

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Section 1 - Identification

Product Identifier: Magnesium Scrap

Chemical Family: Mixture

Recommended Use: Scrap metal usage.

Restriction on Use: None known.

Manufacturer Information

The David J. Joseph Company
300 Pike Street
Cincinnati, OH 45202

Non-Emergency Contact: Safety Department
Non-Emergency Phone: 513-419-6200
Emergency Contact: DJJ
Emergency Phone: 513-562-1699

Section 2 - Hazard(s) Identification

Classification in accordance with 29 CFR 1910.1200.

Product is supplied as scrap metal consisting of magnesium. This alloy is a non-combustible, non-reactive solid material. Solid material, as supplied, is not hazardous. Processing of this material may produce hazardous vapors, fumes, mists and dusts which are considered hazardous under 29 CFR 1910.1200 (Hazard Communication). Dust, particles or powder generated during processing would have the following classification: Acute Toxicity (Oral), Category 3
Skin Corrosion / Irritation, Category 2
Eye Damage / Irritation, Category 2A
Sensitization - Skin, Category 1
Carcinogenicity, Category 1A
Toxic to Reproduction, Category 1B
Specific Target Organ Toxicity - Single Exposure, Category 1 (lungs, systemic toxicity, respiratory system)
Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory tract)
Specific Target Organ Toxicity - Repeated Exposure, Category 1 (lungs, nervous system)

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

DANGER

Hazard Statement(s)

Toxic if swallowed
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause cancer
May damage fertility or the unborn child

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Causes damage to lungs, systemic toxicity, and respiratory system.

May cause respiratory irritation

Causes damage to lungs, nervous system, and respiratory system through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, mist, fumes or vapors. Use only outdoors or in a well-ventilated area. Do not eat, drink, or smoke when using this product. Wear appropriate protective gloves/clothing and eye/face protection if contact is possible. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Storage

Store in a secure area.

Disposal

Dispose of material in accordance with all local, regional, national and international regulations.

Hazard(s) Not Otherwise Classified

Dust may present an explosion hazard if allowed to accumulate in an industrial or manufacturing environment. Coatings and oils applied to the product may enhance flammability.

* * *Section 3 - Composition / Information on Ingredients* * *

CAS	Component	Percent
7439-95-4	Magnesium	>88
7429-90-5	Aluminum	<10
1314-13-2	Zinc	<6
7440-29-1	Thorium	<4
7440-22-4	Silver	<3
7439-96-5	Manganese	<2
7440-21-3	Silicon	<1

Component Information/Information on Non-Hazardous Components

Processing of this material may produce hazardous vapors, fumes, mists and dusts which are considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

This data sheet is prepared as a guideline for typical uses of scrap materials. The user should be aware that the composition of the scrap can vary based upon the raw materials, processes used, and protective coatings that may have been applied to the original materials. The list of ingredients above are typical ingredients thought to be present in the scrap material. This list includes contaminants that may or may not be present. The percentages given vary from shipment to shipment and may not be entirely accurate for a given shipment.

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Protective coatings, including paints, lubricants, corrosion inhibitors, etc., may have been applied to the material before it came under the control of the recycler. These coatings may contain hazardous materials. Typical hazardous materials contained in these coatings include: lead, zinc, chromium, and cadmium. Some organic materials may also be present. The supplier (recycler) may have no specific knowledge of the particular contaminant. However, it is anticipated that the hazardous materials present in the coatings would generally represent less than 0.1% of the total material present. The health hazards presented by these contaminants would produce their greatest potential for exposure during processes such as melting, cutting, welding. These processes could generate metal fumes that might produce the health hazards identified in section 2 of this MSDS.

It is suggested that the user protect employees by utilizing engineering controls that reduce exposures to acceptable concentrations. Where engineering controls are not feasible, appropriate personal protective equipment should be utilized.

*****Section 4 - First Aid Measures*****

Description of Necessary Measures

Inhalation

If adverse effects occur during processing, remove to uncontaminated area. Get immediate medical attention.

Skin Contact

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Cuts or abrasions should be treated promptly with thorough cleansing of the affected area.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. In case of mechanical abrasions and cuts, seek medical attention immediately.

