

## Safety Data Sheet acc. to OSHA HCS

Printing date 09/23/2016

Reviewed on 05/11/2016

### 1 Identification

- Product identifier

- Trade name: **CILCURE B**

- Article number: R045066-00

- Application of the substance / the mixture Hardening agent/ Curing agent

- Details of the supplier of the safety data sheet

- Manufacturer/Supplier:

Kommerling UK Ltd  
217 Walton Summit Road  
Bamber Bridge  
Preston, Lancashire  
PR5 8AQ United Kingdom  
+44 (0)1772 322888  
+44 (0)1772 315853  
sds@cilbond.com  
(calls from USA: Please dial 01149 instead of +49)

- Information department:

Abteilung: C-U Qualitäts- und Umweltmanagementcenter  
(department: C-U Quality- and Environmentalmanagementcenter)  
Tel.: +49 (0)6331/56-2553; Fax.: +49 (0)6331/56-1091  
e-Mail: Productsafety@Koe-Chemie.de  
(calls from USA: Please dial 01149 instead of +49)

For Chemical Emergency – Call CHEMTREC Day or Night USA + Canada =  
Spill, Leak, Fire, Exposure or Accident 1-800-424-9300 / 703-527-3887

### 2 Hazard(s) identification

- Classification of the substance or mixture

Acute Tox. 4 H332 Harmful if inhaled.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 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 2 H373 May cause damage to organs through prolonged or repeated exposure.

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**- Label elements****- GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**- Hazard pictograms**

GHS07 GHS08

**- Signal word** Danger**- Hazard-determining components of labeling:**

diphenylmethane-4,4'-diisocyanate  
Benzene, 1,1'-methylenebis[isocyanato-, homopolymer  
diphenylmethane-2,4'-diisocyanate

**- Hazard statements**

H332 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.  
H373 May cause damage to organs through prolonged or repeated exposure.

**- Precautionary statements**

Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Do not breathe mist/vapours/spray.  
Avoid contact during pregnancy/while nursing.  
Contaminated work clothing must not be allowed out of the workplace.  
[In case of inadequate ventilation] wear respiratory protection.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
IF exposed or concerned: Get medical advice/attention.  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Get medical advice/attention if you feel unwell.  
IF ON SKIN: Wash with plenty of water.  
Take off contaminated clothing and wash it before reuse.  
Store locked up.  
Store in a well-ventilated place. Keep container tightly closed.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

**- 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 several substances

**- Dangerous components:**

101-68-8	diphenylmethane-4,4'-diisocyanate	50-75%
39310-05-9	Benzene, 1,1'-methylenebis[isocyanato-, homopolymer	15-25%

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

&lt; 10%

- **SVHC** Doesn't contain SVHC-substances

### 4 First-aid measures

**- Description of first aid measures**

**- After inhalation:**

Supply fresh air; consult doctor in case of complaints.

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.

**- After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**- After swallowing:** Do not induce vomiting; immediately call for medical help.

**- Information for doctor:**

**- Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**- Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**- Extinguishing media**

**- Suitable extinguishing agents:**

Water spray

Alcohol resistant foam

Fire-extinguishing powder

Carbon dioxide

**- For safety reasons unsuitable extinguishing agents:** Water with full jet

**- Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

**- Advice for firefighters**

**- Protective equipment:** Wear self-contained respiratory protective device.

### 6 Accidental release measures

**- Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

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

**- Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

**- Methods and material for containment and cleaning up:** 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:** Prevent any seepage into the ground.

**- Information about storage in one common storage facility:** Store away from foodstuffs.

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**- Further information about storage conditions:**

- Protect from frost.
- Keep receptacle tightly sealed.
- Protect from heat and direct sunlight.
- Store receptacle in a well ventilated area.
- Store in dry conditions.

**- Storage class (according german VCI-concept): 10****- 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.**- Control parameters****- Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

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

PEL (USA)	Ceiling limit value: 0.2 mg/m <sup>3</sup> , 0.02 ppm
REL (USA)	Long-term value: 0.05 mg/m <sup>3</sup> , 0.005 ppm Ceiling limit value: 0.2* mg/m <sup>3</sup> , 0.02* ppm *10-min
TLV (USA)	Long-term value: 0.051 mg/m <sup>3</sup> , 0.005 ppm

**- Exposure controls****- Personal protective equipment:****- General protective and hygienic measures:**

- The usual precautionary measures for handling chemicals should be followed.
- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Immediately remove all soiled and contaminated clothing.

