MAGNESIUM POWDER

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

1.1. Product identifier

Product name:	High Purity Atomized Spherical Magnesium (Mg) Powder
CAS Number:	7439-95-4
EC Number:	231-104-6

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

Product use: Laboratory chemicals, Industrial & for professional use only

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 according to 29 CFR 1910 (OSHA HCS)

H250	Pyr. Solid 1
H260	Water React. Flam. Gas 1

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

2.2 Label elements

Hazard Pictograms

Signal Word	Danger
Hazard Statements	
H228	Flammable solid.
H250	Catches fire spontaneously if exposed to air.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H260	In contact with water releases flammable gases which may ignite spontaneously.

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Precautionary Statements

P102	Keep out of reach of children.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P223	Do not allow contact with water.
P233	Keep container tightly closed.
P241	Use explosion-proof electrical / ventilating / lighting equipment.
P242	Use only non-sparking tools.
P261	Avoid breathing dust/fume/gas/vapors/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ eye protection/ face protection.
P312	Call a POISON CENTER/doctor if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P370 + P378	In case of fire: Use sand to extinguish.
P402 + P404	Store in a dry place. Store in a closed container.

2.3 Other Hazards
Not available

Section 3: Composition/information on ingredients

3.1 Substances

Synonyms	Atomized Magnesium, Atomized Spherical Magnesium
Formula	Mg
CAS Number	7439-95-4

3.2 Mixtures
Not applicable.

Section 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. Move out of dangerous area.
First-aid measures after inhalation
Provide fresh air. If not breathing, give artificial respiration. Get medical attention.

First-aid measures after skin contact
Wash off with plenty of water and soap. Remove contaminated clothing. Consult a physician.
First-aid measures after eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms develop.
First-aid measures after ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed
Inhalation of dusts or fumes may irritate the respiratory tract and may cause metal fume fever. Symptoms may include coughing, chest pain and fever. Magnesium generates an intense bring white light when burning which can cause irreversible eye injury if looked at directly without ocular protection.

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4.3 Indication of any immediate medical attention and special treatment needed
No data available.

4.4 Other Information
No data available.

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:

Suitable Extinguishing Media	G-1 Graphite Powder, Dry Sand, Met-L-X Powder
Unsuitable Extinguishing Media	Water, Foam, Chlorinated products

5.2 Special hazards arising from the substance or mixture
Use of water on molten magnesium will produce hydrogen gas and may cause an explosion.

5.3 Advice for firefighters
Special protective equipment for firefighters - Wear full protective clothing with self-contained breathing apparatus. Fire fighters should protect their eyes and skin from flying particles.

5.4 Further Information
In order to prevent eye injury, do not look directly at magnesium fires.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Remove all sources of ignition. Wear personal protective equipment. Avoid dust formation. Do not breathe dust. Do not smoke, eat or drink. Do not use water to clean the spill.

6.2 Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Do not use water. If the material comes in contact with water: Proceed with caution. Evacuate area. Hydrogen may generate a fire or an explosion. Wear full-protective equipment and let the spillage dry.
6.4 Reference to other sections
For further information refer to section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling
Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid dust formation. Handle in accordance with good industrial hygiene and safety practice.
Advice on Protection Against Fire and Explosion
Keep away from any possible contact with water. Use only non-sparking tools and equipment. Protect from moisture.

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7.2 Conditions for safe storage, including any incompatibilities
Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Keep away from heat and sources of ignition. Flammables area. Humidity in the storage unit should be less than 85%.
Incompatible Materials
Water, Bromine, Chlorine, Iodine, Acids, Oxidizers

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: Exposure controls/personal protection