Ingestion

Due to the physical nature of this material, ingestion is unlikely to occur. If ingestion of a large amount does occur, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most Important Symptoms/Effects

Acute

Processing by-products: Toxic if swallowed. Symptoms/effects may include skin irritation, eye irritation, allergic reactions, lung damage, systemic toxicity damage, respiratory system damage, and respiratory tract irritation.

Delayed

Processing by-products: Symptoms/effects may include allergic reactions, cancer, reproductive effects, lung damage, nervous system damage, and respiratory system damage.

Indication of immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively.

*****Section 5 - Fire Fighting Measures*****

Extinguishing Media

Media to use includes regular dry chemical and dry sand.

Unsuitable Extinguishing Media

Molten metal may react violently with water.

Specific Hazards Arising from the Chemical

Coatings and oils applied to the product may enhance flammability. Dust or fine particles may present a flammability hazard if allowed to accumulate in an industrial or manufacturing environment. Chips and fine particles that are slightly wetted with water may generate sufficient heat to ignite spontaneously in air, burning violently with the release of hydrogen. The more massive a piece of magnesium, the more difficult it is to ignite, but once ignited, magnesium burns intensely and is difficult to extinguish.

Hazardous Combustion Products

This product may release metal oxide fumes by thermal decomposition.

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Fire fighting measures

Fight fire with normal precautions from a reasonable distance.

Special Protective Equipment and Precautions for Firefighters

Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.

Section 6 - Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

If dusts or particulates are generated, eliminate sources of ignition. Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Containment of this material should not be necessary. If dusts or particulates are generated, eliminate sources of ignition. Small pieces of this product may be collected with a broom and shovel. Collect spilled material in appropriate container for reuse or disposal.

Section 7 - Handling and Storage

Precautions for Safe Handling

Observe good hygiene and safety practices when handling this product. Processing of this material may produce hazardous vapors, fumes, mists, and dusts. Avoid inhaling dusts or fumes produced during product processing. Handle with adequate ventilation during processing. Wash thoroughly after handling.

Condition for Safe storage, Including any incompatibilities

Store in a secure area.

Incompatibility

Magnesium may react with aluminum and potassium perchlorate, ammonium nitrate, barium nitrate, barium dioxide, zinc, beryllium oxide, boron phosphodiiodide, gold cyanide, hydrogen, calcium carbonate, hydrogen iodide, hydrogen peroxide, iodide, lead cyanide, mercuric oxide, mercury cyanide, methyl chloride, molybdenum trioxide, nickel cyanide, nitric acid, nitrogen dioxide, oxygen (liquid), performic acid, phosphates, potassium chlorate, chlorine, bromine, iodine, oxidizing agents and acids.

Section 8 - Exposure Controls / Personal Protection

Exposure Limits

Follow all applicable exposure limits. Keep formation of dusts, particulates and fumes to a minimum. If a regular daily exposure to the thorium contained in this product may occur, consult appropriate OSHA and ACGIH guidelines for applicable exposure limits.

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Component Exposure Limits

Aluminum (7429-90-5)

ACGIH: 1 mg/m³ TWA (respirable fraction)

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

NIOSH: 10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable dust)

Alberta: 10 mg/m³ TWA (dust)

British Columbia: 1.0 mg/m³ TWA (respirable)

Manitoba: 1 mg/m³ TWA (respirable fraction)

New Brunswick: 10 mg/m³ TWA (metal dust)

NW Territories: 10 mg/m³ TWA

20 mg/m³ STEL

Nova Scotia: 1 mg/m³ TWA (respirable fraction)

Nunavut: 10 mg/m³ TWA

20 mg/m³ STEL

Ontario: 1 mg/m³ TWA (respirable)

Quebec: 10 mg/m³ TWAEV

Saskatchewan: 10 mg/m³ TWA (dust)

20 mg/m³ STEL (dust)

Zinc (1314-13-2)

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

ACGIH: 2 mg/m³ TWA (respirable fraction)
10 mg/m³ STEL (respirable fraction)

