

**Safety data sheet**
according to WHS Regulations

Printing date 18.03.2022

Version-No. 11

Revision: 17.03.2022

SECTION 1: Identification· **1.1. Product identifier**· Trade name / Article-No: **KLEIBERIT 569.0**· **1.2. Relevant identified uses of the substance / mixture or uses advised against**

Restricted to professional users.

· **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

D - 76356 Weingarten / Baden

Germany

KLEIBERIT Australia Pty Limited

Unit 36, 42-46 Wattle Road

BROOKVALE NSW 2100

Australia

· **Further information obtainable from:**

phone: +49-7244-62-0 (Germany) FAX:

+49-7244-700-0

email: hse@kleiberit.com

phone: +61-2-9907 1411

· **1.4. Emergency telephone number:****+61 2 8014 4558** Australia (English)**+65 3158 1412**

Asia Pacific regional number (English, Bahasa Malaysia, Hindi, Japanese, Korean, Mandarin, Tagalog)

SECTION 2: Hazard Identification· **2.1. Classification of the substance or mixture**· **Classification according to Regulation (EC) No 1272/2008 - GHS/CLP**

Acute Tox. 5 H333 May be harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irritation 2A H319 Causes serious eye irritation.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Carc. 2 H351 Suspected of causing cancer.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 1 H372 Causes damage to the respiratory system through prolonged or repeated exposure.

Route of exposure: Inhalation.

· **2.2. Label elements**· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Danger· **Hazard-determining components of labelling:**

diphenylmethane-2,4'-diisocyanate

diphenylmethane-4,4'-diisocyanate

2,2'-methylenediphenyl diisocyanate

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- **Hazard statements**

- H333 May be harmful if inhaled.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H335 May cause respiratory irritation.
- H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure:
Inhalation.

- **Precautionary statements**

- P260 Do not breathe vapours.
- P280 Wear protective gloves / eye protection.
- P302+P352 IF ON SKIN: Wash with plenty of water and soap.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P314 Get medical advice/attention if you feel unwell.

- **2.3. Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition and information on ingredients

- **3.2 Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

| Registry-No's | Identification / Classification GHS-CLP | % |
|---------------|---|-------|
| 5873-54-1 | diphenylmethane-2,4'-diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 1, H372; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irritation 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335; Acute Tox. 5, H303 Specific concentration limits: Skin Irrit. 2; H315: C ≥ 5 % Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; C ≥ 5 % | < 20% |
| 101-68-8 | diphenylmethane-4,4'-diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 1, H372; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irritation 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335; Acute Tox. 5, H303 Specific concentration limits: Skin Irrit. 2; H315: C ≥ 5 % Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; C ≥ 5 % | < 15% |
| 2536-05-2 | 2,2'-methylenediphenyl diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 1, H372; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irritation 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335; Acute Tox. 5, H303 Specific concentration limits: Skin Irrit. 2; H315: C ≥ 5 % Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; C ≥ 5 % | < 1% |

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First Aid Measures

- **4.1. Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
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.
Immediately wash with water and soap and rinse thoroughly.
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**
Asthma attacks
Allergic reactions
- **4.3. Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire Fighting 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 (NO_x)
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:** No special measures required.
- **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.
Take up mechanically; cover residues with wet, liquidbinding material (saw dust, universal binder - diatomite, sand). Take up after 1 hour in receptacles, don't close tight (development of CO₂ !). Be aware that sufficient moisture is present and keep outdoors for several days.
- **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

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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.

Not less than 3-5 air exchanges per hour

Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.

Spraying: in vented cabin with laminar air flow

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

Use only in well ventilated areas.

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

Avoid contact with skin and eyes.

It is advised against using the product if there is a sensitivity of the airways or skin (asthma, chronic bronchitis, chronic skin disease)

additional to professional application with multiple and/or significant contact

limit the exposure to 4 hours

· **General protective and hygienic measures:** Immediately remove all soiled and contaminated clothing

· **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:** Protect from humidity and water.

· **7.3. Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls and personal protection

· **8.1. Control parameters**

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

| CAS No. | Designation of material | % | Type | Value | Unit |
|---------|-------------------------|---|------|-------|------|
|---------|-------------------------|---|------|-------|------|

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

WES (Australia) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen, as -NCO

WES (New Zealand) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
as -NCO; vapours, mist, dust; dsen, rsen

101-68-8 diphenylmethane-4,4'-diisocyanate

WES (Australia) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen; as -NCO

WES (New Zealand) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
as -NCO; vapours, mist, dust; dsen, rsen

2536-05-2 2,2'-methylenediphenyl diisocyanate

WES (Australia) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen, as -NCO

WES (New Zealand) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
as -NCO; vapours, mist, dust; dsen, rsen

· **8.2. Exposure controls**

limit the exposure to:

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8 hours

additional to professional application with multiple and/or significant contact
limit the exposure to 4 hours

- **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:

Filter ABEK (DIN EN 14 387)

At spray application respiratory protection must be worn.

