Revision: 08.07.2024



Safety data sheet according to UK REACH

Printing date 08.07.2024

Version number 12 (replaces version 11)

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

- · 1.1 Product identifier
- · Trade name: WAKOL PU 385 Parquet Adhesive, shear-resistant
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · Application of the substance / the mixture Adhesives
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

WAKOL GmbH Bottenbacher Str. 30 D-66954 Pirmasens info@wakol.com +49 6331 8001 0

· Informing department:

Product safety department. msds@wakol.de

· 1.4 Emergency telephone number:

Emergency CONTACT (24-Hour-Number):

GBK GmbH Global Regulatory Compliance +49 (0)6132-84463

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



health hazard

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

Carc. 2 H351 Suspected of causing cancer.



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.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

· Hazard pictograms





GHS07

· Signal word Danger

· Hazard-determining components of labelling: diphenylmethanediisocyanate, isomeres and homologues

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Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate p-toluenesulphonyl isocyanate

· Hazard statements

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.

· Precautionary statements

Avoid breathing mist/vapours/spray. P261 P280 Wear protective gloves / eye protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

P304+P340 IF INHALED: Remove person to fresh air and keep 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.

· Additional information:

Contains isocyanates. May produce an allergic reaction.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · **Description**: Adhesive
- · Dangerous components:

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

>5-<10%

EC number: 618-498-9 & 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

EC number: 905-806-4 Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p->5-<10%

Reg.nr.: 01-2119457015-45 isocyanatobenzyl) phenyl isocyanate / methylene diphenyl

diisocvanate

🚯 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

Specific concentration limits: Skin Irrit. 2; H315: $C \ge 5$ %

Eye Irrit. 2; H319: $C \ge 5 \%$ Resp. Sens. 1; H334: $C \ge 0.1 \%$

STOT SE 3; H335: C ≥ 5 %

CAS: 4083-64-1 p-toluenesulphonyl isocyanate EINECS: 223-810-8 🚯 Resp. Sens. 1, H334; 아 Skin Irrit. 2, H315; Eye Irrit. 2, H319;

Reg.nr.: 01-2119980050-47 ŠTOT ŠE 3, H335, EUH014, EUH204

Specific concentration limits: Skin Irrit. 2; H315: $C \ge 5 \%$

Eye Irrit. 2; H319: $C \ge 5 \%$ *STOT SE 3; H335: C ≥ 5 %*

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>1-<u><</u>2.5%



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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
- · After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact Clean with water and soap. If possible, also wash with polyethylene glycol 400.
- · After eve contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing Do not induce vomiting; call for medical help immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

- · For safety reasons unsuitable extinguishing agents Water with full jet
- 5.2 Special hazards arising from the substance or mixture

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

- · 5.3 Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

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

· 6.2 Environmental precautions:

Do not allow to enter sewers/surface or ground water.

Do not allow product to reach sewage system or any water course.

· 6.3 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.

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.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- Requirements to be met by storerooms and containers: Store only in the original receptacle.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· 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:

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

WEL Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³

Sen; as -NCO

4083-64-1 p-toluenesulphonyl isocyanate

WEL Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³

Sen; as -NCO

· DNELs

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Dermal DNEL 27.8 mg/kg/day (workers (Short-term))

DNEL 17.2 mg/cm² (general population (short-term))

Inhalative DNEL 0.05 mg/m³ (general population (short-term))

 $0.025\ mg/m^{3}\ (general\ population\ (long\text{-}term))$

0.1 mg/m³ (workers (Short-term))

0.05 mg/m³ (workers (Long-term))

$Reaction \ mass \ of \ 4,4'-methylene diphenyl \ diisocyanate \ and \ o-(p-isocyanatobenzyl) phenyl \ isocyanate / methylene \ diphenyl \ diisocyanate$

Oral DNEL 20 mg/kg/day (consumers (Short-term))

Dermal DNEL 25 mg/kg/day (consumers (Short-term))

50 mg/kg/day (workers (Short-term))

DNEL 17.2 mg/cm² (consumers (Short-term))

28.7 mg/cm² (workers (Short-term))

Inhalative DNEL 0.05 mg/m³ (consumers (Short-term))

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 $0.025~mg/m^3~(consumers~(Long-term))$

0.1 mg/m³ (workers (Short-term))

0.05 mg/m³ (workers (Long-term))

4083-64-1 p-toluenesulphonyl isocyanate

Oral DNEL 0.46 mg/kg (consumers (Long-term))

Dermal DNEL 0.46 mg/kg (consumers (Long-term))

0.92 mg/kg (workers (Long-term))

Inhalative DNEL 0.8 mg/m³ (consumers (Long-term))

3.24 mg/m³ (workers (Long-term))

· PNECs

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

PNEC 1 mg/l (Freshwater)

0.1 mg/l (Sea water)

