Safety Data Sheet
according to HPR, Schedule 1

Date of issue 10/02/2026 **Version number 27** **Revision: 10/01/2026**

1 Identification

· **Product identifier**

· **Trade name:** **Okamul PU-V schnell**
· **Other means of identification**
· **Application of the substance / the mixture** Primer/ Subcoating

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:** Kiesel Bauchemie GmbH & Co. KG
Wolf-Hirth-Str. 2
D-73730 Esslingen
Germany
E-Mail:
info.canada@cemex.com
info.usa@cemex.com

· **Information department:** Laboratory, departments of enviromental protection and labor protection
· **Emergency telephone number:** ChemTel Expert Assiatance Hotline 800-255-2824

2 Hazard identification

· **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Toxicity (Inhalation) - Category 2	H330 Fatal if inhaled.



GHS08 Health hazard

Sensitization - respiratory – Category 1	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Specific target organ toxicity (repeated exposure) – Category 2	H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irritation - Category 2	H315 Causes skin irritation.
Sensitization - skin – Category 1	H317 May cause an allergic skin reaction.
Specific target organ toxicity (single exposure) – Category 3	H335 May cause respiratory irritation.
Eye damage/irritation – Category 2B	H320 Causes eye irritation.

· **Additional information:** The full text of the classification and labeling elements mentioned is given in Section 16.

· **Label elements**
· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**



GHS06 GHS07 GHS08

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· **Signal word** Danger

· **Hazard-determining components of labeling:**
Diphenylmethan-4,4'-diisocyanat
MDI-Basiertes Polyisocyanat -Prepolymer
4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen

· **Hazard statements**
Fatal if inhaled.
Causes skin and eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

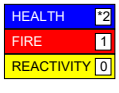
· **Precautionary statements**
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
[In case of inadequate ventilation] wear respiratory protection.
IF ON SKIN: Wash with plenty of water.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER/doctor if you feel unwell.
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.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
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.

· **Information pertaining to particular dangers for man and environment:**
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 1
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = *2
Fire = 1
Reactivity = 0

3 Composition/Information on ingredients

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· **Composition/Information on ingredients**
· **Chemical characterization: Mixtures**

· **Dangerous components:**

CAS: 101-68-8	Diphenylmethan-4,4'-diisocyanat Acute Toxicity (Inhalation) - Category 1, H330	≥15-≤60% w/w *
CAS: 67815-87-6	MDI-Basiertes Polyisocyanat -Prepolymer Specific target organ toxicity (repeated exposure) – Category 2, H373 Acute Toxicity (Inhalation) - Category 4, H332; Skin Irritation - Category 2, H315; Eye damage/irritation – Category 2A, H319; Sensitization - skin – Category 1, H317; Specific target organ toxicity (single exposure) – Category 3, H335	≥15-≤60% w/w *
CAS: 5873-54-1	Diphenylmethan-2,4'-diisocyanat; Mischungenmit Diphenylmethan-4,4'-diisocyanat und Diphenylmethan-2,2'-diisocyanat	≥10-≤30% w/w *
CAS: 9016-87-9	4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen Sensitization - respiratory – Category 1, H334; Carcinogenicity – Category 2, H351; Specific target organ toxicity (repeated exposure) – Category 2, H373 Acute Toxicity (Inhalation) - Category 4, H332; Skin Irritation - Category 2, H315; Eye damage/irritation – Category 2A, H319; Sensitization - skin – Category 1, H317; Specific target organ toxicity (single exposure) – Category 3, H335	≥10-≤30% w/w *
CAS: 2536-05-2	Diphenylmethan-2,2'-diisocyanat	≥1-≤5% w/w *

* Actual concentration ranges are withheld as a trade secret.

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· **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.
Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
If you feel unwell, seek medical advice.

· **After inhalation:** Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
Seek medical treatment in case of complaints.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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· After swallowing: Inform doctor. Do not give milk or fatty oils.
Seek medical treatment.

· 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.

