

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2022

Version number 10 (replaces version 7)

Revision: 27.06.2022

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

- **1.1 Product identifier**
- **Trade name:** WAKOL PU 4519 2K-PU Accelerator
- **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** Catalyst
- **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 +49 (0)6132-84463

**SECTION 2: Hazards identification**

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



corrosion

Eye Dam. 1 H318 Causes serious eye damage.

- **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**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
triethylenediamine
- **Hazard statements**  
H318 Causes serious eye damage.
- **Precautionary statements**  
P280 Wear protective gloves / eye protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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· **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 280-57-9 triethylenediamine  $\geq 3 - \leq 5\%$   
EINECS: 205-999-9  Flam. Sol. 1, H228;  Eye Dam. 1, H318;  Acute Tox. 4, H302;  
Reg.nr.: 01-2119980944-22 Skin Irrit. 2, H315

· **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 eye 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**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

· **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:** Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:** 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 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.

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See Section 13 for disposal information.

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**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **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:** Store in cool, dry conditions in well sealed receptacles.
- **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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **DNELs**
- 25265-71-8 Dipropylene glycol (isomer unspecified)**
- Oral DNEL 24 mg/kg/day (consumer (long-term))
- Dermal DNEL 51 mg/kg/day (consumer (long-term))  
84 mg/kg/day (worker (long-term))
- Inhalative DNEL 70 mg/m<sup>3</sup> (consumer (long-term))  
238 mg/m<sup>3</sup> (worker (long-term))
- 280-57-9 triethylenediamine**
- Inhalative DNEL 3.6 mg/m<sup>3</sup> (workers (short-term))  
1.2 mg/m<sup>3</sup> (worker (long-term))
- **PNECs**
- 280-57-9 triethylenediamine**
- PNEC 0.1 mg/l (freshwater)  
0.01 mg/l (sea water)  
1 mg/l (water - partially release)  
200 mg/l (purification plant)
- PNEC 0.19 mg/kg (soil)  
0.13 mg/kg (sediment (sea water))  
1.3 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 item 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.  
Wash hands before breaks and at the end of work.

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- **Breathing equipment:** Not necessary if room is well-ventilated.
- **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:  $\geq 0.35$  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 through 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**

Fluid

- **Colour:**

Colourless

- **Smell:**

Ammonia-like

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Undetermined.

- **Boiling point or initial boiling point and boiling range**

150 °C

- **Flammability**

Not applicable.

- **Lower and upper explosion limit**

- **Lower:**

Not determined.

- **Upper:**

Not determined.

- **Flash point:**

>110 °C

- **Decomposition temperature:**

Not determined.

- **pH**

Not determined.

- **Viscosity:**

- **Kinematic viscosity**

Not determined.

- **kinematic (calculated) at 40°C:**

- **dynamic at 20 °C:**

850 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 g/cm<sup>3</sup> (EN ISO 2811-1)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **9.2 Other information**
- **Appearance:**
- **Form:** Liquid
- **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.
- **VOC** 0.00 %
- **Change in condition**
- **Evaporation rate** Not determined.
- **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.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong acids and oxidising agents.
- **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:****25265-71-8 Dipropylene glycol (isomer unspecified)**

Oral LD50 &gt;5,000 mg/kg (rat)

Dermal LD50 &gt;5,000 mg/kg (rabbit)

Inhalative LC50 &gt;6 mg/l (rat)

**280-57-9 triethylenediamine**

Oral LD50 700 mg/kg (rat)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **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:****25265-71-8 Dipropylene glycol (isomer unspecified)**

LC50/24h &gt;5,000 mg/l (piscarius)

EC50/48h >100 mg/l (*Daphnia magna*)EC50/72h >100 mg/l (*Scenedesmus subspicatus*)EC10/16h >1,000 mg/l (*Pseudomonas putida*)**280-57-9 triethylenediamine**LC50/96h >100 mg/l (*Cyprinus carpio*)EC50/48h >100 mg/l (*Daphnia magna*)EC50/72h 180 mg/l (*Selenastrum capricornutum*)

- **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

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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** Void

**· Class****· 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

### **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 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**

H228 Flammable solid.

H302 Harmful if swallowed.

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*H315 Causes skin irritation.*

*H318 Causes serious eye damage.*

**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*

*Flam. Sol. 1: Flammable solids – Category 1*

*Acute Tox. 4: Acute toxicity – Category 4*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*

GB