OSHA: 5 mg/m³ TWA (fume); 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

NIOSH: 5 mg/m³ TWA (dust and fume)
10 mg/m³ STEL (fume)
15 mg/m³ Ceiling (dust)

Alberta: 2 mg/m³ TWA (respirable)
10 mg/m³ STEL (respirable)

British Columbia: 2 mg/m³ TWA (respirable)
10 mg/m³ STEL (respirable)

Manitoba: 2 mg/m³ TWA (respirable fraction)
10 mg/m³ STEL (respirable fraction)

New Brunswick: 10 mg/m³ TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/m³ TWA (fume)
10 mg/m³ STEL (fume)

NW Territories: 5 mg/m³ TWA (fume); 5 mg/m³ TWA (dust, respirable mass); 10 mg/m³ TWA (total mass, dust)
10 mg/m³ STEL (fume)

Nova Scotia: 2 mg/m³ TWA (respirable fraction)
10 mg/m³ STEL (respirable fraction)

Nunavut: 5 mg/m³ TWA (fume); 5 mg/m³ TWA (dust, respirable mass); 10 mg/m³ TWA (total mass, dust)
10 mg/m³ STEL (fume)

Ontario: 2 mg/m³ TWA (respirable)
10 mg/m³ STEL (respirable)

Quebec: 10 mg/m³ TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m³ TWAEV (fume)
10 mg/m³ STEV (fume)

Saskatchewan: 2 mg/m³ TWA (dust and fume, respirable fraction)
10 mg/m³ STEL (dust and fume, respirable fraction)

Yukon: 5 mg/m³ TWA (fume); 30 mppcf TWA (dust); 10 mg/m³ TWA (dust)
10 mg/m³ STEL (fume)

Silver (7440-22-4)

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

ACGIH:	0.1 mg/m ³ TWA (dust and fume)
OSHA:	0.01 mg/m ³ TWA
NIOSH:	0.01 mg/m ³ TWA (dust)
Alberta:	0.1 mg/m ³ TWA
British Columbia:	0.01 mg/m ³ TWA 0.03 mg/m ³ STEL
Manitoba:	0.1 mg/m ³ TWA (dust and fume)
New Brunswick:	0.1 mg/m ³ TWA
NW Territories:	0.1 mg/m ³ TWA 0.3 mg/m ³ STEL
Nova Scotia:	0.1 mg/m ³ TWA (dust and fume)
Nunavut:	0.1 mg/m ³ TWA 0.3 mg/m ³ STEL
Ontario:	0.1 mg/m ³ TWA (dust and fume)
Quebec:	0.1 mg/m ³ TWAEV
Saskatchewan:	0.1 mg/m ³ TWA 0.3 mg/m ³ STEL
Yukon:	0.01 mg/m ³ TWA 0.03 mg/m ³ STEL
Manganese (7439-96-5)	
ACGIH:	0.02 mg/m ³ TWA (respirable fraction); 0.1 mg/m ³ TWA (inhalable fraction)
OSHA:	5 mg/m ³ Ceiling (fume)
NIOSH:	1 mg/m ³ TWA (fume) 3 mg/m ³ STEL
Alberta:	0.2 mg/m ³ TWA
British Columbia:	Adverse reproductive effect 0.2 mg/m ³ TWA
Manitoba:	0.02 mg/m ³ TWA (respirable fraction); 0.1 mg/m ³ TWA (inhalable fraction)
New Brunswick:	0.2 mg/m ³ TWA
NW Territories:	1 mg/m ³ TWA (fume) 3 mg/m ³ STEL (fume) 5 mg/m ³ Ceiling
Nova Scotia:	0.02 mg/m ³ TWA (respirable fraction); 0.1 mg/m ³ TWA (inhalable fraction)
Nunavut:	1 mg/m ³ TWA (fume) 3 mg/m ³ STEL (fume) 5 mg/m ³ Ceiling
Ontario:	0.2 mg/m ³ TWA
Quebec:	0.2 mg/m ³ TWAEV (total dust and fume)
Saskatchewan:	0.2 mg/m ³ TWA 0.6 mg/m ³ STEL
Yukon:	5 mg/m ³ Ceiling
Silicon (7440-21-3)	

