**KM00882 MAGNESIUM TURNINGS**
**SDS No.: MM0022 9999.** **SAFETY DATA SHEET** **FLAMMABLE STORAGE CODE RED**

## Section 1 Chemical Product and Company Information



Nasco
901 Janesville Ave.
P.O. Box 901
Fort Atkinson, WI 53538-0901

**CHEMTREC 24 Hour Emergency**
**Phone Number (800) 424-9300**
For laboratory use only.
Not for drug, food or household use.

| | |
|---|---|
| **Product** | **MAGNESIUM METAL, TURNINGS** |
| Synonyms | Magnesium |

## Section 2 Hazards Identification

**Signal word:** DANGER
**Pictograms:** GHS02
**Target organs:** None known

**GHS Classification:**
Flammable solid (Category 1)
Self heating substance (Category 2)
Water reactivity (Category 2)

**GHS Label Information: Hazard statement:**
H228: Flammable solid.
H252: Self-heating in large quantities; may catch fire.
H261: In contact with water releases flammable gas.

**Precautionary statement:**
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/protective clothing/eye protection/face protection.
P335+P334: Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P370+P378: In case of fire: Use graphite powder, soda ash, powdered sodium chloride, or an appropriate metal-fire-extinguishing dry powder to extinguish.
P402+P404: Store in a dry place. Store in a closed container.
P420: Store away from other materials.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

## Section 3 Composition / Information on Ingredients

| Chemical Name | CAS # | % | EINECS |
|---|---|---|---|
| Magnesium | 7439-95-4 | 99.8% | 231-104-6 |

## Section 4 First Aid Measures

**INGESTION:** CAUSES BURNING SENSATION IN THE MOUTH. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE BURNS AND CORNEAL ABRASIONS. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** MAY CAUSE IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Use only graphite powder, soda ash, powdered sodium chloride, or an appropriate metal-fire-extinguishing dry powder. DO NOT use water, carbon dioxide, or foam!
**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.
**Specific Hazards:** When heated in air to a temperature near its melting point, magnesium may ignite and burn. Dangerous in the form of dust or flakes and when exposed to flame or by violent chemical reaction with oxidizing agents. Magnesium may react with moisture or acids to evolve hydrogen gas, which is a highly dangerous fire or explosion hazard.

## Section 6 Accidental Release Measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Remove all sources of ignition. Using non-sparking tools, sweep up and place in a suitable container for proper disposal. Wash spill area with soap and water.

## KM00882 MAGNESIUM TURNINGS

### Section 7 Handling & Storage



**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources. Keep away from water and moisture.

### Section 8 Exposure Controls / Personal Protection

| Exposure Limits: | Chemical Name | ACGIH (TLV) | OSHA (PEL) | NIOSH (REL) |
|---|---|---|---|---|
| | Magnesium | Not established | Not established | Not established |

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

### Section 9 Physical & Chemical Properties

**Appearance:** Solid. Silvery gray, metal turnings
**Odor:** No odor.
**Odor threshold:** Data not available.
**pH:** Data not available.
**Melting / Freezing point:** 651°C (1203.8°F)
**Boiling point:** 1110°C (2030°F)
**Flash point:** 636°C (1175°F)
**Evaporation rate ( = 1):** Data not available
**Flammability (solid/gas):** Data not available.
**Explosion limits: Lower / Upper:** Data not available
**Vapor pressure (mm Hg):** 1 mm @ 621°C
**Vapor density (Air = 1):** Data not available
**Relative density (Specific gravity):** 1.74 @ 20°C
**Solubility(ies):** Negligible in water.
**Partition coefficient:** Data not available
**Auto-ignition temperature:** 510°C (950°F)
**Decomposition temperature:** Data not available.
**Viscosity:** Data not available.
**Molecular formula:** Mg
**Molecular weight:** 24.31

### Section 10 Stability & Reactivity

**Chemical stability:** Stable
**Hazardous polymerization:** Will not occur.
**Conditions to avoid:** Excessive temperatures, heat, sparks, open flame and other sources of ignition.
**Incompatible materials:** Magnesium will react with water and acids to release hydrogen. Also hazardous with chlorine, bromine, iodine and oxidizing agents.
**Hazardous decomposition products:** Hydrogen.

### Section 11 Toxicological Information

**Acute toxicity:** Data not available
**Skin corrosion/irritation:** Data not available
**Serious eye damage/irritation:** Data not available
**Respiratory or skin sensitization:** Data not available
**Germ cell mutagenicity:** Data not available
**Carcinogenity:** Data not available
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.
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.
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:** Data not available
**STOT-single exposure:** Data not available
**STOT-repeated exposure:** Data not available
**Aspiration hazard:** Data not available
**Potential health effects:**
Inhalation: Inhalation may cause cough, sore throat, shortness of breath.
Ingestion: Ingestion causes burning sensation in the mouth and may cause abdominal pain and diarrhea.
Skin: Particles imbedded in the skin may cause eruptions. Molten magnesium may cause serious skin burns.
Eyes: Contact with eyes may cause irritation and corneal scratches. Avoid direct viewing of magnesium fires as eye injury may result, use fire glasses.
**Signs and symptoms of exposure:** Exposure to magnesium oxide fume subsequent to burning can result in metal fume fever. The temporary symptoms can include fever, chills, nausea, vomiting and muscular pain. Onset of symptoms occurs 4-12 hours after exposure. Exercise appropriate procedures to minimize potential hazards.
**Additional information: RTECS #:** OM2100000

### Section 12 Ecological Information

**Toxicity to fish:** No data available
**Toxicity to daphnia and other aquatic invertebrates:** No data available
**Toxicity to algae:** 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:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

### Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

### Section 14 Transport Information (US DOT / CANADA TDG)

**UN/NA number:** UN1869 **Shipping name:** Magnesium
**Hazard class:** 4.1 **Packing group:** III **Reportable Quantity:** No **Marine pollutant:** No
**Exceptions:** Limited quantity equal to or less than 5 Kg **2012 ERG Guide #** 138

### Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the inventory list.

| Component | TSCA | CERLCA (RQ) | RCRA code | DSL | NDSL | WHMIS Classification |
|---|---|---|---|---|---|---|
| Magnesium | Listed | Not listed | D001 | Listed | Not listed | B4 - B6 |

### Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

**Revision Date:** August 28, 2014 **Supercedes:** April 22, 2013