

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Magnesium Oxide, Enriched Magnesium Oxide
Chemical Formula	MgO
Molecular Weight	40.31 amu
Synonyms	Akro-mag, Animag, Calcined brucite, Calcined magnesia, Calcined magnesite, Granmag, Magcal, Magchem 100, Maglite, Magnesia, Magnesia USTA, Magnesium oxide fume (ACGIH:OSHA), Magnezu tlenek (Polish), Magox, Magox 85, Magox 90, Magox 95, Magox 98, Magox OP, Marmag, Oxymag, Periclase, Seawater magnesia
CAS No.	1309-48-4
RTECS No.	OM3850000
Supplier Address*	ISOFLEX USA PO Box 472615 San Francisco CA 94147 United States
Telephone	+1 415-440-4433
Fax	+1 415-563-4433
Emergency Phone Number (both supplier and manufacturer)	Infotrac/ +1 800-535-5053
Email	*May include subsidiaries or affiliate companies/divisions iusa@isoflex.com
Website	www.isoflex.com
Preparation Information	ISOFLEX USA Product Safety +1 415-440-4433

2. HAZARDS IDENTIFICATION

NFPA Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 0 Flammability = 0 Reactivity = 1



HMIS Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 0 Flammability = 0 Physical Hazard = 1

HEALTH HAZARD	0
FLAMMABILITY	0
PHYSICAL HAZARD	1

Potential Health Effects

<i>Skin Contact</i>	May cause skin irritation
<i>Skin Absorption</i>	May be harmful if absorbed through the skin
<i>Eye Contact</i>	May cause eye irritation
<i>Inhalation</i>	Material may be irritating to mucous membranes and upper respiratory tract; may be harmful if inhaled
<i>Ingestion</i>	May be harmful if swallowed
<i>Signs and Symptoms of Exposure</i>	Ingestion or inhalation of a large quantity may cause a feverish reaction and leukocytosis. Exposure can cause diarrhea.

For additional information on toxicity, please refer to Section 10.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	Magnesium Oxide
CAS No:	1309-48-4
Chemical Formula:	MgO
Molecular Weight:	40.31 amu

4. FIRST AID MEASURES

<i>Oral Exposure</i>	If swallowed, wash out mouth with water provided person is conscious. Call a physician.
<i>Inhalation Exposure</i>	If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
<i>Dermal Exposure</i>	In case of contact, immediately wash skin with soap and copious amounts of water.
<i>Eye Exposure</i>	In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

5. FIREFIGHTING MEASURES

<i>Flash Point</i>	Not available
<i>Autoignition Temperature</i>	Not available
<i>Flammability</i>	Not available
<i>Suitable Extinguishing Media</i>	Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.
Firefighting	
<i>Protective Equipment</i>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<i>Specific Hazard(s)</i>	Emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

<i>Personal Precautions</i>	Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.
<i>Environmental Precautions</i>	Do not let product enter drains.
<i>Methods for Cleaning Up</i>	Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is

complete.

7. HANDLING AND STORAGE

Handling

User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage

Keep tightly closed in a dry and well-ventilated place. Air- and moisture- sensitive.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment

Respiratory

Wear dust mask

Hand

Protective gloves

Eye

Chemical safety goggles

General Hygiene Measures

Wash thoroughly after handling

Exposure Limits, RTECS

Country	Type	Value
USA	ACGIH	TWA 10 mg/m ³
USA	MSHA Standard-air	TWA 10 mg/m ³
USA	(FUME) OSHA	mg/m ³ PEL 8H TWA 15
New Zealand OEL		
Remarks: check ACGIH TLV		

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State

Solid

Form

Powder

Color

White

Safety Data

Molecular Weight:	40.31 amu	pH:	N/A
BP/BP Range:	3600 °C	MP/MP Range:	2800 °C
Freezing Point:	N/A	Vapor Pressure:	N/A
Vapor Density:	N/A	Saturated Vapor Concentration:	N/A
SG/Density:	3.58 g/cm ³	Bulk Density:	N/A
Odor Threshold:	N/A	Volatile%:	N/A
VOC Content:	N/A	Water Content:	N/A
Solvent Content:	N/A	Evaporation Rate:	N/A
Viscosity:	N/A	Surface Tension:	N/A
Partition Coefficient:	N/A	Decomposition Temperature:	N/A
Flash Point:	N/A	Explosion Limits:	N/A
Flammability:	N/A	Autoignition Temperature:	N/A
Refractive Index:	N/A	Optical Rotation:	N/A

Miscellaneous Data:	N/A	Solubility in Water:	Insoluble
Solvent:	0.1M in HCl5M, 20 °C complete, colorless		

10. STABILITY AND REACTIVITY

<i>Stable</i>	Stable
<i>Conditions of Instability</i>	Moisture sensitive. Absorbs carbon dioxide from air.
<i>Conditions to Avoid</i>	Air-sensitive
<i>Materials to Avoid</i>	Strong oxidizing agents. May react violently on mixing with phosphorous pentachloride, chlorine trifluoride, or bromine pentafluoride.
<i>Hazardous Decomposition Products</i>	Carbon monoxide, carbon dioxide
<i>Hazardous Polymerization</i>	Will not occur

