

**MAGNESIUM OXIDE****0504**

September 1997

CAS No: 1309-48-4  
RTECS No: OM3850000Calcined brucite  
Calcined magnesia  
Magnesia  
MgO  
Molecular mass: 40.3

| TYPES OF HAZARD/ EXPOSURE  | ACUTE HAZARDS/SYMPTOMS                      | PREVENTION  | FIRST AID/FIRE FIGHTING   |
|--|---|---|---|
| <b>FIRE</b>  | Not combustible.                            | NO contact with halogens or strong acids.                                   | In case of fire in the surroundings: all extinguishing agents allowed.  |
| <b>EXPLOSION</b>   |   |   |   |
| <b>EXPOSURE</b>  |   | <b>PREVENT DISPERSION OF DUST!</b>  |   |
| <b>Inhalation</b>  | Cough. See Notes.                           | Local exhaust or breathing protection.                                      | Fresh air, rest.  |
| <b>Skin</b>  |   |   | Remove contaminated clothes. Rinse skin with plenty of water or shower.   |
| <b>Eyes</b>  | Redness. Pain.                              | Safety goggles, or eye protection in combination with breathing protection. | First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor. |
| <b>Ingestion</b>   | Diarrhoea.                                  | Do not eat, drink, or smoke during work.                                    | Rinse mouth. Refer for medical attention.   |
| <b>SPILLAGE DISPOSAL</b>   | <b>PACKAGING &amp; LABELLING</b>            |   |   |
| Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water (extra personal protection: P1 filter respirator for inert particles). |   |   |   |
| <b>EMERGENCY RESPONSE</b>  | <b>SAFE STORAGE</b>                         |   |   |
|  | Separated from strong acids, halogens. Dry. |   |   |

### IMPORTANT DATA

**Physical State; Appearance**

HYGROSCOPIC, FINE, WHITE POWDER.

**Chemical dangers**

Reacts violently with halogens and strong acids.

**Occupational exposure limits**

TLV: 10 mg/m<sup>3</sup> (Inhalable fraction) A4 (not classifiable as a human carcinogen); (ACGIH 2006).  
MAK: 1.5 mg/m<sup>3</sup> (Respirable fraction); 4 mg/m<sup>3</sup> (Inhalable fraction). As magnesium oxide fume: IIb (not established but data is available) (DFG 2006).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its aerosol or fume and by ingestion.

**Inhalation risk**

Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly when dispersed.

**Effects of short-term exposure**

The substance irritates the eyes and the nose. Inhalation of fume may cause metal fever.

### PHYSICAL PROPERTIES

Boiling point: 3600°C  
Melting point: 2800°C

Relative density (water = 1): 3.6  
Solubility in water: poor

### ENVIRONMENTAL DATA

### NOTES

Headache, cough, sweating, nausea and fever may be caused by exposure to freshly formed fumes. The symptoms of metal fume fever do not become manifest until 4-12 hours after exposure. Magcal, Maglite, Magox, Akro-Mag, Animag, Granmag, Magchem 100, Marmag are trade names. Card has been partially updated in July 2007: see Occupational Exposure Limits.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

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