· 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

· Extinguishing media
· Suitable extinguishing agents: CO_2, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.
Use fire fighting measures that suit the environment.

· For safety reasons unsuitable extinguishing agents: Water with full jet

· Special hazards arising from the substance or mixture: During heating or in case of fire poisonous gases are produced.
No further relevant information available.

· Advice for firefighters
· Protective equipment: Wear non-circulation breathing equipment and chemical-protective clothing. Do not inhale explosion gases or fire fumes.

· Additional information: Cool endangered containers with water. Gaseous products from decomposition may be liberated from overheated materials, danger of bursting. Collect residues from fires and contaminated extinguishing water separately, may not be discharged into drainage or into sewage water.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation
Mount respiratory protective device.

· Environmental precautions: No special measures required.

· Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.

· Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Handling and storage

· Precautions for safe handling: Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

· Information about protection against explosions and fires: Keep respiratory protective device available.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles: 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/tabacco.

· Further information about storage conditions: Keep receptacle tightly sealed.

· Specific end use(s) No further relevant information available.

8 Exposure controls/ Personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:	
CAS: 101-68-8 Diphenylmethan-4,4'-diisocyanat	
EL (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm S(R)
EV (Canada)	TWA: 0.005 ppm Ceiling: 0.02 ppm
PEL (USA)	Ceiling: 0.2 mg/m³, 0.02 ppm
REL (USA)	TWA: 0.05 mg/m³, 0.005 ppm Ceiling: 0.2* mg/m³, 0.02* ppm *10-min
TLV (USA)	TWA: 0.051 mg/m³, 0.005 ppm
CAS: 5873-54-1 Diphenylmethan-2,4'-diisocyanat; Mischungenmit Diphenylmethan-4,4'-diisocyanat und Diphenylmethan-2,2'-diisocyanat	
EL (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm
CAS: 9016-87-9 4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen	
EL (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm

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CAS: 2536-05-2 Diphenylmethan-2,2'-diisocyanat	
EL (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm

· Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls
· Appropriate engineering controls: No further data; see section 7.
· Personal protective equipment:
· General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
· Breathing equipment: 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 respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
· Protection of hands: 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
· Material of gloves: Nitrile rubber, NBR
Butyl rubber, BR
· 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 protection: Tightly sealed goggles.

*
9 Physical and chemical properties

· Information on basic physical and chemical properties

· Physical state	Liquid
· Color:	Brown
· Odor:	Characteristic
· Odor threshold:	Not determined
· Melting point/Melting range:	Beginning partial crystallisation from 10°C
· Boiling point/Boiling range:	>350 °C
· Flammability:	Not applicable
· Explosion limits:	
· Lower:	Not determined
· Upper:	Not determined
· Flash point:	210 °C
· Auto igniting:	400 °C

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· Decomposition temperature:	Not determined
· pH-value:	Mixture reacts violently with water.
· Viscosity:	
· Kinematic:	Not determined
· Dynamic at 20 °C:	220 mPas
· Solubility in / Miscibility with	
· Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined
· Vapor pressure at 25 °C:	0 hPa
· Vapor pressure at 50 °C:	3 hPa
· Density at 20 °C:	1.17 g/cm³
· Relative density	Not determined
· Vapor density	Not determined
· Particle characteristics	Not applicable

· Other information	
· Appearance:	
· Form:	Fluid
· AUTO IGNITION:	Not self igniting
· Danger of explosion:	Product does not present an explosion hazard.
· Solvent content:	
· VOC-Content	0.00 % 0.0 g/l / 0.00 lb/gal
· Solids content:	11-<27.5 %
· Volatile Organic Compounds	0.0 g/l 0.00 %
· Change in condition	
· Evaporation rate	Not determined

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	No dangerous reactions known.
· Conditions to avoid	No further relevant information available.
· Incompatible materials:	No further relevant information available.
· Hazardous decomposition products:	No dangerous decomposition products known.

