



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58



Revision: 31.10.2024

Hazardous according according to Safe Work Australia GHS 7.

**1 Identification**

- **Other means of identification**
- **Trade name** Okamul PU Komp. B
- **Relevant identified uses of the substance or mixture and uses advised against** none  
Do not use for splashing / spraying
- **Sector of Use** SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Application of the substance / the mixture** Hardening agent/ Curing agent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** Kiesel Bauchemie GmbH & Co. KG  
Wolf-Hirth-Str. 2  
  
D-73730 Esslingen  
  
Tel.:+49(0)711/93134-0  
Fax:+49(0)711/93143-140  
E-Mail: sida@kiesel.com
- **Informing department:** Laboratory, departments of enviromental protection and labor protection
- **Emergency telephone number:** AUS-Mobile: +61 467467577  
  
Poison Information Center Freiburg Tel.: +49761/ 19240 (24h German and English)

**2 Hazard(s) Identification**

- **Classification of the substance or mixture**
-  **GHS06 skull and crossbones**  
Acute toxicity - inhalation – Category 1 H330 Fatal if inhaled.
-  **GHS08 health hazard**  
Respiratory sensitisation – Category 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Carcinogenicity – Category 2 H351 Suspected of causing cancer.
- Specific target organ toxicity (repeated exposure) – Category 1 H372 Causes damage to organs through prolonged or repeated exposure.

(Contd. on page 2)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 1)



**GHS07**

**Skin corrosion/irritation – Category 2**

**H315 Causes skin irritation.**

**Eye damage/irritation – Category 2A**

**H319 Causes serious eye irritation.**

**Skin sensitisation – Category 1**

**H317 May cause an allergic skin reaction.**

**Specific target organ toxicity (single exposure) – Category 3**  
**H335 May cause respiratory irritation.**

- Label elements
- GHS label elements
- Hazard pictograms

The product is classified and labelled according to the Globally Harmonised System (GHS).



**GHS06 GHS08**

- Signal word
- Hazard-determining components of labelling:
- Hazard statements

**Danger**

**diphenylmethanediisocyanate, isomeres and homologues (≥50-≤100 %)**

**Fatal if inhaled.**

**Causes skin irritation.**

**Causes serious eye irritation.**

**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**

**May cause an allergic skin reaction.**

**Suspected of causing cancer.**

**May cause respiratory irritation.**

**Causes damage to organs through prolonged or repeated exposure.**

- Precautionary statements

**Do not breathe dust/fume/gas/mist/vapours/spray.**

**Do not eat, drink or smoke when using this product.**

**Use only outdoors or in a well-ventilated area.**

**Contaminated work clothing should not be allowed out of the workplace.**

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

**Wear respiratory protection.**

**IF ON SKIN: Wash with plenty of water.**

**IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**

**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**

**Get medical advice/attention if you feel unwell.**

**If skin irritation or rash occurs: Get medical advice/attention.**

**If eye irritation persists: Get medical advice/attention.**

**Take off contaminated clothing and wash it before reuse.**

(Contd. on page 3)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 2)

**Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. Restricted to professional users**

- **Additional information:**
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**3 Composition and Information on Ingredients**

- **Chemical characterisation: Mixtures**

- **Dangerous components:**

<b>CAS: 9016-87-9</b>	<b>diphenylmethanediisocyanate, isomeres and homologues</b>	<b>≥50-≤100%</b>
	<ul style="list-style-type: none"> <li> <b>Acute toxicity - inhalation – Category 1, H330</b></li> <li> <b>Respiratory sensitisation – Category 1, H334;</b></li> <li><b>Carcinogenicity – Category 2, H351; Specific target organ toxicity (repeated exposure) – Category 1, H372</b></li> <li> <b>Skin corrosion/irritation – Category 2, H315; Eye damage/irritation – Category 2A, H319; Skin sensitisation – Category 1, H317; Specific target organ toxicity (single exposure) – Category 3, H335</b></li> </ul>	

- **Additional information** See also information on "8 Exposure controls and personal protective equipment". For the wording of the listed hazard phrases refer to section 16.

**4 First Aid Measures**

- **General information** symptoms of intoxication could develop after hours, therefore medical surveillance at least for 48 h after the incident. Immediately remove contaminated clothing. Remove breathing apparatus only after soiled clothing has been completely removed. In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation** If you feel unwell, seek medical advice. Keep patient calm, remove to fresh air, summon medical help. Symptoms can appear later. Supply fresh air or oxygen; call for doctor. In case of unconsciousness bring patient into stable side position for transport. Seek medical treatment in case of complaints.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

(Contd. on page 4)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 3)

- **After swallowing** **Inform doctor. Do not give milk or fatty oils. rinse out mouth**
- **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** **In cases of irritation to the lungs, initial treatment with Dexamethason metered aerosol.**

