

**Material Safety Data Sheet**
acc. to ISO/DIS 11014

Printing date 11/15/2011

Version-No. 1

Reviewed on 08/10/2011

1 Identification of the substance/mixture and of the company/undertaking· **Product identifier**

- Trade name / Article No: **KLEIBERIT *Reactive PUR HotMelt 702.6***
- Relevant identified uses of the substance / mixture or uses advised against
 - Application of the substance / the preparation Adhesives

· **Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**

KLEBCHEMIE

M.G.Becker GmbH + Co. KG

Max Becker Str. 4

D - 76356 Weingarten / Baden

Germany

· **Information department:**· **Emergency telephone number:**email: hse@kleiberit.com

KLEIBERIT Adhesives USA Inc.

109-B Howie Mine Road, PO Box 1319

Waxhaw, NC 28173

USA

Phone 1-704-843-3339

FAX 1-704-843-4930

1-800-424-9300 (CHEMTREC)

1-800-451-1403 (SARA-HOTLINE)

2 Hazards identification· **Classification of the substance or mixture**· **Classification according to Regulation (EC) No 1272/2008 - GHS/CLP**

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

Carc. 2 H351 Suspected of causing cancer.

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

· **Label elements**· **Labelling according to EU guidelines:**· **Code letter and hazard designation of product:**

Xn Harmful

· **Hazard-determining components of labelling:**

diphenylmethane-4,4'-diisocyanate

· **Risk phrases:**

Limited evidence of a carcinogenic effect.

May cause sensitization by inhalation and skin contact.

· **Safety phrases:**

Do not breathe fumes / aerosol

Avoid contact with skin.

Wear suitable gloves.

In case of accident or if you feel unwell, seek medical advice immediately.

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- **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer.

- Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
- Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
- This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

- **Hazard description (EU):**

- **Hazardous Material (US)**

This material is considered as hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

CAUTION! Harmful

- **Classification system:**

- **NFPA ratings (scale 0 - 4) - USA**



Health = 1

Fire = 1

Reactivity = 0

- **HMIS-ratings (scale 0 - 4) - USA**

Health = 1

Fire = 1

Reactivity = 0

- **CARCINOGENICITY**

diphenylmethane diisocyanate

NTP: No IARC: 3 OSHA: No

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** mixture of synthetic plastics, based on polyurethane

- **Dangerous components:**

CAS NO.	Description	%
CAS: 101-68-8	diphenylmethane-4,4'-diisocyanate	< 2.5%
RTECS: NQ 9350000	Xn R20-40-48/20; Xi R36/37/38-42/43 Carc. Cat. 3 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	

4 First aid measures

- **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.

- **After skin contact:**

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

If skin irritation continues, consult a doctor.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** Seek medical treatment.

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- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed**
Asthma attacks
Allergic reactions
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
 - **For safety reasons unsuitable extinguishing agents:** None
- **Special hazards arising from the substance or mixture**
Nitrogen oxides (NO_x)
Isocyanate
Traces:
Hydrogen cyanide (HCN)
- **Advice for firefighters**
 - **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
See Pos. 8 - Breathing equipment.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Pick up mechanically.
- **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.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
 - **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:** Keep container tightly closed.
 - **Further information about storage conditions:** Protect from humidity and water.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

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- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

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

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

- PEL (USA) Short-term value: C 0.2 mg/m³, C 0.02 ppm

- REL (USA) Short-term value: C 0.2* mg/m³, C 0.02* ppm

- Long-term value: 0.05 mg/m³, 0.005 ppm
*10-min

- TLV (USA) 0.051 mg/m³, 0.005 ppm

- EL (Canada) Short-term value: C 0.01 ppm

- Long-term value: 0.005 ppm

- Skin; S

- TWA (Canada) Short-term value: 0.2 (10 minutes) mg/m³, 0.02 ppm

- Long-term value: 0.05 mg/m³, 0.005 ppm

- IDLH Documentation 8/16/96

- **Additional information:**

- **Engineering Controls (such as ventilation, enclosed process)**

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

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

- Do not inhale gases / fumes / aerosols.

- Keep away from foodstuffs, beverages and feed.

- Store protective clothing separately.

- Immediately remove all soiled and contaminated clothing.

- Wash hands before breaks and at the end of work.

- **Breathing equipment:**

- At spray application respiratory protection must be worn.

- Filters OV/N95

- **Protection of hands:** Heat resistant gloves

- **Material of gloves:** Leather gloves

- **Eye protection:** Goggles recommended during refilling.

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:** Solid

- **Color:** White

- **Odor:** Light

- **Change in condition**

- **Boiling point/Boiling range:** Undetermined.

- **Fusion temperature / range:** 70°C (158 °F) (ring + ball)

- **Flash Point:** Not applicable.

- **Ignition Temperature:** > 300°C (> 572 °F)

- **Auto Igniting:** Product is not selfigniting.

- **Danger of Explosion:** Product does not present an explosion hazard.

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- **Density at 20°C (68 °F):** 1.1 g/cm³ (9.18 lbs/gal)
- **Solubility in / Miscibility with**
 - **Water:** Insoluble.
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
 - **Chemical stability**
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Isocyanate

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**
 - **LD/LC50 values that are relevant for classification:**

101-68-8 diphenylmethane-4,4'-diisocyanate
Oral LD50 15000 mg/kg (rat)
 - **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
 - **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful

12 Ecological information

- **Toxicity**
 - **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
 - **Other information:** The product is difficultly biodegradable.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:**
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
- **Uncleaned packagings:**
 - **Recommendation:**
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

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14 Transport information

- DOT, IMDG, IATA
 - Class No dangerous good
- Environmental hazards:
 - Marine pollutant: No
- Special precautions for user Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
See position 2 - Hazards Identification

- Sara - USA:

- Section 313 (Specific toxic chemical listings):

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

- TSCA (Toxic Substances Control Act) - USA:

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

- Proposition 65 - USA

- Chemicals known to cause cancer:

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

- Chemicals known to cause developmental toxicity (Prop 65):

None of the ingredients is listed.

- EPA (Environmental Protection Agency):

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

- IARC (International Agency for Research on Cancer) - USA:

101-68-8 diphenylmethane-4,4'-diisocyanate: Group 3

- NTP (National Toxicology Program) - USA:

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH) - USA:

101-68-8 diphenylmethane-4,4'-diisocyanate: see pos. 8

- NIOSH-Ca (National Institute for Occupational Safety and Health) - California/USA:

None of the ingredients is listed.

- OSHA-Ca (Occupational Safety & Health Administration) - California/USA:

None of the ingredients is listed.

- National regulations:

- Other regulations, limitations and prohibitive regulations Restricted to professional users.

- VOC - Volatile Organic Compounds

- US (40CFR part59): VOC content [g / L] solid, 0 g / L

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

- USA: Relevant labels and warnings HAZCOM LABEL: CAUTION! HARMFUL.

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- **Relevant phrases**

- 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.
 - H373 May cause damage to organs through prolonged or repeated exposure.
-
- R20 Harmful by inhalation.
 - R36/37/38 Irritating to eyes, respiratory system and skin.
 - R40 Limited evidence of a carcinogenic effect.
 - R42/43 May cause sensitization by inhalation and skin contact.
 - R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

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

- **Contact:** Dr. Wolfgang Stüber

- **Abbreviations and acronyms:**

- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organization
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMS: Hazardous Materials Identification System (USA)
- MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

- *** Data compared to the previous version altered.**