

SAFETY DATA SHEET
Magnesium Oxide

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Issued: 04/08/2026
Revision No: 2

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product Name: MAGNESIUM OXIDE

EC Number: 215-171-9

CAS No: 1309-48-4

Synonyms: MAGNESIUMOXID REAMAG PULVER, MAGNESIUMOXID 94% REAMAG RD05, MAGNESIUMOXID GRANULAR DC PHARMA, MAGNESIUMOXID 96% MgO, MAGNESIUMOXID REAMAG 92%, MAGNESIUM OXIDE CHINESE 92%, ACTIVEMAG 140, ACTIVE MAG 170, MAGNESIUM OXIDE NR 11, MAGNESIUM OXIDE B, PURMAG 140, MAG OXIDE HEAVY (2923), MAG OXIDE M98 O&G, MAG OXIDE FEEDMAG S, MAG OXIDE REAMAG B3, MAG OXIDE REAMAG B5, MAGNESIUM OXIDE HSA, AK98 PREMIUM VHR 45, PHARMAGNESIA MO TYPE E, MAG OXIDE 97%, MICROBOND M HLN, MAG OXIDE M98, MAG OXIDE 83 CG, MAGNESIUM OXIDE SIC, MAG OXIDE LIGHT.

Pure substance/mixture: Substance

Molecular weight: 40.3

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

Recommended use: Chemical
Food industry
Pharmaceuticals
Cosmetics
Industrial application

Details of the supplier of the safety data sheet:

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture: Not classified

Label elements: Not classified

Hazard statements: Not classified

Other hazards: No information available.

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances:

Chemical name	Weight-%	EC No. (EU Index No)	UK REACH reg no	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
MAGNESIUM OXIDE 1309-48-4	<=100%	215-171-9	-	Not classified	-	-	-

Full text of H- and EUH-phrases: See section 16.

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59).

4. FIRST AID MEASURES

Description of first aid measures:

General advice:	First aid personnel should wear appropriate protective equipment during any rescue. Get medical attention if symptoms occur.
Inhalation:	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Get medical attention if symptoms occur.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.
Skin contact:	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if symptoms occur.
Ingestion:	Rinse mouth thoroughly with water. Do NOT induce vomiting. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed:

Eyes:	Dust contact with the eyes can lead to mechanical irritation.
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Indication of any immediate medical attention and special treatment needed:

Note to doctors:	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire:	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media:	Do not scatter spilled material with high pressure water streams.

Special hazards arising from the substance or mixture:

Specific hazards arising from the chemical: When heated and in case of fire, toxic vapours/gases may be formed.

Hazardous combustion products: Carbon oxides.

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Advice for firefighters:

Special protective equipment and precautions for fire-fighters:

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing. Avoid breathing dust.

For emergency responders: Use personal protection recommended in Section 8.

Environmental precautions: See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up:

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections: See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling:

Advice on safe handling: Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing. Do not breathe dust. Avoid generation of dust. Avoid release to the environment.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using the product. Wash hands and face before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities:

Specific end use(s):

Specific use(s): See section 1 for more information.

Risk Management Methods (RMM): The information required is contained in this Safety Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Exposure Limits:

Chemical name	United Kingdom
MAGNESIUM OXIDE 1309-48-4	TWA: 10 mg/m3 TWA: 4 mg/m3 STEL: 30 mg/m3 STEL: 12 mg/m3

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Biological occupational exposure limits: This product, as supplied, does not contain any hazardous materials with biological limits established by the region-specific regulatory bodies.

Derived No Effect Level (DNEL) – Workers: No information available

Derived No Effect Level (DNEL) - General Public: No information available.

Predicted No Effect Concentration (PNEC): No information available.

Exposure controls:

Engineering controls: No information available.

Personal protective equipment:

Eye/face protection: Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection: Wear suitable gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE-Glove material	Glove thickness	Break through time
	Wear protective nitrile rubber gloves	>=0.011 mm	>480 minutes

Skin and body protection: Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection: Use appropriate respiratory protection.