### 5 Fire Fighting Measures

- **Suitable extinguishing agents** **CO2, extinguishing powder or water jet. Fight larger fire with alcohol-resistant foam. Use fire fighting measures that suit the environment.**
- **For safety reasons unsuitable extinguishing agents** **Water with a full water jet.**
- **Special hazards arising from the substance or mixture** **Formation of poisonous gases during heating or in fires. No further relevant information available.**
- **Protective equipment:** **Wear non-circulation breathing equipment and chemical-protective clothing. Do not inhale explosion gases or fire fumes.**

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** **Ensure adequate ventilation Put on breathing apparatus.**
- **Environmental precautions:** **No special measures required.**
- **Methods and material for containment and cleaning up:** **Take-up with liquid binding material (sand, diatomaceous earth, acid binding agent, universal binding agent). Dispose of contaminated material as waste according to item 13.**
- **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 information on disposal.**

AU

(Contd. on page 5)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 4)

**7 Handling and Storage**

- **Handling**
- **Precautions for safe handling** Do not leave the container standing open.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle container with care.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep breathing equipment ready.
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Store away from water.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls and personal protection**

- **Appropriate engineering controls** No further data; see section 7.
  - **Components with critical values that require monitoring at the workplace:**
- |                                                                     |                                                                                                     |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues |                                                                                                     |
| WES                                                                 | Short-term value: 0.07 mg/m <sup>3</sup><br>Long-term value: 0.02 mg/m <sup>3</sup><br>Sen, as -NCO |
- **Additional information:** CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.
  - **Personal protective equipment**
  - **General protective and hygienic measures** Do not eat, drink or smoke while working.  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.
  - **Breathing equipment:** Breathing equipment required in the event of inhalable dust, insufficient ventilation and elevated temperatures.  
Suitable respiratory protection for low concentrations or short-term exposure: Particle filter EN 143 type P2 (medium retention capacity (solid and liquid pollutant particles)).  
In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.
  - **Protection of hands:** Protective gloves.

(Contd. on page 6)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 5)

· Material of gloves

**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**

**Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation**

**Nitrile rubber, NBR**

**Fluorocarbon rubber (Viton)**

· Penetration time of glove material

**The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.**

· Eye protection:

**Tightly sealed safety glasses.**

· Body protection:

**Protective work clothing.**

**9 Physical and Chemical Properties**

· Information on basic physical and chemical properties

· Appearance:

· Form:

**Fluid**

· Colour:

**Brown**

· Smell:

**earthy, slightly musty.**

· Odour threshold:

**Not determined.**

· pH-value:

**Mixture reacts violently with water.**

· Change in condition

· Melting point/freezing point:

**Beginning partial crystallisation from 10°C**

· Initial boiling point and boiling range:

**>260 °C (DIN)**

· Flash point:

**>150 °C (DIN)**

· Inflammability (solid, gaseous)

**Not applicable.**

· Auto-ignition temperature:

**400 °C (DIN)**

· Decomposition temperature:

**Not determined.**

· Self-inflammability:

**Product is not selfigniting.**

· Explosive properties:

**Product is not explosive.**

· Critical values for explosion:

· Lower:

**Not determined.**

· Upper:

**Not determined.**

· Steam pressure at 25 °C:

**0.0002 hPa (DIN)**

· Vapour pressure at 50 °C:

**3 hPa**

· Density at 20 °C

**1.23 g/cm<sup>3</sup>**

· Relative density

**Not determined.**

· Vapour density

**Not determined.**

· Evaporation rate

**Not determined.**

· Solubility in / Miscibility with

· Water:

**less miscible**

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

· Viscosity:

· dynamic at 20 °C:

**220 mPas**

· kinematic:

**Not determined.**

(Contd. on page 7)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 6)

· **Solvent content:**  
· **Solids content:** 50-100 %  
· **Volatile Organic Compounds** 0.0 g/l  
0.00 %

· **Other information**  
· **Particle characteristics** Not applicable.  
· **Physical state** Fluid

**10 Stability and Reactivity**

· **Reactivity** No further relevant information available.  
· **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:** None known.

**11 Toxicological Information**

· **Information on toxicological effects**  
· **Acute toxicity** Fatal if inhaled.

· **LD/LC50 values that are relevant for classification:**

CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	>10,000 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (Rabbit)
Inhalative	LC50/4 h	0.493 mg/l (Rat)

· **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.  
· **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.  
· **STOT-repeated exposure** Causes damage to organs through prolonged or repeated exposure.  
· **Aspiration hazard** Based on available data, the classification criteria are not met.  
· **Subacute to chronic toxicity:** Duration of trials: 2 years:  
Application: inhalative/rats/>0.2,<1 mg/m<sup>3</sup>/ aerosol (PMDI)  
Result: by inhalative adsorption, the substance causes extensive local irritation in rats with epithelial damage. In

(Contd. on page 8)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 7)

**addition to this, local tumors developed following this damage in some animals.**

**Subacute-chronical toxicity**

**Length of trials: 2 years**

**Application: inhalative (rat): > 0.2 < 1 mg/m<sup>3</sup> aerosol (PMDI).**

**Findings: when inhaled, the substance caused clear local irritation in the rats with epithelium damage.**

**Application: inhalative (rat): 6 mg/m<sup>3</sup> aerosol (PMDI).**

**Findings: when inhaled, the substance caused clear local irritation in the rats with epithelium damage. Some of the animals also suffered local tumour growth after this.**

**12 Ecological Information**

· **Toxicity**

· **Aquatic toxicity:**

**CAS: 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

**EC50(3h) ≥1,000 mg/l (Belebtschlamm Bakterien)**

**LC 50 (96h) >1,000 mg/l (Danio rerio (Zebrafisch))**

**>1,000 mg/l (Acute fish toxicity (zebrafish))**

· **Persistence and degradability** No further relevant information available.

