

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Magnesium

Product Number : 403148
Brand : Aldrich

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +18003255832
Fax : +18003255052
Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Flammable solid, Target Organ Effect

Target Organs

Central nervous system, Kidney, Cardiovascular system.

GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

Hazard statement(s)

H228 : Flammable solid.
H261 : In contact with water releases flammable gases.

Precautionary statement(s)

P210 : Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P231 + P232 : Handle under inert gas. Protect from moisture.
P240 : Ground/bond container and receiving equipment.
P241 : Use explosion-proof electrical/ventilating/lighting/equipment.
P280 : Wear protective gloves/protective clothing/eye protection/face protection.
P370 + P378 : In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P402 + P404 : Store in a dry place. Store in a closed container.
P501 : Dispose of contents/container to an approved waste disposal plant.

HMIS Classification

Health hazard: 0
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 2

NFPA Rating

Health hazard: 0
Fire: 0
Reactivity Hazard: 2

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : Mg
Molecular Weight : 24.31 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Magnesium (non pyrophoric)			
7439-95-4	231-104-6	012-002-00-9	-

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂) Dry powder

Extinguishing media which shall not be used for safety reasons

Water

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid dust formation. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Do not flush with water. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

Never allow product to get in contact with water during storage.

Store under inert gas. Air and moisture sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses with side-shields conforming to EN166

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form solid

Safety data

pH	no data available
Melting point	648 °C (1,198 °F)
Boiling point	1,090 °C (1,994 °F)
Flash point	no data available
Flammability (solid, gas)	The substance or mixture is a flammable solid with the subcategory 2.
Ignition temperature	510 °C (950 °F) -
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	1 hPa (1 mmHg) at 621 °C (1,150 °F)
Density	1.74 g/cm ³ at 25 °C (77 °F)
Water solubility	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks. Exposure to moisture.

Materials to avoid

Acids, Strong oxidizing agents, Acid chlorides, Halogens

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Magnesium oxide

11. TOXICOLOGICAL INFORMATION

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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure (GHS)

no data available

Specific target organ toxicity - repeated exposure (GHS)

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

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, chills, Fever, fatigue, muscle pain, joint pain, rash, Anorexia.

Additional Information

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS**Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

UN-Number: 1869 Class: 4.1 Packing group: III
 Proper shipping name: Magnesium
 Marine pollutant: No
 Poison Inhalation Hazard: No

IMDG

UN-Number: 1869 Class: 4.1 Packing group: III EMS-No: F-G, S-G
 Proper shipping name: MAGNESIUM
 Marine pollutant: No

IATA

UN-Number: 1869 Class: 4.1 Packing group: III
 Proper shipping name: Magnesium

15. REGULATORY INFORMATION**OSHA Hazards**

Flammable solid, Target Organ Effect

DSL Status

All components of this product are on the Canadian DSL list.

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.

SARA 311/312 Hazards

Fire Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

Magnesium (non pyrophoric)	CAS-No. 7439-95-4	Revision Date 1993-04-24
----------------------------	----------------------	-----------------------------

Pennsylvania Right To Know Components

Magnesium (non pyrophoric)	CAS-No. 7439-95-4	Revision Date 1993-04-24
----------------------------	----------------------	-----------------------------

New Jersey Right To Know Components

Magnesium (non pyrophoric)	CAS-No. 7439-95-4	Revision Date 1993-04-24
----------------------------	----------------------	-----------------------------

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.

16. OTHER INFORMATION**Further information**

Copyright 2010 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.