**- Breathing equipment:**

- Not required with good ventilation and/or adequate extractor facilities
- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- Short term filter device:  
A2 (DIN EN 14387 / DIN EN 141)

**- Protection of hands:**

- Direct contact with the chemical preparation must be avoided by organizational measures. Apply skin protectant before working with gloves to avoid skin swellings and use a skin cleansing and skincare product after the work.
- Compliance with the stated penetration time (starts with the first product contact) must be ensured!
- The gloves need to be disposed of after the penetration time and new gloves used!

**- For the permanent contact gloves made of the following materials are suitable:**

If longer exposure to the chemical preparation is necessary, a sturdy overglove against mechanical strain is recommended in combination with the "Barrier 02-100" underglove from Ansell (penetration time 480 min).

**- For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Nitrile rubber (0.8 mm - penetration time 15 min)

**- As protection from splashes gloves made of the following materials are suitable:**

Recommended for protection from splashes: disposable nitrile gloves (minimum thickness 0.12 mm) with long cuffs. After contact with the chemical preparation, take the disposable nitrile glove off immediately and put on a new disposable nitrile glove.

**- Eye protection:** Safety glasses

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### 9 Physical and chemical properties

- Information on basic physical and chemical properties	
- General Information	
- Appearance:	
Form:	Fluid
Color:	Yellow
- Odor: Characteristic	
- Change in condition	
Boiling point/Boiling range: Not determined	
- Flash point:	>200 °C (>392 °F)
- Ignition temperature:	520 °C (968 °F)
- Explosion limits:	
Lower:	0.4 Vol %
Upper:	0.0 Vol %
- Density at 20 °C (68 °F):	1.19 g/cm <sup>3</sup> (9.931 lbs/gal)
- Solubility in / Miscibility with	
Water:	Insoluble. reacts with water
- Viscosity:	
Kinematic at 20 °C (68 °F):	25 mm <sup>2</sup> /s
- Solvent content:	
VOC content:	0.0 g/l / 0.00 lb/gl
- Other information: No further relevant information available.	

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions**  
Reacts with alcohols, amines, aqueous acids and alkalis.  
Reacts with water forming carbon dioxide. In closed containers there is a danger of bursting, due to build up of pressure.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
In case of fire, the following substance(s) may occur:  
Nitrogen oxides
- **Additional information:** Open and release pressure carefully with pressurised containers

### 11 Toxicological information

- Information on toxicological effects		
- Acute toxicity:		
- LD/LC50 values that are relevant for classification:		
<b>ATE (Acute Toxicity Estimates)</b>		
Inhalative	LC50/4 h	11 mg/l
<b>101-68-8 diphenylmethane-4,4'-diisocyanate</b>		
Inhalative	LC50/4 h	11 mg/l (ATE)

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**39310-05-9 Benzene, 1,1'-methylenebis[isocyanato-, homopolymer**

Inhalative LC50/4 h 11 mg/l (ATE)

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

Inhalative LC50/4 h 11 mg/l (ATE)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Additional toxicological information:** Harmful

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

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

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- **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**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **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:** Disposal in accordance with official regulations
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- |  |      |
|--|------|
| - <b>UN-Number</b>                         |      |
| - <b>DOT, ADR,RID,ADN, ADN, IMDG, IATA</b> | Void |
| - <b>UN proper shipping name</b>           |      |
| - <b>DOT, ADR,RID,ADN, ADN, IMDG, IATA</b> | Void |
| - <b>Transport hazard class(es)</b>        |      |
| - <b>DOT, ADR,RID,ADN, ADN, IMDG, IATA</b> |      |
| - <b>Class</b>                             | Void |
| - <b>Packing group</b>                     |      |
| - <b>DOT, ADR,RID,ADN, IMDG, IATA</b>      | Void |

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- 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.
- Transport/Additional information:	Protect from moisture
- IATA	
- Remarks:	not restricted
- UN "Model Regulation":	Void

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

#### - Section 355 (extremely hazardous substances):

None of the ingredient is listed.

#### - Section 313 (Specific toxic chemical listings):

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

#### - TSCA (Toxic Substances Control Act):

All ingredients are listed.

#### - Proposition 65

#### - 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 reproductive toxicity for males:

None of the ingredients is listed.

#### - Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

#### - Cancerogenity categories

#### - EPA (Environmental Protection Agency)

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

D, CBD

#### - TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

#### - MAK (German Maximum Workplace Concentration)

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

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#### - NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- 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.

-----  
For industrial use only.

- Department issuing SDS:

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**- Date of preparation / last revision 09/23/2016 / -****- Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

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