
- · Recommendation

Can be burned with household garbage / commercial waste after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

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, ADN, IMDG, IATA

Void

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· 14.2. UN proper shipping name

· DOT, ADR, ADN, 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 (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.
- · 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.

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· Relevant phrases

- Causes skin irritation. H315
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled. H334
- May cause respiratory irritation. H335
- H351 Suspected of causing cancer.
- May cause damage to organs through prolonged or repeated exposure. H373

EUH204 Contains isocyanates. May produce an allergic reaction.

· 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

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

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Resp. Sens. 1: Respiratory sensitisation - Category 1

Skin Sens. 1: Skin sensitisation - Category 1

Carc. 2: Carcinogenicity – Category 2

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

STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2