

Iron Powder SDS

SECTION 1- PRODUCT AND COMPANY IDENTIFICATION

Product Name: Iron Powder (Fe) P/N SM40001R, SM40010R, SM400240R

Material Uses: Metal parts, art, science, Paint, welding, chemical compounding

Supplier: EnvironMolds, LLC

18 Bank Street / Suite 1, Summit NJ 07901

Tel: 908-273-5401

Emergency Number: 908-273-5401

Product type: Powder

SECTION 2- HAZARDS IDENTIFICATION

Emergency overview

Color:	Gray
Physical State:	Solid [Powder]
Hazard Statements:	Not expected to produce significant adverse health effects when the recommended instructions for use are followed.
Precautions:	No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
OSHA/HCS status:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Routes of Entry:	Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Inhalation:	May cause respiratory tract irritation.
Ingestion:	No known significant effects or critical hazards.

Skin:	No known significant effects or critical hazards.
Eyes:	May cause eye irritation.

Potential Chronic Health Effects

Chronic Effects:	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Developmental Effects:	No known significant effects or critical hazards.
Fertility Effects:	No known significant effects or critical hazards.

Over-exposure Signs/Symptoms

Inhalation:	Adverse symptoms may cause respiratory tract irritation or coughing.
Ingestion:	No specific data.
Skin:	No specific data.
Eyes:	Adverse symptoms may cause irritation and/or redness.
Medical conditions aggravated by over-exposure:	Repeated exposure of the eyes to a low level of dust can produce eye irritation.

SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS

NAME	CAS Number	Percent
Iron	7439-89-6	>98%

There are no additional ingredients presented within the current knowledge of the supplier and in the concentration applicable, are classified as hazardous or the environment and hence require reporting in this section.

SECTION 4- FIRST AID MEASURES

Eye Contact:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if irritation occurs.
Skin Contact:	Wash with soap and water. Get medical attention if irritation occurs.
Inhalation:	Move person into fresh air. Get medical attention if breathing difficulty persists.
Ingestion:	Do not induce vomiting. Never give anything by mouth to mouth to an unconscious person. Get medical attention if symptoms appear.
Notes to Physician:	No specific treatment. Treat symptomatically.

SECTION 5- FIRE-FIGHTING MEASURES

Flammability of the product: No specific fire or explosion hazard.

<u>Extinguishing Media</u>	
Suitable:	Use a fog nozzle to spray water. SEE SPECIAL REMARKS ON FIRE HAZARDS.
Not Suitable:	Not known.
Hazardous thermal decomposition products:	Decomposition products may include metal oxides or oxides
Special protective equipment for the fire-fighters:	No special protection is required.
Special remarks on fire hazards:	As with any finely granulated product (i.e. flour) a risk of fire is present should the material be dispersed in air and exposure of source of ignition. Fine powders form flammable and explosive mixtures in air.

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SECTION 6- ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protection equipment.
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Environmental Precautions:	Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.
Methods for Cleaning Up:	If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in appropriate container for disposal, Avoid creating dusty conditions and prevent wind dispersal.

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SECTION 7- HANDLING AND STORAGE

Handling:	Avoid breathing dusts. Avoid prolonged contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container in ventilated area.
Storage:	Keep container closed. Keep container in ventilated area.

SECTION 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>United States</u>	
Ingredient:	Iron
Exposure Limits:	ACGIH TLV (United States), TWA: 10 mg/m ³

Consult local authorities for acceptable limits.

Recommended Monitoring Procedures:	Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Engineering Measures:	Use only with adequate ventilation.
Hygiene Measures:	Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

<u>Personal Protection</u>	
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Eyes:	Safety eyewear complying with an approved standard should be used and selected based on the task being performed and the risks involved (avoid exposure to liquid splashes, mists, gases or dusts). Safety glasses are recommended.
Skin:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Recommended: Overalls.
Respiratory:	Use a properly fitted; particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands:	Leather gloves are recommended.
Environmental Exposure Controls:	Emissions from ventilation or work in the process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid [Powder]
Color:	Grey
Melting/Freezing Point:	1535°C (2795°F)
Specific Gravity:	2.4 to 3.2 g/cm ³
Relative Density:	The only known value is 7.8 (Iron)
Solubility:	Insoluble in cold water and hot water.

