

Magnesium Oxide

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

1.1 Product identifier

Product name:	Magnesium Oxide
CAS Number:	1309-48-4
EC Number:	215-171-9

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

Identified uses: pH modifier.

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd 20 Clough Road, Severalls Industrial Park Colchester, Essex, CO4 9QS United Kingdom
---------------	---

Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274
----------------------	---------------

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.
Classification (67/548/EEC)	Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2 Label elements

Label In Accordance With (EC) No. 1272/2008
No pictogram required.

2.3 Other hazards

Not Classified as PBT/vPvB by current EU criteria.

Magnesium Oxide

Section 3: Composition/information on ingredients

3.1 Substances

MAGNESIUM OXIDE	60- 100%
CAS-No.:	1309-48-4
EC No.:	215-171-9
Classification (EC 1272/2008)	Not classified.
Classification (67/548/EEC)	Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

REACH Registration notes

This product is exempt from REACH registration according to EC Regulation 1907/2006 Article 2 § 7 b and Annex V, point 7.

Composition Comments

The data shown is in accordance with the latest EC Directives.

Section 4: First aid measures

4.1 Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. If respiratory problems artificial respiration/oxygen. Get medical attention if any discomfort continues.

Ingestion

Immediately give a couple of glasses of water or milk, provided the victim is fully conscious. Get medical attention if any discomfort continues.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop as described the casualty should be transferred to hospital as soon as possible. For further information, please refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Magnesium Oxide

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:

Suitable extinguishing media: Water spray, foam, dry powder or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

When heated, vapours/gases hazardous to health may be formed.

Unusual Fire & Explosion Hazards

High concentrations of dust may form explosive mixture with air.

5.3 Advice for firefighters

Special Fire Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

Protective equipment for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2 Environmental precautions

Do not allow to enter drains, sewers or watercourses.

6.3 Methods and material for containment and cleaning up

Remove sources of ignition. Avoid generation and spreading of dust. Shovel into dry containers. Cover and move the containers. Flush the area with water.

6.4 Reference to other sections

For waste disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid inhalation of dust and contact with skin and eyes. Avoid handling which leads to dust formation. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Remove contaminated clothing. Do not eat, drink, or smoke when using the product.

Magnesium Oxide

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool, and well-ventilated place. Avoid contact with: Water, moisture. Interhalogens Aluminium. Magnesium. Powder. Avoid contact with acids. Oxidising materials. Storage Class Chemical storage.

7.3 Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Name	STD	TWA – 8 Hrs		STEL – 15 Min		Notes
Magnesium Oxide	WEL		10 mg/m ³			As Mg

WEL = Workplace Exposure Limit.
No biological limit allocated.

8.2 Exposure controls

Protective equipment



Process conditions

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Engineering measures

Provide adequate general and local exhaust ventilation.

Respiratory equipment

Respiratory protection must be used if air contamination exceeds acceptable level. Dust filter P2 (for fine dust).

Hand protection

For prolonged or repeated skin contact use suitable protective gloves. Rubber or plastic.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact. Provide eyewash station.

Magnesium Oxide

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash hands after handling. Promptly remove any clothing that becomes wet or contaminated

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Solid
Colour	White
Odor	Odourless
Solubility	Insoluble in water
Initial boiling point and boiling range	3600°C (°C)
Melting point (°C)	2802°C
Relative density	3.58 - 3.65 g/cm ³
pH-Value, Conc. Solution	10.3 @ 20°C
Solubility Value	(G/100G 0.006 g/l H ₂ O@20°C)

9.2 Other information

Not relevant

Section 10: Stability and Reactivity

10.1 Reactivity	There are no known reactivity hazards associated with this product.
10.2 Chemical Stability	Stable under normal temperature conditions and recommended use.
10.3 Possibility of hazardous reactions	Avoid contact with: Interhalogens
10.4 Conditions to avoid	Avoid contact with: Water, moisture.
10.5 Incompatible materials	Avoid contact with acids. Oxidising materials. Aluminium. Magnesium. Powder.
10.6 Hazardous decomposition products	When heated, vapours/gases hazardous to health may be formed.

Section 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Dermal LD₅₀)

Aspiration hazard:

Inhalation

Ingestion

> 2 mg/kg Rabbit

Not anticipated to present an aspiration hazard based on chemical structure.

Dust may irritate respiratory system or lungs.

May cause discomfort if swallowed.

Magnesium Oxide

Skin contact	Prolonged and frequent contact may cause redness and irritation.
Eye contact	Particles in the eyes may cause irritation and smarting.
Route of entry	No route of entry noted.
Target Organs	No specific target organs noted

Section 12: Ecological Information

Ecotoxicity

Contact M-I SWACO's QHSE Department for ecological information at M-ISWACOenv@slb.com. OSPAR have defined this chemical as PLONOR.

12.1. Toxicity

Acute Fish Toxicity	Not considered toxic to fish.
---------------------	-------------------------------

12.2. Persistence and degradability

Degradability	Not Applicable – Inorganic chemical.
---------------	--------------------------------------

12.3. Bioaccumulative potential

Bioaccumulative potential	Not Applicable - Inorganic chemical.
---------------------------	--------------------------------------

12.4. Mobility in soil

Mobility	The product is insoluble in water.
----------	------------------------------------

12.5. Results of PBT and vPvB assessment

	Not Classified as PBT/vPvB by current EU criteria.
--	--

12.6. Other adverse effects

	None known.
--	-------------

Section 13: Disposal considerations

13.1 Waste treatment methods

Recover and reclaim or recycle if practical. Dispose of waste and residues in accordance with local authority requirements.

Waste Class

The definitive European Waste code for this product will depend upon the final use that is made of this material. EWC-code: 06 03 14

Section 14: Transport Information

General - The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID). and (ADG).

Magnesium Oxide

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant - No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Uk Regulatory References**

Chemicals (Hazard Information & Packaging) Regulations. Control of Substances Hazardous to Health Regulations 2002 (as amended) Workplace Exposure Limits EH40. EU Legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

Water hazard classification WGK 1

15.2. Chemical Safety Assessment**International Chemical Inventories**

This product is exempt from REACH registration according to EC Regulation 1907/2006 Article 2 § 7 b and Annex V, point 7. Complies with the following national/regional chemical inventory requirements: Australia (AICS), Canada (DSL / NDSL), China (IECSC), Europe (EINECS / ELINCS), Japan (METI / ENCS), Korea (TCCL / ECL), New Zealand (NZIoC), Phillipines (PICCS), United States (TSCA).