

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifiers

Product name: **MAGNESIUM OXIDE**

CAS-No.: **1309-48-4**

Product Number: **A69048**

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

Identified uses: Laboratory chemicals, Manufacture of substances

### 1.3 Details of the supplier of the safety data sheet

Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR,

UNITED KINGDOM

Telephone: +44 (0)845 1200 506 Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

### 1.4 Emergency telephone number

Emergency Phone #: **+44 (0)845 1200 506**

## 2. HAZARDS IDENTIFICATION

Not a dangerous substance according to GHS.

This substance is not classified as dangerous according to Directive 67/548/EEC.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

#### Magnesium oxide

Formula: **MgO**

Molecular Weight: **40.3**

CAS-No.: **1309-48-4**

EC-No.: **215-171-9**

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact:** Wash off with soap and plenty of water.

**In case of eye contact:** Flush eyes with water as a precaution.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water.

**4.2 Most important symptoms and effects, both acute and delayed:** no data available

**4.3 Indication of immediate medical attention and special treatment needed:** no data available

## 5. FIRE-FIGHTING 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:** no data available

**5.3 Precautions for fire-fighters:** Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information:** no data available

## 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:** Avoid dust formation.

**6.2 Environmental precautions:** Do not let product enter drains.

**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.

## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling:** Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Air and moisture sensitive.

**7.3 Specific end uses:** no data available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Update
Magnesium oxide	1309-48-4	TWA	4mg/m <sup>3</sup>	2007-08-01

UK. EH40 WEL - Workplace Exposure Limits. Remarks For the purposes of these limits, respirable dust and inhalable dust are those fractions of the airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, as amended by the ISO/CEN convention.

The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 4mg/m<sup>3</sup> 8-hour TWA of inhalable dust or 4 mg/m<sup>3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are

exposed above these levels. Advice on control is given in EH44 and in the great majority of workplaces reasonable control measures will normally keep exposure below these levels. However some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit.

Most of industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS 14/3. Where dusts contain components that have their own assigned workplace exposure limits, all the relevant limits should be complied with.

The word 'fume' is often used to include gases and vapours. This is not the case for exposure limits where 'fume' should normally be applied to solid particles generated by chemical reactions or condensed from the gaseous state, usually after volatilization from melted substances. The generation of fume is often accompanied by a chemical reaction such as oxidation or thermal breakdown.

Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used

## **8.2 Exposure controls**

**Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### **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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**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).

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

- a) Appearance: **Form:** Powder **Colour:** White
- b) Odour: no data available
- c) Odour Threshold: no data available
- d) pH: no data available
- e) Melting/freezing point: 2,852 °C Melting point/range: no data available
- f) Initial boiling point and boiling range: 3,600 °C at 1,013 hPa
- g) Flash point: no data available
- h) Evaporation rate: no data available
- i) Flammability (solid, gas): no data available
- j) Upper/lower flammability or explosive limits: no data available
- k) Vapour pressure: no data available
- l) Vapour density: no data available
- m) Relative density: 3.580 g/cm<sup>3</sup>
- n) Water solubility: no data available
- o) Partition coefficient: n-octanol/water: no data available
- p) Autoignition temperature: no data available
- q) Decomposition temperature: no data available
- r) Viscosity: no data available
- s) Explosive properties: no data available
- t) 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:** Hazardous decomposition products formed under fire conditions. - Magnesium oxide

## **11. TOXICOLOGICAL INFORMATION**

### **11.1 Information on toxicological effects**

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** Carcinogenicity - Hamster – Intratracheal. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction: Tumors. Lungs, Thorax, or Respiration: Tumors.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

#### **Potential health effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Signs and Symptoms of Exposure:** Ingestion or inhalation of a large quantity may cause a feverish reaction and leukocytosis., Diarrhoea

**Additional Information:** RTECS: OM3850000

## **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:** no data available

**12.6 Other adverse effects:** no data available

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

**Product:** Observe all federal, state, and local environmental regulations.

**Contaminated packaging:** Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### 14.1 UN-Number

ADR/RID: - IMDG: - IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

### 14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

### 14.6 Special precautions for users

no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:** no data available

**15.2 Chemical Safety Assessment:** no data available

## 16. OTHER INFORMATION

no data available