· **Behaviour in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

**Water hazard class 1 (Self-assessment): slightly hazardous for water.**

**Do not allow undiluted product or large quantities of it to reach ground water, water bodies 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** **Must be forwarded for special treatment in accordance with local authority regulations, e.g. suitable incineration plant.**

· **Recommendation** **Disposal according to official regulations**

(Contd. on page 9)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 8)

- Uncleaned packagings:
- Recommendation:

**Disposal must be made according to official regulations.**

**14 Transport information**

· UN-Number	Void
· ADG, ADN, IMDG, IATA	Void
· UN proper shipping name	Void
· ADG, ADN, IMDG, IATA	Void
· Transport hazard class(es)	Void
· ADG, ADN, IMDG, IATA	Void
· Class	Void
· Packing group	Void
· ADG, IMDG, IATA	Void
· Environmental hazards:	No
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not classified as dangerous in the meaning of transport regulations.
· UN "Model Regulation":	Void

**15 Regulatory information**

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

· Australian Inventory of Industrial Chemicals  
All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons  
None of the ingredients is listed.

· Australia: Priority Existing Chemicals  
None of the ingredients is listed.

· GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms



GHS06 GHS08

(Contd. on page 10)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 9)

· **Signal word**

**Danger**

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

**diphenylmethanediisocyanate, isomeres and homologues (≥50-≤100 %)**

· **Hazard statements**

**Fatal if inhaled.**  
**Causes skin irritation.**  
**Causes serious eye irritation.**  
**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**  
**May cause an allergic skin reaction.**  
**Suspected of causing cancer.**  
**May cause respiratory irritation.**  
**Causes damage to organs through prolonged or repeated exposure.**

· **Precautionary statements**

**Do not breathe dust/fume/gas/mist/vapours/spray.**  
**Do not eat, drink or smoke when using this product.**  
**Use only outdoors or in a well-ventilated area.**  
**Contaminated work clothing should not be allowed out of the workplace.**  
**Wear protective gloves/protective clothing/eye protection/face protection.**  
**Wear respiratory protection.**  
**IF ON SKIN: Wash with plenty of water.**  
**IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**  
**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**  
**Get medical advice/attention if you feel unwell.**  
**If skin irritation or rash occurs: Get medical advice/attention.**  
**If eye irritation persists: Get medical advice/attention.**  
**Take off contaminated clothing and wash it before reuse.**  
**Store in a well-ventilated place. Keep container tightly closed.**  
**Store locked up.**  
**Dispose of contents/container in accordance with local/regional/national/international regulations.**

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I**

· **National regulations**

· **Information about limitation of use:**

**None of the ingredients are included**

**Employment restrictions concerning young persons must be observed.**

**Employment restrictions concerning pregnant and lactating women must be observed.**

(Contd. on page 11)



**Safety Data Sheet**  
according to WHS Regulations

Date of issue: 31.10.2024

Version number 58

Revision: 31.10.2024

Trade name Okamul PU Komp. B

(Contd. of page 10)

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

**16 Other information**

*This information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge. It does not constitute a legal warranty regulations. The delivery specifications are contained in the corresponding product sheet.*

· **Relevant phrases**

- H315 Causes skin irritation.**
- H317 May cause an allergic skin reaction.**
- H319 Causes serious eye irritation.**
- H330 Fatal 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 data specification sheet:**

· **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  
 IATA: International Air Transport Association  
 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 toxicity - inhalation – Category 1: Acute toxicity – Category 1  
 Skin corrosion/irritation – Category 2: Skin corrosion/irritation – Category 2  
 Eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A  
 Respiratory sensitisation – Category 1: Respiratory sensitisation – Category 1  
 Skin sensitisation – Category 1: Skin sensitisation – Category 1  
 Carcinogenicity – Category 2: Carcinogenicity – Category 2  
 Specific target organ toxicity (single exposure) – Category 3: Specific target organ toxicity (single exposure) – Category 3  
 Specific target organ toxicity (repeated exposure) – Category 1: Specific target organ toxicity (repeated exposure) – Category 1

· \* **Data compared to the previous version altered.**

· **Comment**

*The information is based on our knowledge we do have so far. However it is not a confirmation of product features and does not establish contractual legal relationship. Use, operation and processing are the responsibility of the customer.*