8.1 Control parameters
No data available.

8.2 Exposure controls /
Appropriate engineering controls
Ensure adequate ventilation. Use explosion-proof electrical/ ventilating / lighting / equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Do not let dispersion of Magnesium dust into the general work area. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Hand Protection
Use antistatic gloves. 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.
Eye Protection
Eye protection (EN 166). Tightly fitting safety goggles with side shields.
Skin and Body Protection
Impervious and antistatic clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection
The EPA mandates the use of full-face respirators with minimum N100 grade cartridges if there is any risk of exposure to the dust. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Environmental Exposure Controls
Do not allow to enter into surface water or drains.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Powder
Colour	Silver-Gray
Odour	Odourless
Odour Threshold	No data available
pH	No data available
Relative Evaporation Rate	No data available

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Melting Point	650 °C
Freezing Point	650 °C
Boiling Point	No data available
Flash Point	No data available
Auto-ignition Temperature	>300 °C
Decomposition Temperature	No data available
Flammability (solid, gas)	No data available
Vapor Pressure	No data available
Relative vapor density at 20°C	No data available
Relative Density	1.74 g/cm3
Solubility in H2O	Reacts with water
Log Pow	No data available
Viscosity, Kinematic	No data available
Viscosity, Dynamic	No data available
Explosive Properties Lower:	No data available
Upper:	No data available
Oxidizing Properties	No data available

9.2 Other information
No other information available

Section 10: Stability and Reactivity

10.1 Reactivity	Water reactive.
10.2 Chemical Stability	Moisture sensitive. Pyrophoric. Magnesium when heated above 350°C may auto-ignite.
10.3 Possibility of hazardous reactions	Magnesium in contact with moisture or acids will generate hydrogen which is highly dangerous fire or explosion hazard. Magnesium in finely divided form will react violently with oxidizing agents.
10.4 Conditions to avoid	Avoid dust formation, incompatible products, exposure to air, exposure to moist air or water, excess heat
10.5 Incompatible materials	Water, Acids, Bases, Oxidizing Agents, Bromine, Chlorine, Iodine.
10.6 Hazardous decomposition products	Hydrogen, Magnesium Nitride, Nitrogen Oxides

Section 11: Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity Oral:	Not classified. Dermal: No data available. Respiratory: No data available.
Skin corrosion/irritation	Not irritating.
Serious eye damage/irritation	Not irritating.
Respiratory or Skin Sensitization	No effects known.
Germ Cell Mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive Toxicity	Not classified.
STOT-Single Exposure	No data available.

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STOT-Repeated Exposure	No data available.
Aspiration Hazard	No data available.

Section 12: Ecological Information

12.1 Toxicity

Ecology-general	Not classified.
Acute aquatic toxicity	No data available.
Chronic aquatic 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 — Do not allow product to enter surface waters, wastewater, or soil.

Section 13: Disposal considerations

13.1 Waste treatment methods

Product
Waste material that cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Processing, use or contamination of this product may change the waste management options. Dispose of in accordance with local regulations.

Contaminated Packaging
Dispose of as unused product.

Section 14: Transport Information

ADR	IMDG	IATA	RID
UN Number			
1418	1418	1418	1418
UN Proper Shipping Name			
MAGNESIUM POWDER	MAGNESIUM POWDER	MAGNESIUM POWDER	MAGNESIUM POWDER
Transport Document Description			
4.3, II, Substances which, in contact with water, emit flammable gases, Solid			
4.3, II, Substances which, in contact with water, emit flammable gases, Solid			
4.3, II, Substances which, in contact with water, emit flammable gases, Solid			
4.3, II, Substances which, in contact with water, emit flammable gases, Solid			

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.

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Section 15: Regulatory Information

15.1 Safety, health and environmental regulations
SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
SARA 313: 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.
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.

Section 16: Other Information

16.1 Abbreviation of acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IATA	International Air Transport Association
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
PBT	Persistent Bioaccumulative Toxic
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

16.2 Full text of H-statements
H250 Catches fire spontaneously if exposed to air.
H260 In contact with water releases flammable gases which may ignite spontaneously.

16.3 Hazard Classification

Health	0
Flammability	1
Reactivity	1
Special Hazards	

Disclaimer This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.