



Safety Data Sheet

acc. to OSHA HCS

Printing date 01/23/2020


Version-No. 4

Reviewed on 01/23/2020

1 Identification

- **1.1. Product identifier**
- **Trade name / Article No: KLEIBERIT 707.9.10**
- **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:**
KLEBCHEMIE KLEIBERIT Adhesives USA Inc.
M.G.Becker GmbH + Co. KG 109-B Howie Mine Road, PO Box 1319
Max-Becker-Str. 4 Waxhaw, NC 28173
D - 76356 Weingarten / Baden USA
Germany
- **Information department:**
e-mail: hse@kleiberit.com Phone 1-704-843-3339
FAX 1-704-843-4930
- **1.4. Emergency telephone number:**
+1 866 928 0789 USA (English, French, Spanish)
+1 215 207 0061 Americas regional number (English, Spanish, Portuguese)

2 Hazard(s) identification

- **2.1. 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.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Carc. 2 H351 Suspected of causing cancer.
STOT RE 2 H373 May cause damage to the respiratory system through prolonged or repeated exposure.
Route of exposure: Inhalation.
- **2.2. Label elements**
- **Hazard pictograms**

GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**
diphenylmethane-4,4'-diisocyanate
- **Hazard statements**
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H373 May cause damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
- **Precautionary statements**
P261 Avoid breathing vapours.
P280 Wear protective gloves.
P314 Get medical advice/attention if you feel unwell.

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· NFPA-ratings (scale 0 - 4) - USA:



Health = 1
Fire = 0
Reactivity = 0

· HMIS-ratings (scale 0 - 4) - USA:



Health = *0
Fire = 0
Reactivity = 0

· CARCINOGENICITY

diphenylmethane diisocyanate

NTP: No IARC: 3 OSHA: No

· 2.3. Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· 3.2 Mixtures

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

· Dangerous components:

Registry-No's	Identification / Classification GHS-CLP	%
CAS: 13463-67-7	titanium dioxide Carc. 2, H351	3-5%
CAS: 101-68-8 RTECS: NQ 9350000	diphenylmethane-4,4'-diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	<2.5%

· Additional information:

Titanium dioxide is not present as a powder and inseparably bound in the product.

For the wording of the listed hazard phrases refer to section 16.

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.

· 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.

· After swallowing: Immediately call a doctor.

· Information for doctor:

· 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.

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5 Fire-fighting measures

- **5.1. Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing 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:
Nitrogen oxides (NO_x)
Isocyanate
Traces: Hydrogen cyanide (HCN)
- **5.3. Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **6.1. Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Use respiratory protective device against the effects of fumes/dust/aerosol.
See Pos. 8 - Breathing equipment.
- **6.2. Environmental precautions:** No special measures required.
- **6.3. Methods and material for containment and cleaning up:**
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.
- **Protective Action Criteria for Chemicals**
- **PAC-1:**
24937-78-8 Ethyl vinyl acetate copolymer: 30 mg/m³
13463-67-7 titanium dioxide: 30 mg/m³
101-68-8 diphenylmethane-4,4'-diisocyanate: 0.45 mg/m³
- **PAC-2:**
24937-78-8 Ethyl vinyl acetate copolymer: 330 mg/m³
13463-67-7 titanium dioxide: 330 mg/m³
101-68-8 diphenylmethane-4,4'-diisocyanate: 5 mg/m³
- **PAC-3:**
24937-78-8 Ethyl vinyl acetate copolymer: 2,000 mg/m³
13463-67-7 titanium dioxide: 2,000 mg/m³
101-68-8 diphenylmethane-4,4'-diisocyanate: 55 mg/m³

7 Handling and storage

- **Handling:**
- **7.1. Precautions for safe handling**
Appropriate regular employee training.
Handle the substance preferably in closed system
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 solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

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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.

Prevent formation of dust.

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

· 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.

