

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	<b>Magnesium Foil</b>
Chemical Formula	Mg
Molecular Weight	24.31 g/mol
CAS No.	7439-95-4
Supplier Address*	ISO FLEX USA PO Box 29475 San Francisco CA 94129 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 <a href="mailto:iusa@isoflex.com">iusa@isoflex.com</a>
Website	<a href="http://www.isoflex.com">www.isoflex.com</a>
Preparation Information	ISO FLEX USA Product Safety +1 415-440-4433

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable solids (Category 1), H228

Self-heating chemicals (Category 1), H251

Chemicals which, in contact with water, emit flammable gases (Category 2), H261

### GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H228	Flammable solid
H251	Self-heating: may catch fire
H261	In contact with water releases flammable gases
Precautionary statement(s)	
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P223	Do not allow contact with water.
P231 + P232	Handle under inert gas. Protect from moisture.
P235 + P410	Keep cool. Protect from sunlight.

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P280	Wear protective gloves/eye protection/face protection.
P335 + P334	Brush off loose particles from skin. Immerse in cool water/wrap in bandages.
P370 + P378	In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P402 + P404	Store in a dry place. Store in a closed container.
P407	Maintain air gap between stacks/pallets.
P413	Store bulk masses greater than .? kg/.? lb at temperatures not exceeding .? °C /.? °F.
P420	Store away from other materials.
P501	Dispose of contents/container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC) or not covered by GHS:** Combustible dust

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

**Health Hazard = 0    Flammability = 1    Instability = 1**



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

**Health Hazard = 0    Flammability = 0    Physical Hazard = 0**

<b>HEALTH HAZARD</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	Magnesium
Chemical Formula:	Mg
Molecular Weight:	24.31 g/mol
CAS No.:	7439-95-4
EC No.:	231-104-6

No components need to be disclosed according to the applicable regulations.

### 4. FIRST AID MEASURES

<i>General Advice</i>	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
<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. If not breathing, give artificial respiration.

*Dermal Exposure*

In case of contact, immediately wash skin with soap and copious amounts of water. Consult a physician.

*Eye Exposure*

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.

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## 5. FIREFIGHTING MEASURES

*Suitable Extinguishing Media*

Dry powder, dry sand.

*Unsuitable Extinguishing Media*

Do NOT use water jet.

### **Firefighting**

*Protective Equipment*

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

*Specific Hazard(s)*

Magnesium oxide

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## 6. ACCIDENTAL RELEASE MEASURES

*Personal Precautions*

Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

*Environmental Precautions*

Prevent further leakage or spillage. Do not let product enter drains.

*Methods for Cleaning Up*

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Do not flush with water. Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations.

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## 7. HANDLING AND STORAGE

*Safe Handling*

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition – No smoking.

*Safe Storage*

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

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

Air and moisture sensitive. Store under inert gas.

Storage class (TRGS 510): 4.2: Pyrophoric and self-heating hazardous materials

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

*Engineering Controls*

Safety shower and eye bath. Mechanical exhaust required.

### **Personal Protective Equipment**

*Respiratory*

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).
<i>Hand</i>	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.
<i>Eye</i>	Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
<i>General Hygiene Measures</i>	Wash thoroughly after handling.
<i>Environmental Exposure</i>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Physical State	Solid
Form	Foil
Color	Silver

### Safety Data

Molecular Weight:	24.31 g/mol	pH:	N/A
BP/BP Range:	1090 °C	MP/MP Range:	648 °C
Freezing Point:	648 °C	Vapor Pressure:	1 hPa at 621 °C
Vapor Density:	N/A	Saturated Vapor Concentration:	N/A
Relative Density:	1.74 g/cm <sup>3</sup>	Bulk Density:	N/A
Odor Threshold:	Odorless	Volatile%:	N/A
Flash Point:	N/A	Explosion Limits:	N/A
Flammability:	N/A	Autoignition Temperature:	Self-heating
Solubility in Water:	Insoluble		

## 10. STABILITY AND REACTIVITY

<i>Stable</i>	Stable under recommended storage conditions.
<i>Conditions to Avoid</i>	Exposure to moisture.
<i>Materials to Avoid</i>	Acids, strong oxidizing agents, acid chlorides, halogens.
<i>Hazardous Decomposition Products</i>	Formed under fire conditions: Magnesium oxide.

## 11. TOXICOLOGICAL INFORMATION

### Routes of Exposure

<i>Skin Corrosion/Irritation</i>	No data available
<i>Serious Eye Damage</i>	No data available
<i>Respiratory Sensitization</i>	No data available

### 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**

<i>IARC</i>	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: OM2100000  Burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, chills, fever, fatigue, muscle pain, joint pain, rash, anorexia.  Liver – Irregularities – Based on Human Evidence  To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

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## **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

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## **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 but exert extra care in igniting as this material is highly flammable.
<i>Contaminated Packaging</i>	Dispose of as unused product.

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

<i>Proper Shipping Name</i>	Magnesium
<i>UN No.</i>	1869
<i>Class</i>	4.1
<i>Packing Group</i>	III
<i>Poison Inhalation Hazard:</i>	No

**IATA**

<i>Proper Shipping Name</i>	Magnesium
<i>UN No.</i>	1869
<i>Class</i>	4.1
<i>Packing Group</i>	III

**IMDG**

<i>Proper Shipping Name</i>	MAGNESIUM
<i>UN No.</i>	1869
<i>Class</i>	4.1
<i>Packing Group</i>	III

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**15. REGULATORY INFORMATION**

<b>SARA 302 Components</b>	This material does not contain any component with a section 302 EHS TPQ.
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<b>SARA 313 Components</b>	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.
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<b>SARA 311/312 Hazards</b>	Fire Hazard, Reactivity Hazard, Chronic Health Hazard
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<b>Massachusetts Right to Know Components</b>	No components are subject to the Massachusetts Right to Know Act.
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<b>Pennsylvania Right to Know Components</b>	<i>Magnesium (non-pyrophoric) / CAS No. 7439-95-4 / Revision Date 1993-02-16</i>
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<b>California Prop. 65 Components</b>	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
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**16. OTHER INFORMATION**

<i>Prepared By</i>	ISOFLEX USA PO Box 29475 San Francisco CA 94129 United States
<i>Issuing Date</i>	January 2, 2020
<i>Revision Date</i>	August 1, 2021
<i>Revision Number</i>	2
<i>Revision Note</i>	Required review and update



## 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.

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