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

OSHA:	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
British Columbia:	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)
New Brunswick:	10 mg/m3 TWA
NW Territories:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Nunavut:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Ontario:	10 mg/m3 TWA (total dust)
Quebec:	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust)
Saskatchewan:	10 mg/m3 TWA 20 mg/m3 STEL
Yukon:	30 mppcf TWA; 10 mg/m3 TWA 20 mg/m3 STEL

Appropriate Engineering Controls

For outdoor applications, special ventilation is not required under normal conditions of use. Under normal conditions of use, no special ventilation equipment is needed. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.

Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection

Eye protection not required under normal conditions. Wear appropriate eye protection if eye contact is possible.

Skin Protection

Wear gloves and other clothing as required to avoid contact.

Respiratory Protection

Consult with a health and safety professional for specific respirators appropriate for your use. When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH approved respiratory protection must be provided. Where concentrations exceed exposure limits or airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate for the material and its components.

General Information

Use good industrial hygiene practices in handling this material. Eye wash fountain and emergency showers are recommended.

* * *Section 9 - Physical and Chemical Properties* * *

Appearance:	Depends upon scrap composition, most often appears as a hard silver colored metal.	Odor:	Not available
Physical State:	Solid	pH:	Not applicable
Melting /Freezing Point:	1200 °F (650 °C)	Boiling Point:	2000 °F (1100 °C)
Flash Point:	Not applicable	Evaporation Rate:	Not applicable
OSHA Flammability Class:	Non-flammable	UFL:	Not available
LFL:	Not available	Vapor Pressure:	Not applicable
Vapor Density:	Not applicable	Specific Gravity:	Not applicable
Bulk Density:	Not available	Solubility (H2O):	Insoluble
Auto Ignition:	Not applicable	Viscosity:	Not available

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Section 10 - Chemical Stability & Reactivity Information

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous reaction

Will not occur.

Conditions to Avoid

Molten metal may react violently with water. Fine particles, dust or fumes may be flammable or explosive. Avoid water and acids when handling particles which may react to release hydrogen.

Incompatible Materials

Magnesium may react with aluminum and potassium perchlorate, ammonium nitrate, barium nitrate, barium dioxide, zinc, beryllium oxide, boron phosphodiiodide, gold cyanide, hydrogen, calcium carbonate, hydrogen iodide, hydrogen peroxide, iodide, lead cyanide, mercuric oxide, mercury cyanide, methyl chloride, molybdenum trioxide, nickel cyanide, nitric acid, nitrogen dioxide, oxygen (liquid), performic acid, phosphates, potassium chlorate, chlorine, bromine, iodine, oxidizing agents and acids.

Hazardous Decomposition Products

Decomposition of this product may yield metallic oxides.

Section 11 - Toxicological Information

Acute Dose Effects

No information available for the product. Operations which supply sufficient energy to the product (i.e. welding, high speed grinding or melting) can release dust or fumes which may make components of the product biologically available. Exposure to dusts or fumes from some metals including zinc, magnesium and manganese can produce a condition known as metal fume fever, a flu-like illness generally lasting 24 hours or less including symptoms of nausea, vomiting, chest tightness, muscle aches and weakness. Early signs of manganese poisoning are sluggishness, loss of appetite, sleepiness, weakness in the legs, uncontrollable laughter, hallucinations, delusions, spastic or slow gait, speech impairment, aggressiveness, tremor, mask-like faces, and clumsy movements. Overexposure to manganese may result in CNS effects, anemia and lung damage. Thorium is a naturally occurring radioactive material.

Component Analysis - LD50/LC50

Magnesium (7439-95-4)

Oral LD50 Rat 230 mg/kg

Zinc (1314-13-2)

Oral LD50 Rat >5000 mg/kg

Silver (7440-22-4)

Oral LD50 Rat >2000 mg/kg

Information on Likely Routes of Exposure

Processing by-products may cause the following.