8 Exposure controls/personal protection

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

· 8.1. Control parameters

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

CAS No.	Designation of material	%	Type	Value	Unit
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13463-67-7 titanium dioxide

PEL (USA) Long-term value: 15* mg/m³
*total dust

REL (USA) See Pocket Guide App. A

TLV (USA) Long-term value: 10 mg/m³

EL (USA) Long-term value: 10* 3** mg/m³
*total dust; **respirable fraction; IARC 2B

EV (USA) Long-term value: 10 mg/m³
total dust

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

PEL (USA) Ceiling limit value: 0.2 mg/m³, 0.02 ppm

REL (USA) Long-term value: 0.05 mg/m³, 0.005 ppm
Ceiling limit value: 0.2* mg/m³, 0.02* ppm
*10-min

TLV (USA) Long-term value: 0.051 mg/m³, 0.005 ppm

EL (USA) Long-term value: 0.005 ppm
Ceiling limit value: 0.01 ppm
S(R)

EV (USA) Long-term value: 0.005 ppm
Ceiling limit value: 0.02 ppm

TWA (USA) 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

· 8.2. Exposure controls

limit the exposure to:

8 hours

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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.
- **Breathing equipment:**
Wear NIOSH-approved, air-purifying respirator.
Wear NIOSH-approved, air-purifying respirator in case of insufficient ventilation.
Combination Filter OV (Organic Vapours) / P95 (Particles and Aerosols) [42 CFR part 84]
- **Protection of hands:** Protective gloves
- **Material of gloves:** Synthetic gloves
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information

Appearance:

Form: Solid
Color: White

- **Odor:** Light
- **Odor threshold:** Not determined.
- **pH-value:** Not applicable.

Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

- **Flash Point:** Not applicable.
- **Flammability (solid, gaseous):** Not determined.
- **Ignition Temperature:** >300 °C (>572 °F)
- **Decomposition Temperature:** Not determined.
- **Auto Igniting:** Product is not selfigniting.
- **Danger of Explosion:** Product does not present an explosion hazard.
- **Explosion Limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor Pressure:** Not applicable.
- **Density at 20 °C (68 °F):** 1.2 g/cm³ (10.01 lbs/gal)
- **Relative Density:** Not determined.
- **Vapour Density:** Not applicable.
- **Evaporation Rate:** Not applicable.
- **Solubility in / Miscibility with Water:** Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:** At room temperature: not applicable
- **Dynamic:** Not applicable.
- **Kinematic:** Not applicable.
- **9.2. Other information:** No further relevant information available.

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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:** Isocyanate

11 Toxicological information

- **11.1. Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:**

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 1.5 mg/l (rat) (Calculation (ATE))

- **Primary irritant effect:**
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
- **Additional toxicological information:**

- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**

titanium dioxide: 2B

diphenylmethane-4,4'-diisocyanate: 3

- **NTP (National Toxicology Program)**
- None of the ingredients is listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

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

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- **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1. Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Adhesive reacted completely:
Can be disposed of with household garbage in small quantities after curing.
- **Uncleaned packagings:**
- **Recommendation:**
Non contaminated packagings can be used for recycling.
Empty contaminated packagings thoroughly. Disposal must be made according to official regulations.

14 Transport information

- **14.1. UN-Number**
- **DOT, ADR, IMDG, IATA** Void
- **14.2. UN proper shipping name**
- **DOT, ADR, IMDG, IATA** Void
- **14.3. Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class** Void
- **14.4. Packing group**
- **DOT, ADR, 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 MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
See position no 2 - Hazards Identification
- **SARA (Superfund Amendments and Reauthorization Act) - USA**
- **Section 355 (Extremely hazardous substances):**
None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
101-68-8 diphenylmethane-4,4'-diisocyanate
- **TSCA (Toxic Substances Control Act) - USA**
All components have the value ACTIVE.
- **DSL (Canadian Domestic Substance List) - Canada: (Substances not listed)**
25748-74-7 polyurethanes, linear, inert, not specified
- **Hazardous Air Pollutants**
101-68-8 diphenylmethane-4,4'-diisocyanate
- **Proposition 65 - USA/California**
- **Chemicals known to cause cancer:**
13463-67-7 titanium dioxide

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- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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

None of the ingredients is listed.

- **EPA (Environmental Protection Agency) - USA**

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

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

13463-67-7 titanium dioxide: A4

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

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

13463-67-7 titanium dioxide

- **National regulations:**

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

- **15.2. 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.

- **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 the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.

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

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport 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

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 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 2: Specific target organ toxicity (repeated exposure) – Category 2

USA