

# SAFETY DATA SHEET

Date Printed: 05/31/2024

Date Revised: 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Magnesium Hexafluorosilicate Hexahydrate

**Product Code:** MG-FSIAT6-05-C.6HYD

**CAS Number:** 18972-56-0

**Relevant identified uses of the substance:** Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351  
Emergency telephone number:  
+1 800-424-9300

## SECTION 2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity Category 3

Label Elements

Signal Word

Danger

Hazard Statements

Toxic if swallowed



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

Storage

Store locked up  
Disposal  
Dispose of contents/container to an approved waste disposal plant  
Hazards not otherwise classified (HNOC)  
None identified

---

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component  
Magnesium silicofluoride hexahydrate  
Silicate(2-), hexafluoro-, magnesium (1:1)  
CAS-No  
18972-56-0  
16949-65-8  
Weight %  
>95

---

### **SECTION 4. FIRST AID MEASURES**

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.  
Eye Contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.  
Inhalation Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.  
Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately.  
Most important symptoms and effects  
None reasonably foreseeable.  
Notes to Physician Treat symptomatically

---

### **SECTION 5. FIREFIGHTING MEASURES**

Unsuitable Extinguishing Media No information available  
Flash Point Not applicable  
Method - No information available  
Autoignition Temperature No information available  
Explosion Limits  
Upper No data available  
Lower No data available  
Sensitivity to Mechanical Impact No information available  
Sensitivity to Static Discharge No information available  
Specific Hazards Arising from the Chemical  
Keep product and empty container away from heat and sources of ignition.  
Hazardous Combustion Products  
Magnesium oxides. Gaseous hydrogen fluoride (HF).  
Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health

3

Flammability

Instability

Physical hazards

N/A

---

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions** Avoid dust formation. Use personal protective equipment as required. Ensure adequate

ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

**Environmental Precautions** Should not be released into the environment.

**Methods for Containment and Clean Up**

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

---

## SECTION 7. HANDLING AND STORAGE

**Handling** Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.

**Storage** Keep in a dry, cool and well-ventilated place. Refer product specification and/or product label for specific storage temperature requirement. Keep container tightly closed. Keep under nitrogen.

---

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard

EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

---

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid  
Appearance No information available  
Odor No information available  
Odor Threshold No information available  
pH No information available  
Melting Point/Range 120 °C / 248 °F  
Boiling Point/Range No information available  
Flash Point Not applicable  
Evaporation Rate Not applicable  
Flammability (solid,gas) No information available  
Flammability or explosive limits  
Upper No data available  
Lower No data available  
Vapor Pressure No information available  
Vapor Density Not applicable  
Specific Gravity No information available  
Solubility No information available  
Partition coefficient; n-octanol/water No data available  
Autoignition Temperature No information available  
Decomposition Temperature No information available  
Viscosity Not applicable  
Molecular Formula  $F_6MgSi_6H_{12}O_6$   
Molecular Weight 274.47

---

## SECTION 10. STABILITY AND REACTIVITY

Reactive Hazard None known, based on information available  
Stability Stable under normal conditions.  
Conditions to Avoid Incompatible products.  
Incompatible Materials Strong oxidizing agents  
Hazardous Decomposition Products Magnesium oxides, Gaseous hydrogen fluoride (HF)  
Hazardous Polymerization Hazardous polymerization does not occur.  
Hazardous Reactions None under normal processing.

---

## SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity  
Product Information  
Oral LD50 Category 3. ATE = 50 - 300 mg/kg.  
Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.  
Mist LC50 Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.  
Toxicologically Synergistic  
Products  
No information available  
Delayed and immediate effects as well as chronic effects from short and long-term exposure  
Irritation No information available  
Sensitization No information available  
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.  
Mutagenic Effects No information available

Reproductive Effects No information available.  
Developmental Effects No information available.  
Teratogenicity No information available.  
STOT - single exposure None known  
STOT - repeated exposure None known  
Aspiration hazard No information available  
Symptoms / effects, both acute and delayed  
No information available  
Endocrine Disruptor Information No information available  
Other Adverse Effects The toxicological properties have not been fully investigated.

---

## **SECTION 12. ECOLOGICAL INFORMATION**

Ecotoxicity  
Do not empty into drains. .  
Persistence and Degradability No information available  
Bioaccumulation/ Accumulation No information available.  
Mobility No information available.

---

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

---

## **SECTION 14. TRANSPORT INFORMATION**

DOT  
UN-No UN2853  
Proper Shipping Name MAGNESIUM FLUOROSILICATE  
Hazard Class 6.1  
Packing Group III  
TDG  
UN-No UN2853  
Proper Shipping Name MAGNESIUM FLUOROSILICATE  
Hazard Class 6.1  
Packing Group III  
IATA  
UN-No UN2853  
Proper Shipping Name MAGNESIUM FLUOROSILICATE  
Hazard Class 6.1  
Packing Group III  
IMDG/IMO  
UN-No UN2853  
Proper Shipping Name MAGNESIUM FLUOROSILICATE  
Hazard Class 6.1  
Packing Group III

---

## SECTION 15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland

Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

---

## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.