SECTION 10- STABILITY AND REACTIVITY

Chemical Stability:	The product is stable.
Conditions to Avoid:	No specific data.
Materials to Avoid:	Reactive with oxidizing materials and reducing materials.
Hazardous Decomposition Products:	Under normal conditions of storage and use hazardous decomposition products should not be produced.

Possibility of Hazardous Reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous Polymerization:	Under normal conditions of storage and use, hazardous polymerization will not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Acute Toxicity:	No specific data.
Chronic Toxicity:	No specific data.

SECTION 12- ECOLOGICAL INFORMATION

Environmental Effects:	Not established.
Other Adverse Effects:	No known significant effects or critical hazards.

SECTION 13- DISPOSAL CONDITIONS

Waste Disposal: The generation of waste should be avoided or minimized whenever possible, Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14- TRANSPORT INFORMATION

Regulatory Information DOT/TDG/MXT/IMDG/IATA: Not regulated.

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SECTION 15- REGULATORY INFORMATION

United States

HCS Classification: Not Regulated

<u>U.S. Federal Regulations</u>	
United States inventory (TSCA 8b):	All components are listed or exempted.

SARA 302/304/311/312 Extremely Hazardous Substances:	No products were found.
SARA 302/304 Emergency Planning and Notification:	No products were found.
SARA 302/304/311/312 Hazardous Chemicals:	No products were found.
SARA 311/312 MSDS distribution- Chemical Inventory- Hazard Identification:	Iron: Fire Hazard
Clean Water Act (CWA) 307:	No products were found.
Clean Water Act (CWA) 311:	No products were found.
Clean Air Act (CAA) 112 Accidental Release Prevention:	No products were found.
Clean Air Act (CAA) 112 Regulated Flammable Substances:	No products were found.
Clean Air Act (CAA) 112 Regulated Toxic Substances:	No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Not listed

Clean Air Act Section 602 Class I substances: Not listed

Clean Air Act Section 602 Class II substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed

State Regulations:

Connecticut Carcinogen Reporting: None of the components are listed.

Connecticut Hazardous Material Survey: None of the components are listed.

Florida Substances: None of the components are listed.

Illinois Chemical Safety Act: None of the components are listed.

Illinois Toxic Substances Disclosures to the Employee Act: None of the components are listed.

Louisiana Reporting: None of the components are listed.

Louisiana Spill: None of the components are listed.

Massachusetts Spill: None of the components are listed.

Massachusetts Substances: None of the components are listed.

Michigan Critical Material: None of the components are listed.

Minnesota Hazardous Substance: None of the components are listed.

New Jersey Hazardous Substance: None of the components are listed.

New Jersey Spill: None of the components are listed.

New Jersey Toxic Catastrophe Prevention: None of the components are listed.

New York Acutely Hazardous Substances: None of the components are listed.

New York Toxic Chemical Release Reporting: None of the components are listed.

Pennsylvania RTK Hazardous Substances: None of the components are listed.

Rhode Island Hazardous Substances: None of the components are listed.

California Prop 65: No products were found.

WHMIS (Canada): Not controlled under WHMIS (Canada)

Canadian Lists:

CEPA Toxic Substances: None of the components are listed.

Canadian ARET: None of the components are listed.

Canadian NPRI: None of the components are listed.

Alberta Designated Substances: None of the components are listed.

Ontario Designated Substances: None of the components are listed.

Quebec Designated Substances: None of the components are listed.

Canada Inventory: All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contain all the information required by the Controlled Products Regulations.

International Regulations:

International Lists

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: Not determined.

Korea inventory: All components are listed or exempted.

New Zealand inventory of Chemicals (NZI oc): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

Chemical Weapons Convention List Schedule I Chemicals:	Not listed
Chemical Weapons Convention List Schedule II Chemicals	Not listed
Chemical Weapons Convention List Schedule III Chemicals	Not listed

SECTION 16- OTHER INFORMATION

United States

Label requirements:	Not expected to produce significant adverse health effects when the recommended instructions for use are followed.
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Hazardous Material Information System (USA)

Health	0
Flammability	1
Physical hazard	1
Special	

Caution: HMISØ ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risk. Although, HMISØ ratings are not require on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them.

Date of issue: November 2, 2016

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Please contact 908-273-5401 to discuss your specific requirements based on your applications.