Inhalation

May cause cancer. Overexposure to processing fumes may cause metal fume fever which is an influenza like illness. Symptoms include headache, metallic taste in the mouth, cough, thirst, throat irritation, shortness of breath, fever, sweating and pain in the limbs. Severe acute overexposure or chronic overexposure to dusts or processing fumes may produce more serious toxicities including: siderosis, lung damage, weakness, anorexia, impairment of sleep and vision, personality changes, blood formation effects, nervous and circulatory system damage, kidney damage, and may pose a reproductive hazard.

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Ingestion

Ingestion is not a likely route of exposure. Toxic if swallowed. May cause gastrointestinal disturbances, abdominal pain, fever, vomiting, and diarrhea. Ingestion of large amounts of product may produce may irritate the respiratory system. Ingestion of large amounts of product may produce more serious toxicities including: shock, metabolic acidosis, decreased white blood cell count, neurological damage, cardiovascular shock, anemia, liver damage, renal failure, lethargy and coma..

Skin

Causes skin irritation. May cause allergic skin reactions. This product may produce skin abrasions, lesions, or cuts.

Eye

Causes serious eye irritation. Dust or powder may irritate eye tissue. Rubbing may cause abrasion of cornea.

Immediate Effects

Processing by-products: Toxic if swallowed. Symptoms/effects may include skin irritation, eye irritation, allergic reactions, lung damage, systemic toxicity damage, respiratory system damage, and respiratory tract irritation.

Delayed Effects

Processing by-products: Symptoms/effects may include allergic reactions, cancer, reproductive effects, lung damage, nervous system damage, and respiratory system damage.

Medical conditions Aggravated by Exposures

No data available.

Irritation/Corrosivity Data

Causes skin irritation, eye irritation, and respiratory tract irritation.

Respiratory Sensitizer

No information available for the product.

Dermal Sensitization

May cause an allergic skin reaction

Carcinogenicity

Studies on thorium workers have shown that chronic exposure to thorium may cause many different types of cancer including lung, pancreatic, and bone cancer.

Component Carcinogenicity

Aluminum (7429-90-5)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Thorium (7440-29-1)

OSHA: Present (Select Carcinogen)

IARC: Monograph 100D [2012]; Monograph 78 [2001] (administered intravenously as a colloidal dispersion of thorium-232 dioxide) (Group 1 (Carcinogenic to humans))

Manganese (7439-96-5)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Mutagenicity

No information available for the product. Manganese has caused sister chromatid exchanges in human and hamster cells.

Reproductive Toxicity

Available data characterizes components of this product as reproductive hazards.

Specific Target Organ Toxicity - Single Exposure

lungs systemic toxicity respiratory system

Specific Target Organ Toxicity - Repeated Exposure

lungs nervous system respiratory system

Aspiration Hazard

No data available.

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Other Toxicological Information

Under normal conditions of handling, the likelihood of inhaling or ingesting amounts necessary for these effects to occur is very small.

Section 12 - Ecological Information

Ecotoxicity

Processing by-products: May be harmful to aquatic life.

Component Analysis - Ecotoxicity - Aquatic Toxicity

Silver (7440-22-4)

Duration/Test/Species

96 Hr LC50 Pimephales promelas
96 Hr LC50 Oncorhynchus mykiss
96 Hr LC50 Lepomis macrochirus

Concentration/Conditions/Notes

0.00155 - 0.00293 mg/L [static]
0.0062 mg/L [flow-through]
0.064 mg/L [static]

48 Hr EC50 Daphnia magna: 0.00024 mg/L [Static]

Persistence & Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility

No information available for the product.

Section 13 - Disposal Considerations

Disposal Methods

Byproducts and residues from this product may be reprocessed or recycled. Recycle if possible. Upon disposal, collected dusts and other similar wastes could contain a constituent identified as a hazardous waste. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

US EPA Waste Number & Descriptions

Component Waste Numbers

Silver (7440-22-4)

RCRA: 5.0 mg/L regulatory level

Disposal of Contaminated Packaging

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - Transportation Information

US DOT Information

Shipping Name: Certain forms of this material (i.e. powders, borings, shavings, turnings, cuttings, dross, etc.) may be subject to U.S. DOT hazardous material shipping requirements. If products are shipped in quantities which exceed the reportable quantity (RQ) for individual components, they may also meet the requirements as DOT hazardous materials.