Particulates filter conforming to EN 143.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using the product. Wash hands and face before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Solid

Appearance: Solid. Dusty powder granules. Crystalline powder

Colour: White

Odour: Odourless

Odour threshold: No information available

Property	Values	Remarks • Method
Melting point / freezing point	2500 - 2852°C	
Initial boiling point and boiling range	~ 3580°C	@ 760 mmHg.
Flammability		The product is non-combustible
Flammability Limit in Air		Not applicable
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point		Not applicable
Autoignition temperature		Not applicable
Decomposition temperature	> 250°C	
pH	10.3 - 10.5	@ 20°C
pH (as aqueous solution)		No information available
Kinematic viscosity		Not relevant. Solid
Dynamic viscosity		Not relevant. Solid

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Property	Values	Remarks • Method
Water solubility	Insoluble in water To slightly soluble	
Solubility(ies)		No information available
Partition coefficient		Not relevant. Inorganic
Vapour pressure		No information available
Relative density	3.58 - 2.6	25°C
Bulk density		No information available
Liquid Density	No information available	No information available

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability:

Stability: Stable under normal conditions.

Explosion data:

Sensitivity to mechanical impact: None.

Sensitivity to static discharge: None.

Possibility of hazardous reactions: None under normal processing.

Conditions to avoid: Avoid generation of dust.

Incompatible materials: Acids.

Hazardous decomposition products: Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Information on likely routes of exposure:

Product Information:

Inhalation: Inhalation of dust in high concentration may cause irritation of respiratory system.

Eye contact: Dust contact with the eyes can lead to mechanical irritation.

Skin contact: Non-irritating during normal use.

Ingestion: May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics:

Symptoms: No information available.

Acute toxicity:

Numerical measures of toxicity:

Component Information:

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
MAGNESIUM OXIDE	= 3990 mg/kg (Rat) = 3870 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-

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Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Skin corrosion/irritation: Based on available data the classification criteria are not met.

Serious eye damage/eye 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.

Other adverse effects: No information available.

12. ECOLOGICAL INFORMATION

Toxicity:

Ecotoxicity: The environmental impact of this product has not been fully investigated.

Persistence and degradability: Inorganic substance.

MAGNESIUM OXIDE (1309-48-4)

Method	Exposure time	Value	Results
			Inorganic

Bioaccumulative potential:

Bioaccumulation: There is no data for this product.

Mobility in soil: Insoluble.

Results of PBT and vPvB assessment:

PBT and vPvB assessment: The product does not contain any substance(s) classified as PBT or vPvB.

Other adverse effects: No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Waste from residues/unused products: Dispose of in accordance with local regulations.

Dispose of waste in accordance with environmental legislation.

Contaminated packaging: Do not reuse empty containers.

14. TRANSPORT INFORMATION

IATA:

UN number or ID number: Not regulated

Transport hazard class(es): Not regulated

Packing group: Not regulated

Environmental hazards: No

Special precautions for user:

Special Provisions: None

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IMDG:

UN number or ID number: Not regulated

Transport hazard class(es): Not regulated

Packing group: Not regulated

Environmental hazards: No

Special precautions for user:

Special Provisions: None

Maritime transport in bulk according to IMO instruments: No information available

RID:

UN number or ID number: Not regulated

UN proper shipping name: Not regulated

Transport hazard class(es): Not regulated

Packing group: Not regulated

Environmental hazards: No

Special precautions for user:

Special Provisions: None

ADR:

UN number or ID number: Not regulated

UN proper shipping name: Not regulated

Transport hazard class(es): Not regulated

Packing group: Not regulated

Environmental hazards: No

Special precautions for user:

Special Provisions: None

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

National regulations:

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

This product does not contain substances subject to restriction (UK REACH - Annex XVII).

Persistent Organic Pollutants: Not applicable

Export Notification requirements: Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended): Not applicable

The Ozone-Depleting Substances Regulations 2015: Not applicable

The Biocidal Products Regulations 2001 (as amended): Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended): Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended): Not applicable

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International Inventories:

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	United States Toxic Substances Control Act Section 8(b) Inventory.
DSL/NDSL	Canadian Domestic Substances List/Non-Domestic Substances List.
EINECS/ELINCS	European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances.
ENCS	Japan Existing and New Chemical Substances.
IECSC	China Inventory of Existing Chemical Substances.
KECL	Korean Existing and Evaluated Chemical Substances.
PICCS	Philippines Inventory of Chemicals and Chemical Substances.
AIIC	Australian Inventory of Industrial Chemicals.
NZIoC	New Zealand Inventory of Chemicals.

Chemical safety assessment: No information available.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet:

Legend:

SVHC: Substances of Very High Concern for Authorisation

Section 8: Exposure controls/personal protection:

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value
*	Skin designation
+	Sensitisers

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

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