11. TOXICOLOGICAL INFORMATION

Routes of Exposure

<i>Skin Contact</i>	May cause skin irritation
<i>Skin Absorption</i>	May be harmful if absorbed through the skin
<i>Eye Contact</i>	May cause eye irritation
<i>Inhalation</i>	Material may be irritating to mucous membranes and upper respiratory tract; may be harmful if inhaled
<i>Ingestion</i>	May be harmful if swallowed
<i>Signs and Symptoms of Exposure</i>	Ingestion or inhalation of a large quantity may cause a feverish reaction and leukocytosis. Exposure can cause diarrhea.
<i>Remarks</i>	Mild irritation effect

Acute Toxicity

<i>Inhalation</i>	No data available
<i>Dermal</i>	No data available
<i>Skin Corrosion/Irritation</i>	No data available
<i>Serious Eye Damage/Eye Irritation</i>	No data available
<i>Respiratory or Skin Sensitization</i>	No data available
<i>Germ Cell Mutagenicity</i>	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.

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

<i>NTP</i>	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.
<i>OSHA</i>	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.
<i>Reproductive Toxicity</i>	No data available
<i>Specific Target Organ Toxicity / Single Exposure</i>	No data available
<i>Specific Target Organ Toxicity / Repeated Exposure</i>	No data available
<i>Aspiration Hazard</i>	No data available
<i>Additional Information</i>	RTECS: OM3850000

Ingestion or inhalation of a large quantity may cause a feverish reaction, leukocytosis or diarrhea.

12. ECOLOGICAL INFORMATION

<i>Toxicity</i>	No data available
<i>Persistence and Degradability</i>	No data available
<i>Bioaccumulative Potential</i>	No data available
<i>Mobility in Soil</i>	No data available
<i>Results of PBT and vPvB Assessment</i>	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
<i>Other Adverse Effects</i>	No data available

13. DISPOSAL CONSIDERATIONS

<i>Product</i>	Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.
<i>Contaminated Packaging</i>	Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT

<i>Proper Shipping Name</i>	None
<i>Non-Hazardous for Transport</i>	This substance is considered to be non-hazardous for transport.

IATA

<i>Non-Hazardous for Air Transport</i>	Non-hazardous for air transport.
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Contact ISOFLEX for other transportation information.

15. REGULATORY INFORMATION

REACH Number

A registration number is not available for this substance, as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

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

No SARA Hazards

Massachusetts Right to Know Components

Magnesium oxide / CAS No. 1309-48-4 / Revision Date March 1, 2007

Pennsylvania Right to Know Components

Magnesium oxide / CAS No. 1309-48-4 / Revision Date March 1, 2007

New Jersey Right to Know Components

Magnesium oxide / CAS No. 1309-48-4 / Revision Date March 1, 2007

California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Prepared By

ISOFLEX USA
PO Box 472615
San Francisco CA 94147
United States

Issuing Date

January 12, 2014

Revision Date

October 16, 2024

Revision Number

4

Revision Note

Update supplier address

ISOFLEX USA's Commonly Used Abbreviations and Acronyms*

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
ALARA	As Low As Is Reasonably Achievable
AMU	Atomic Mass Unit
ANSI	American National Standards Institute
BLS	Basic Life Support
CAM	Continuous Air Monitor
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CEN	European Committee for Standardization
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CLP	Classification, Labelling and Packaging (European Union)
CPR	Controlled Products Regulations (Canada)
CWA	Clean Water Act (USA)
DAC	Derived Air Concentration (USA)
DOE	United States Department of Energy (USA)

DOT	United States Department of Transportation (USA)
DSL	Domestic Substances List (Canada)
EC50	Half Maximal Effective Concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
EHS	Environmentally Hazardous Substance
ELINCS	European List of Notified Chemical Substances
EMS	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency (USA)
EPCRA	Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986
GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System (USA)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Containers
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life or Health
IMDG	International Maritime Code for Dangerous Goods
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
LDLO	Lethal Dose Low
LOEC	Lowest-Observed-Effective Concentration
MARPOL	International Convention for the Prevention of Pollution from Ships
MSHA	Mine Safety and Health Administration (USA)
NCRP	National Council on Radiation Protection & Measurements (USA)
NDSL	Non-Domestic Substances List (Canada)
NFPA	National Fire Protection Association (USA)
NIOSH	National Institute for Occupational Safety and Health (USA)
NOEC	No Observed Effect Concentration
N.O.S.	Not Otherwise Specified
NRC	Nuclear Regulatory Commission (USA)
NTP	National Toxicology Program (USA)
OSHA	Occupational Safety and Health Administration (USA)
PBT	Persistent Bioaccumulative and Toxic Chemical
PEL	Permissible Exposure Limit
PIH	Poisonous by Inhalation Hazard
RCRA	Resource Conservation and Recovery Act (USA)
RCT	Radiation Control Technician
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Europe)
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act (USA)
TDG	Transportation of Dangerous Goods (Canada)
TIH	Toxic by Inhalation Hazard
TLV	Threshold Limit Value
TPQ	Threshold Planning Quantity
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
UN	United Nations (Number)
VOC	Volatile Organic Compound
vPvB	Very Persistent Very Bioaccumulative Chemical
WGK	Wassergefährdungsklassen (Germany: Water Hazard Classes)
WHMIS	Workplace Hazardous Materials Information System

*One or more of the above-listed items may not appear in this document.

General Disclaimer

For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between ISOFLEX USA (or any of its affiliates and subsidiaries) and the purchaser.



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