

# SAFETY DATA SHEET

## 1. PRODUCT

### 1.1 Product identifiers

Name: Magnesium oxide

CAS-No.: 1309-48-4

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

Identified uses : Laboratory chemicals, Manufacture of substances

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

### 2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No data available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Formula: MgO  
Molecular weight: 40.30 g/mol  
CAS-No.: 1309-48-4  
EC-No.: 215-171-9

#### Hazardous components

| Component       | Classification | Concentration |
|-----------------|----------------|---------------|
| Magnesium oxide |                | <= 100 %      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

|  |
|--|
| <b>General advice</b>  |
| No data available  |
| <b>If inhaled</b>  |
| If breathed in, move person into fresh air. If not breathing, give artificial respiration. |
| <b>In case of skin contact</b>   |
| Wash off with soap and plenty of water.  |
| <b>In case of eye contact</b>  |
| Flush eyes with water as a precaution.   |
| <b>If swallowed</b>  |
| Never give anything by mouth to an unconscious person. Rinse mouth with water.             |

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### **4.2 Indication of any immediate medical attention and special treatment needed**

No data available

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### **5. FIREFIGHTING MEASURES**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2 Special hazards arising from the substance or mixture**

Magnesium oxide

#### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4 Further information**

No data available

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### **6. ACCIDENTAL RELEASE MEASURES**

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

Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8.

#### **6.2 Environmental precautions**

No special environmental precautions required.

#### **6.3 Methods and materials for containment and cleaning up**

Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### **6.4 Reference to other sections**

For disposal see section 13.

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### **7. HANDLING AND STORAGE**

#### **7.1 Precautions for safe handling**

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

#### **7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

Air and moisture sensitive. Keep in a dry place.

Storage class (TRGS 510): Non Combustible Solids

#### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

## 8.1 Control parameters

### Components with workplace control parameters

| Component       | CAS-No.   | Value  | Control parameters          | Basis   |
|-----------------|-----------|--|-----------------------------|---|
| Magnesium oxide | 1309-48-4 | TWA  | 10 mg/m <sup>3</sup>        | USA. ACGIH Threshold Limit Values (TLV)   |
|                 | Remarks   | Upper Respiratory Tract irritation metal fume fever Not classifiable as a human carcinogen |                             |   |
|                 |           | TWA  | 10.000000 mg/m <sup>3</sup> | USA. ACGIH Threshold Limit Values (TLV)   |
|                 |           | Upper Respiratory Tract irritation metal fume fever Not classifiable as a human carcinogen |                             |   |
|                 |           | TWA  | 15.000000 mg/m <sup>3</sup> | USA. Occupational Exposure Limits (OSHA) -Table Z-1 Limits for Air Contaminants |
|                 |           | See Appendix D -Substances with No Established RELs  |                             |   |
|                 |           | TWA  | 15.000000 mg/m <sup>3</sup> | USA. Occupational Exposure Limits (OSHA) -Table Z-1 Limits for Air Contaminants |

## 8.2 Exposure controls

### Appropriate engineering controls

General industrial hygiene practice.

### Personal protective equipment

|                                   |   |
|-----------------------------------|---|
| Eye/face protection               | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).   |
| Skin protection                   | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.<br>Full contact<br>Material: Nitrile rubber<br>Minimum layer thickness: 0.11 mm<br>Break through time: 480 min<br>Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)<br>Splash contact<br>Material: Nitrile rubber<br>Minimum layer thickness: 0.11 mm<br>Break through time: 480 min<br>Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)<br>data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374<br>If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. |
| Body Protection                   | Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.   |
| Respiratory protection            | Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).   |
| Control of environmental exposure | No special environmental precautions required.  |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|   |   |
|---|---|
| Appearance                              | Form: powder<br>Colour: white                   |
| Odour                                   | No data available                               |
| Odour Threshold                         | No data available                               |
| pH                                      | No data available                               |
| Melting point/freezing point            | Melting point/range: 2,852 °C (5,166 °F) - lit. |
| Initial boiling point and boiling range | 3,600 °C (6,512 °F) at 1,013 hPa (760 mmHg)     |
| Flash point                             | Not applicable                                  |

|  |                         |
|--|-------------------------|
| Evaporation rate                             | No data available       |
| Flammability (solid, gas)                    | No data available       |
| Upper/lower flammability or explosive limits | No data available       |
| Vapour pressure                              | No data available       |
| Vapour density                               | No data available       |
| Relative density                             | 3.580 g/cm <sup>3</sup> |
| Water solubility                             | insoluble               |
| Partition coefficient: n-octanol/water       | No data available       |
| Auto-ignition temperature                    | No data available       |
| Decomposition temperature                    | No data available       |
| Viscosity                                    | No data available       |
| Explosive properties                         | No data available       |
| Oxidizing properties                         | No data available       |

## 9.2 Other safety information

No data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Air sensitive.

### 10.5 Incompatible materials

Strong oxidizing agents, May react violently with:., phosphorous pentachloride, Strong acids

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

|  |
|--|
| <b>Acute toxicity</b>  |
| No data available<br>Inhalation: No data available<br>Dermal: No data available<br>No data available |
| <b>Skin corrosion/irritation</b>   |
| No data available  |
| <b>Serious eye damage/eye irritation</b>   |
| No data available  |
| <b>Respiratory or skin sensitisation</b>   |
| No data available  |
| <b>Germ cell mutagenicity</b>  |
| No data available  |
| <b>Carcinogenicity</b>   |

|  |
|--|
| <p>Carcinogenicity - Hamster - Intratracheal<br/> Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Olfaction: Tumors. Lungs, Thorax, or Respiration: Tumors.<br/> IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.<br/> NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.<br/> OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.</p> |
| <p><b>Reproductive toxicity</b></p>  |
| <p>No data available<br/> No data available</p>  |
| <p><b>Specific target organ toxicity -single exposure</b></p>  |
| <p>No data available</p>   |
| <p><b>Specific target organ toxicity -repeated exposure</b></p>  |
| <p>No data available</p>   |
| <p><b>Aspiration hazard</b></p>  |
| <p>No data available</p>   |
| <p><b>Additional Information</b></p>   |
| <p>RTECS: OM3850000<br/> Ingestion or inhalation of a large quantity may cause a feverish reaction and leukocytosis., Diarrhoea</p>  |

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

No data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

|   |
|---|
| <p><b>Product</b></p>   |
| <p>Offer surplus and non-recyclable solutions to a licensed disposal company.</p> |
| <p><b>Contaminated packaging</b></p>  |
| <p>Dispose of as unused product.</p>  |

## 14. TRANSPORT INFORMATION

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

**IATA**

Not dangerous goods

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**15. REGULATORY INFORMATION****SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

No SARA Hazards

**Massachusetts Right To Know Components**

| Component       | CAS-No.   | Revision Date |
|-----------------|-----------|---------------|
| Magnesium oxide | 1309-48-4 | 2007-03-01    |

**Pennsylvania Right To Know Components**

| Component       | CAS-No.   | Revision Date |
|-----------------|-----------|---------------|
| Magnesium oxide | 1309-48-4 | 2007-03-01    |

**New Jersey Right To Know Components**

| Component       | CAS-No.   | Revision Date |
|-----------------|-----------|---------------|
| Magnesium oxide | 1309-48-4 | 2007-03-01    |

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**16. OTHER INFORMATION****HMIS Rating**

Health hazard: 0

Chronic Health Hazard:

Flammability: 0

Physical Hazard 0

**NFPA Rating**

Health hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0