UN/NA #: Not available. **Hazard Class:** Not available. **Packing Group:** Not available.

Required Label(s): Not available.

Additional Info.: If radioactivity is detected from the product, consult your state office of radiation protection and safety for applicable transportation regulations.

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

DOT Reportable Quantities

Silver (7440-22-4)

1000 lbs RQ (The RQ for these hazardous substances is limited to those pieces of the metal having a diameter smaller than 100 µm (0.004 inches).); 454 kg RQ (The RQ for these hazardous substances is limited to those pieces of the metal having a diameter smaller than 100 µm (0.004 inches).)

TDG Information

Not regulated as a hazardous material.

* * *Section 15 - Regulatory Information* * *

U.S. Federal Regulations

Processing of this material may produce hazardous vapors, fumes, mists and dusts which are considered hazardous under 29 CFR 1910.1200 (Hazard Communication). The following component analysis applies only to those facilities that are required to report under applicable regulations.

Thorium (7440-29-1)-CERCLA/SARA-Radionuclides and Their Reportable Quantities: final RQ=0.001 curies (3.7×10^7 Bq) (notification requirements for releases of mixtures or solutions can be found in 40 CFR 302.6(b))

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Aluminum (7429-90-5)

SARA 313: 1.0 % de minimis concentration (dust or fume only)

Silver (7440-22-4)

SARA 313: 1.0 % de minimis concentration

CERCLA: 1000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100 \mu\text{m}$); 454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is $>100 \mu\text{m}$)

Manganese (7439-96-5)

SARA 313: 1.0 % de minimis concentration

SARA 311/312 Hazardous Categories (40 CFR 370 Subparts B and C)

Acute Health Yes (dust/fumes) **Chronic Health** Yes (dust/fumes) **Fire** No **Pressure** No **Reactive** No

U.S. State Regulations

Other state regulations may apply. Check individual state requirements.

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Magnesium	7439-95-4	Yes	No	Yes	No	Yes	Yes
Aluminum	7429-90-5	Yes	No	Yes	Yes	Yes	Yes
Zinc	1314-13-2	Yes	No	Yes	Yes	Yes	Yes
Thorium	7440-29-1	No	No	No	No	Yes	No
Silver	7440-22-4	Yes	No	Yes	Yes	Yes	Yes
Manganese	7439-96-5	Yes	No	Yes	Yes	Yes	Yes
Silicon	7440-21-3	No	No	Yes	Yes	Yes	Yes

No component(s) regulated under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

Canada Regulation

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Canadian WHMIS Information

WHMIS CLASSIFICATION: D1B, D2A, D2B.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Aluminum (7429-90-5)

1 %

Zinc (1314-13-2)

1 %

Silver (7440-22-4)

1 %

Manganese (7439-96-5)

1 %

Additional Regulatory Information

All components are on the U.S. EPA TSCA Inventory List.

Component Analysis - Inventory

Component	CAS #	TSCA	CAN
Magnesium	7439-95-4	Yes	DSL
Aluminum	7429-90-5	Yes	DSL
	1314-13-2	Yes	DSL
Thorium	7440-29-1	Yes	DSL
Silver	7440-22-4	Yes	DSL
Manganese	7439-96-5	Yes	DSL
Silicon	7440-21-3	Yes	DSL

* * *Section 16 - Other Information* * *

Summary of Changes

Updated: 5/12/2015

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; TLV = Threshold Limit Value; NFPA = National Fire Protection Association; HMIS = High Efficiency Particulate Air; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act.

Other Information

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

MSDS History:

Safety Data Sheet

Product Identifier: Magnesium Scrap

SDS ID : NFE-0102

New MSDS: 7/8/1998

Revision 2/Regulatory Update: 7/19/2002

Revision 3/Regulatory Update: 10/6/2005

Revision 4/Regulatory Update: 8/7/2008

Revision 5/Regulatory Update: 1/26/2010

Revision 6 / Regulatory Update: 11/7/2011

End of Sheet NFE-0102