10 mg/l (Water - partially release)

1 mg/l (Purification plant)

PNEC 1 mg/kg (Soil)

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate

PNEC 1 mg/l (Freshwater)

0.1 mg/l (Sea water)

1 mg/l (Purification plant)

PNEC 1 mg/kg (Soil)

4083-64-1 p-toluenesulphonyl isocyanate

PNEC 0.03 mg/l (Freshwater)

0.003 mg/l (Sea water)

0.4 mg/l (Purification plant)

PNEC 0.017 mg/kg (Soil)

0.017 mg/kg (Sediment (Sea water))

0.172 mg/kg (Sediment (Freshwater))

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

Use suitable respiratory protective device in case of insufficient ventilation.

If the occupational exposure limit is exceeded.

· Recommended filter device for short term use: Combination filter A-P2

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· Hand protection



Protective gloves

Preventive skin protection by use of skin-protecting agents is recommended.

· Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.35 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· 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 goggles

· Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

Physical state
Colour:
Smell:
Odour threshold:
Melting point/freezing point:
Fluid
Dark brown
Characteristic
Not determined.
Undetermined.

· Boiling point or initial boiling point and boiling

range 214 °C

· Flammability Not applicable.

· Lower and upper explosion limit

 · Lower:
 0.3 Vol %

 · Upper:
 2.8 Vol %

 · Flash point:
 172 °C

 · Auto-ignition temperature:
 345 °C

Decomposition temperature:
 pH
 Not determined.
 Mixture reacts violently with water.

· Viscosity:

· Kinematic viscosity Not determined.

· kinematic (calculated) at 40°C:

· dynamic at 20 °C: 120,000 mPas (ISO 2555)

·Solubility

• Water: Not miscible or difficult to mix.

• Partition coefficient n-octanol/water (log value) Not determined. • Steam pressure: Not determined.

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· Density and/or relative density

• **Density at 20 °C** 1.6 g/cm³ (EN ISO 2811-1)

Relative densityVapour densityNot determined.Not determined.

· 9.2 Other information

· Appearance:

· Form: Pasty

· Important information on protection of health and

environment, and on safety.

· Self-inflammability: Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

• Organic solvents: 0.0 % • VOC 0.0 %

· Change in condition

· Evaporation rate Not determined.

· Information with regard to physical hazard classes

Void · Explosives Void · Flammable gases Void · Aerosols Void · Oxidising gases Void · Gases under pressure · 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 Voidgases in contact with water · Oxidising liquids Void · Oxidising solids Void · Organic peroxides Void

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability

Corrosive to metalsDesensitised explosives

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Void

Void

- · 10.3 Possibility of hazardous reactions Reacts with alcohols, amines, aqueous acids and alkalis.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.

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· LD/LC50 values that are relevant for classification:

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral LD50 >10,000 mg/kg (Rat) (OECD RL 401)
Dermal LD50 >9,400 mg/kg (rabbit) (OECD RL 402)

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate

Oral LD50 > 10,000 mg/kg (Rat)

Dermal LD50 > 9,400 mg/kg (rabbit)

Inhalative LC50 0.49 mg/l (Rat)

4083-64-1 p-toluenesulphonyl isocyanate

Oral LD50 2,330 mg/kg (Rat)

· Skin corrosion/irritation

Causes skin irritation.

- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · 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 Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity:

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

LC50/96h > 1,000 mg/l (Danio rerio)

LC0/96h >1,000 mg/l (Brachydanio rerio)

EC50/24h > 100 mg/l (bacteriums)

EC50/48h >1,000 mg/l (Daphnia magna)

EC50/3h > 100 mg/l (sludge) (OECD 209)

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate/methylene diphenyl diisocyanate

EC50/24h >1,000 mg/l (Daphnia magna)

4083-64-1 p-toluenesulphonyl isocyanate

LC50/96h 597 mg/l (Brachydanio rerio)

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>45 mg/l (Oncorhynchus mykiss)

EC50 2,511 mg/l (bacteriums)

EC50/48h >100 mg/l (Daphnia magna)

EC50/72h 25 mg/l (Pseudokirchneriella subcapitata)

- · 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 (German Regulation) (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.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Must be specially treated adhering to official regulations.

- · 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: Not applicable.
 14.6 Special precautions for user Not applicable.

· 14.7 Maritime transport in bulk according to IMO

instruments Not applicable.

• Transport/Additional information: Not dangerous according to the above specifications.

· UN "Model Regulation": Void

- GB



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SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Poisons Act
- · Regulated explosives precursors

None of the ingredients is listed.

· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · National regulations
- · VOC (EU) 0.0 g/l
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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 organs through prolonged or repeated exposure.

EUH014 Reacts violently with water.

EUH204 Contains isocyanates. May produce an allergic reaction.

· 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

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

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

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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