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11 Toxicological information

· Information on toxicological effects
· Acute toxicity:

· LD/LC50 values that are relevant for classification:		
CAS: 101-68-8 Diphenylmethan-4,4'-diisocyanat		
Oral	LD50	>2,000 mg/kg (Rat)
Dermal	LD50	>9,400 mg/kg (Rabbit)
Inhalative	LC50/4 h	0.368 mg/l (Rat)
CAS: 9016-87-9 4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen		
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:
· on the skin: Irritant to skin and mucous membranes.
· on the eye: Irritating effect.
· Sensitization: Sensitization possible through inhalation.
Sensitization possible through skin contact.
· Subacute to chronic toxicity: 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.
Subacute-chronical toxicity
Length of trials: 2 years
Application: inhalative (rat): > 0.2 < l mg/m3 aerosol (PMDI).
Findings: when inhaled, the substance caused clear local irritation in the rats with epithelium
damage.
Application: inhalative (rat): 6 mg/m3 aerosol (PMDI).
Findings: when inhalted, the substance caused clear local irritation in the rats with epithelium
damage. Some of the animals also suffered local tumour growth after this.
· Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic
Harmful
Irritant
Very toxic

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
CAS: 101-68-8	Diphenylmethan-4,4'-diisocyanat	3
CAS: 9016-87-9	4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen	3

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· NTP (National Toxicology Program)
None of the ingredients is listed.

12 Ecological information

· Toxicity

· Aquatic toxicity:	
CAS: 101-68-8 Diphenylmethan-4,4'-diisocyanat	
LC 50 (96h)	>1,000 mg/l (Danio rerio (Zebrabärbling))
CAS: 9016-87-9 4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen	
EC50(3h)	≥1,000 mg/l (Belebtschlammbakterien)
LC 50 (96h)	>1,000 mg/l (Danio rerio (Zebrabärbling))
	>1,000 mg/l (Acute fish toxicity (zebrafish))

· Persistence and degradability No further relevant information available.
· 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
· 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 course or sewage system.

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

· UN-Number
· DOT/TDG, ADR, ADN, IMDG, IATA Void

· UN proper shipping name
· DOT/TDG, ADR, ADN, IMDG, IATA Void

· Transport hazard class(es)

· DOT/TDG, ADR, ADN, IMDG, IATA
· Class Void

· Packing group
· DOT/TDG, ADR, IMDG, IATA Void

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· Environmental hazards:	
· Marine pollutant:	No
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
· Transport/Additional information:	Not dangerous according to the above specifications.
· Special precautions for user	Not applicable
· 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):

CAS: 101-68-8	Diphenylmethan-4,4'-diisocyanat
CAS: 9016-87-9	4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen

· TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.

· MAK (German Maximum Workplace Concentration)

CAS: 9016-87-9	4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen	4

· Per- and polyfluoroalkyl substances (PFAS)
None of the ingredients is listed.

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

· Hazard pictograms



GHS06 GHS07 GHS08

· Signal word: Danger

· Hazard-determining components of labeling:
Diphenylmethan-4,4'-diisocyanat
MDI-Basiertes Polyisocyanat -Prepolymer
4,4'-Diphenylmethandiisocyanat, Isomere, Homologe und Mischungen

· Hazard statements
Fatal if inhaled.
Causes skin and eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements: Do not breathe dust/fume/gas/mist/vapours/spray.

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Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
[In case of inadequate ventilation] wear respiratory protection.
IF ON SKIN: Wash with plenty of water.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER/doctor if you feel unwell.
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.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
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.

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

16 Other information

To the best of our knowledge, the information contained in this MSDS is accurate. It is intended to assist the user in his evaluation of the product's harzards, and safety precautions to be taken in its use. The data on this MSDS relate only to the specific material designated herein. We do not assume any liability for the use, or reliance in this information, nor do we guarantee its accuracy or completeness.

· **Relevant phrases**
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
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.
· **Date of previous version** 03/18/2026
· **Version number of previous version:** 26
· **Date of preparation** 10/02/2026

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· **Abbreviations and acronyms:**
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)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.