- **Protection of hands:** Protective gloves

- **Material of gloves A** Nitrile rubber - NBR: AlphaTec® (> 0,4 mm)

- **Eye 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**

- **Appearance:**

Form: Highly viscous
Colour: Cream coloured

- **Odour:** Light

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: >200 °C

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Not applicable.

- **Ignition temperature:** >200 °C

- **Decomposition temperature:** >140 °C

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

- **Vapour pressure at 20 °C:** 0 hPa

- **Density at 20 °C:** ca. 1.05 g/cm³

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**

Dynamic at 20 °C: ca. 400.000 mPas

Kinematic: Not determined.

- **9.2. Other information**

No further relevant information available.

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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:** Isocyanates

SECTION 11: Toxicological information

- **11.1. Information on toxicological effects**
- **Acute toxicity**
May be harmful if inhaled.
- **LD/LC₅₀ values relevant for classification:**
 - 5873-54-1 diphenylmethane-2,4'-diisocyanate**
 - Oral LD₅₀ >2,000 mg/kg (rat) (84/449/EWG, B.1)
 - Dermal LD₅₀ >9,400 mg/kg (rabbit) (OECD 402)
 - Inhalative LC₅₀ /4 h 11 mg/l (Ratte) (Calculation (ATE))
 - 101-68-8 diphenylmethane-4,4'-diisocyanate**
 - Oral LD₅₀ >2,000 mg/kg (rat) (84/449/EWG, B.1)
 - Dermal LD₅₀ >9,400 mg/kg (rabbit) (OECD 402)
 - Inhalative LC₅₀ /4 h 11 mg/l (x00) (Calculation (ATE))
 - 2536-05-2 2,2'-methylenediphenyl diisocyanate**
 - Oral LD₅₀ >2,000 mg/kg (rat)
 - Dermal LD₅₀ >9,400 mg/kg (rabbit)
 - Inhalative LC₅₀ /4 h 11 mg/l (Ratte) (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.
- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
- **Additional toxicological information:**
- **Repeated dose toxicity**
- **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 respiratory irritation.

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- **STOT-repeated exposure**
Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure:
Inhalation.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1. Toxicity**
- **Aquatic toxicity:**
 - 5873-54-1 diphenylmethane-2,4'-diisocyanate**
LC₅₀ >1,000 mg / l / 96h (Zebrafish - Danio rerio)
EC₅₀ >1,000 mg / l / 24h (water flea - daphnia)
IC₅₀ >1,640 mg / l / 72h (Chlorophyceae - Scenedesmus subspicatus)
 - 101-68-8 diphenylmethane-4,4'-diisocyanate**
LC₅₀ >1,000 mg / l / 96h (fish)
EC₅₀ >1,000 mg / l / 24h (water flea - daphnia)
IC₅₀ >1,640 mg / l / 72h (algae)
 - 2536-05-2 2,2'-methylenediphenyl diisocyanate**
LC₅₀ >1,000 mg / l / 96h (fish)
EC₅₀ >1,000 mg / l / 24h (water flea - daphnia)
EC₅₀ >1,640 mg / l / 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.
- **Ecotoxicological 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.
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6. Other adverse effects** No further relevant information available.

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.
- **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**
- **DOT, ADG, IMDG, IATA** Void
- **14.2. UN proper shipping name**
- **ADG, IMDG, IATA** Void
- **14.3. Transport hazard class(es)**
- **DOT**
- **Class** Void
No dangerous good

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- **Class** Void
- **14.4. Packing group** Void
- **DOT, ADG, IMDG, IATA** Void
- **14.5. Environmental hazards:** Not applicable.
- **14.6. Special precautions for user** Not applicable.
- **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code** 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
- **Australian Inventory of Industrial Chemicals**

5873-54-1 diphenylmethane-2,4'-diisocyanate
101-68-8 diphenylmethane-4,4'-diisocyanate

67762-90-7 Siliciumdioxid, Reaktionsprodukt mit Polydimethylsiloxan

68515-49-1 diisodecyl phthalate

2536-05-2 2,2'-methylenediphenyl diisocyanate

6425-39-4 2,2'-dimorpholinyl-diethyl ether
- **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.
- **New Zealand Inventory of Chemicals: (Substances not listed)**

Polyurethane prepolymer
- **National regulations:**
- **Information about limitation of use: For professional use only**
- **Other regulations, limitations and prohibitive regulations:** Restricted to professional users.
- **EU: VOC - Volatile Organic Compounds (Directive 13/1999/EC)**
- **VOC - 2010/75/EU [g/L]:** <16.0 g/l
- **VOC - 2010/75/EU [%]:** <1.50 %
- **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**
H303 May be harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.

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

· **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

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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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 5: Acute toxicity – Category 5

Acute Tox. 4: Acute toxicity – Category 4

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

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

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 1: Specific target organ toxicity (repeated exposure) – Category 1

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