



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.12.2021

Version number 19 (replaces version 18)

Revision: 16.12.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name **Okamul PU-V-Schnell**

· UFI: **JPM0-20U0-900A-AKJ2**

· 1.2 Relevant identified uses of the substance or mixture and uses advised against

none

· Sector of Use

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· Application of the substance / the mixture

Primer/ Subcoating

· 1.3 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 environmental protection and labor protection

· 1.4 Emergency telephone number:

**Poison Information Center Freiburg Tel.: +49(0)761/ 19240
(24h German and English)**

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

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

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

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- 2.2 Label elements
- Labelling according to

Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

- Hazard pictograms



GHS07 GHS08

- Signal word

Danger

- Hazard-determining components of labelling:
- Hazard statements

diphenylmethanediisocyanate, isomeres and homologues
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

P281 Use personal protective equipment as required.
P285 In case of inadequate ventilation wear respiratory protection.
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Additional information:

EUH204 Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.

- 2.3 Other hazards
- Results of PBT and vPvB assessment

This mixture does not contain any substance considered to be persistent, bioaccumulative or toxic (PBT) will be. This mixture does not contain any substance that is considered very persistent or very bioaccumulative (vPvB)

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- PBT: (if not listed in section 3).
Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Dangerous components:

CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues 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 EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; C ≥ 5 %	≥50-≤100%
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- Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- General information symptoms of intoxication could develop after hours, therefore medical surveillance at least for 48 h after the incident. If you feel unwell, seek medical advice.
- After inhalation Provide plenty of fresh air. 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.
- After swallowing Inform doctor. Do not give milk or fatty oils. Seek medical treatment.
- 4.2 Most important symptoms and effects, both acute and delayed Respiratory symptoms including pulmonary oedema may be delayed. Individuals should remain under observation for 24-48 hours after significant exposure for signs of respiratory distress.

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- **4.3 Indication of any immediate medical attention and special treatment needed** *In cases of irritation to the lungs, initial treatment with Dexamethason metered aerosol.*

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **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.*
- **5.2 Special hazards arising from the substance or mixture** *Formation of poisonous gases during heating or in fires. No further relevant information available.*
- **5.3 Advice for firefighters**
- **Protective equipment:** *Wear non-circulation breathing equipment and chemical-protective clothing. Do not inhale explosion gases or fire fumes.*

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** *Ensure adequate ventilation*
- **6.2 Environmental precautions:** *No special measures required.*
- **6.3 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.*
- **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 information on disposal.*

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** *Do not leave the container standing open. Ensure good ventilation/exhaustion at the workplace. Open and handle container with care.*

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- **Information about protection against explosions and fires:** *Keep breathing equipment ready.*
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** *Keep tightly sealed, store in a cool, dry and well ventilated place. Development of excess CO₂ pressure in isocyanate containers on contact with moisture.*
- **Information about storage in one common storage facility:** *Do not store together with: acids, amines or products containing amines, products which contain groups with active hydrogen.
Stock/store/load away from foodstuffs, feed and semi-luxury foods/tobacco.*
- **Further information about storage conditions:** *Keep container tightly sealed.*
- **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:**
- **Additional information:** *The lists that were valid during the compilation were used as basis.*
- **8.2 Exposure controls**
- **Appropriate engineering controls** *No further data; see item 7.*
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures** *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:** *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.
Suitable respiratory protection at low concentrations or short-term exposure: Particle filter EN 143 type P2 (medium retention capacity (solid and liquid particles of harmful substances))*
- **Hand protection** *Protective 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*

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- **Material of gloves** Nitrile rubber, NBR
Butyl rubber, BR
PVC gloves
- **Penetration time of glove material** The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection** Tightly sealed safety glasses.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **Physical state** Fluid
- **Colour:** Brown
- **Smell:** Characteristic
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** 41 °C
- **Boiling point or initial boiling point and boiling range** >260 °C
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** >150 °C
- **Self-inflammability:** Product is not selfigniting.
- **Decomposition temperature:** Not determined.
- **pH** Mixture reacts violently with water.
- **Viscosity:**
- **Kinematic viscosity** Not determined.
- **dynamic at 20 °C:** 220 mPas
- **Solubility**
- **Water:** less miscible
- **Partition coefficient n-octanol/water (log value)** Not determined.
- **Steam pressure at 25 °C:** 0.0002 hPa
- **Density and/or relative density**
- **Density at 20 °C** 1.17 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not determined.

- **9.2 Other information**
- **Appearance:**
- **Form:** Fluid
- **Ignition temperature:** 400 °C
- **Explosive properties:** Product is not explosive.
- **Change in condition**
- **Evaporation rate** Not determined.

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- Information with regard to physical hazard classes
- Explosives Void
- Flammable gases Void
- Aerosols Void
- Oxidising gases Void
- Gases under pressure Void
- Flammable liquids Void
- Flammable solids Void
- Self-reactive substances and mixtures Void
- Pyrophoric liquids Void
- Pyrophoric solids Void
- Self-heating substances and mixtures Void
- Substances and mixtures, which emit flammable gases in contact with water Void
- Oxidising liquids Void
- Oxidising solids Void
- Organic peroxides Void
- Corrosive to metals Void
- Desensitised explosives Void

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- 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: None known.

SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Harmful 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 (rab)

Inhalative LC50/4 h 0.493 mg/l (rat)

- Skin corrosion/irritation Causes skin irritation.
- Serious eye damage/irritation Causes serious eye irritation.

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- **Respiratory or skin sensitisation** *May cause allergy or asthma symptoms or breathing difficulties if inhaled.*
 - **Germ cell mutagenicity** *May cause an allergic skin reaction.*
 - **Carcinogenicity** *Based on available data, the classification criteria are not met.*
 - **Reproductive toxicity** *Suspected of causing cancer.*
 - **STOT-single exposure** *Based on available data, the classification criteria are not met.*
 - **STOT-repeated exposure** *May cause respiratory irritation.*
 - **Aspiration hazard** *May cause damage to organs through prolonged or repeated exposure.*
 - **Subacute to chronic toxicity:** *Based on available data, the classification criteria are not met.*
- Duration of trials: 2 years:**
Application: inhalative/rats/>0.2,<1 mg/m3/ aerosol (PMDI)
Result: by inhalative adsorption, the substance causes extensive local irritation in rats with epithelial damage. In addition to this, local tumors developed following this damage in some animals.

· **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 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 (Akute Fischtoxizität (Zebrafisch))

- **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.

- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects**

- **Additional ecological information:**

- **General notes:**

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

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Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation Disposal according to official regulations

· European waste catalogue

08 05 01* waste isocyanates

· Uncleaned packagings:

· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN number or ID number

· ADR, ADN, IMDG, IATA Void

· 14.2 UN proper shipping name

· ADR, ADN, IMDG, IATA Void

· 14.3 Transport hazard class(es)

· ADR, ADN, IMDG, IATA

· Class Void

· 14.4 Packing group

· ADR, IMDG, IATA Void

· 14.5 Environmental hazards:

· Marine pollutant: No

· 14.6 Special precautions for user Not applicable.

· 14.7 Maritime transport in bulk according to IMO instruments Not applicable.

· Transport/Additional information: Not classified as dangerous in the meaning of transport regulations.

· UN "Model Regulation": Void

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients are included

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· **REGULATION (EC) No 1907/2006 ANNEX XVII**

Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations**

· **Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

SECTION 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.

· **Date of previous version:** 16.12.2021

· **Version number of previous version:** 18

· **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)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
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
GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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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. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
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

- * 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.