

<a href="#">Magnesium Fluoride</a>	<a href="#">Pricing &gt;</a>
<a href="#">Magnesium Fluoride Foil</a>	<a href="#">Pricing &gt;</a>
<a href="#">Magnesium Fluoride Granules</a>	<a href="#">Pricing &gt;</a>
<a href="#">Magnesium Fluoride Pieces</a>	<a href="#">Pricing &gt;</a>
<a href="#">Magnesium Fluoride Sputtering Target</a>	<a href="#">Pricing &gt;</a>
<a href="#">Magnesium Fluoride Window</a>	<a href="#">Pricing &gt;</a>
<b>Linear Formula</b>	MgF <sub>2</sub>
<b>Pubchem CID</b>	24546
<b>MDL Number</b>	MFCD00011108
<b>EC No.</b>	231-995-1
<b>IUPAC Name</b>	magnesium difluoride
<b>Beilstein/Reaxys No.</b>	N/A
<b>SMILES</b>	[Mg+2].[F-].[F-]
<b>Inchl Identifier</b>	InChI=1S/2FH.Mg/h2*1H;/q;;+2/p-2
<b>Inchl Key</b>	ORUIBWPALBXDOA-UHFFFAOYSA-L
<b>Signal Word</b>	Warning
<b>Hazard Statements</b>	H315-H319-H335
<b>Hazard Codes</b>	Xi
<b>Precautionary Statements</b>	N/A
<b>Flash Point</b>	Not applicable
<b>Risk Codes</b>	36/37/38
<b>Safety Statements</b>	26-36
<b>RTECS Number</b>	OM3325000
<b>Transport Information</b>	NONH for all modes of transport
<b>WGK Germany</b>	3

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## SAFETY DATA SHEET

Date Accessed: 04/25/2024

Date Revised: 01/15/2022

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## SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #7783-40-6

**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:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
GHS07  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.  
Classification according to Directive 67/548/EEC or Directive 1999/45/EC  
Xi; Irritant  
R36/37/38: Irritating to eyes, respiratory system and skin.  
Information concerning particular hazards for human and environment:  
N/A  
Hazards not otherwise classified  
No data available  
Label elements  
Labelling according to Regulation (EC) No 1272/2008  
The substance is classified and labeled according to the CLP regulation.  
Hazard pictograms



GHS07  
Signal word: Warning  
Hazard statements  
H315 Causes skin irritation.

H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
Precautionary statements  
P261 Avoid breathing  
dust/fume/gas/mist/vapors/spray.  
P280 Wear protective gloves/protective clothing/eye  
protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with  
water for several minutes. Remove contact lenses, if  
present and easy to do. Continue rinsing.  
P304+P340 IF INHALED: Remove person to  
fresh air and keep comfortable for breathing.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance  
with local/regional/national/international regulations.  
WHMIS classification  
D2B - Toxic material causing other toxic effects  
Classification system  
HMIS ratings (scale 0-4)  
(Hazardous Materials Identification System)  
HEALTH  
FIRE  
REACTIVITY  
2  
0  
0  
Health (acute effects) = 2  
Flammability = 0  
Physical Hazard = 0  
Other hazards  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A

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

Substances  
CAS No. / Substance Name:  
7783-40-6 Magnesium fluoride  
Identification number(s):  
EC number: 231-995-1

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

Description of first aid measures  
If inhaled:  
Supply patient with fresh air. If not breathing, provide  
artificial respiration. Keep patient warm.  
Seek immediate medical advice.  
In case of skin contact:

Immediately wash with soap and water; rinse thoroughly.  
Seek immediate medical advice.  
In case of eye contact:  
Rinse opened eye for several minutes under running water. Consult a physician.  
If swallowed:  
Seek medical treatment.  
Information for doctor  
Most important symptoms and effects, both acute and delayed  
No data available  
Indication of any immediate medical attention and special treatment needed  
No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media  
Suitable extinguishing agents  
CO<sub>2</sub>, extinguishing powder or water spray.  
Fight larger fires with water spray.  
Special hazards arising from the substance or mixture  
If this product is involved in a fire, the following can be released:  
Hydrogen fluoride (HF)  
Advice for firefighters  
Protective equipment:  
Wear self-contained respirator.  
Wear fully protective impervious suit.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures  
Use personal protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Environmental precautions:  
Do not allow material to be released to the environment without official permits.  
Do not allow product to enter drains, sewage systems, or other water courses.  
Do not allow material to penetrate the ground or soil.  
Methods and materials for containment and cleanup:  
Ensure adequate ventilation.  
Prevention of secondary hazards:  
No special measures required.  
Reference to other sections  
See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

### Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires:

No data available

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

No data available

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Specific end use(s)

No data available

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and

having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

Fluorides (as F)

mg/m<sup>3</sup>

ACGIH TLV 2.5

Austria MAK 2.5

Belgium TWA 2.5

Finland TWA 2.5

France TWA 2.5

Germany MAK 2.5

Hungary TWA 1; 2-STEL

Netherlands MAC-K 3.5

Norway TWA 0.6

Poland TWA 1; 3-STEL  
Sweden NGV 2  
Switzerland MAK-W 1.5; 3-KZG-W  
United Kingdom TWA 2.5  
Russia TWA 2  
Denmark TWA 2.5  
USA PEL 2.5  
7783-40-6 Magnesium fluoride (100.0%)  
PEL (USA) Long-term value: 2.5 mg/m<sup>3</sup> as F  
REL (USA) Long-term value: 2.5 mg/m<sup>3</sup> as F  
TLV (USA) Long-term value: 2.5 mg/m<sup>3</sup> as F, BE  
EL (Canada) Long-term value: 2.5 mg/m<sup>3</sup> as F  
Ingredients with biological limit values:  
7783-40-6 Magnesium fluoride (100.0%)  
BEI (USA) 2 mg/L  
Medium: urine  
Time: prior to shift  
Parameter: Fluoride (background, nonspecific)  
3 mg/L  
Medium: urine  
Time: end of shift  
Parameter: Fluoride (background, nonspecific)  
Additional information: No data  
Exposure controls  
Personal protective equipment  
Follow typical protective and hygienic practices for handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Remove all soiled and contaminated clothing immediately.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Maintain an ergonomically appropriate working environment.  
Breathing equipment:  
Use suitable respirator when high concentrations are present.  
Protection of hands: Impervious gloves  
Inspect gloves prior to use.  
Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.  
Eye protection: Safety glasses  
Body protection: Protective work clothing

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties  
Appearance:  
Form: Solid in various forms  
Color: Off-white

Odor: Odorless  
Odor threshold: No data available.  
pH: N/A  
Melting point/Melting range: 1261 °C (2302 °F)  
Boiling point/Boiling range: 2239 °C (4062 °F)  
Sublimation temperature / start: No data available  
Flash point: N/A  
Flammability (solid, gas): No data available.  
Ignition temperature: No data available  
Decomposition temperature: No data available  
Autoignition: No data available.  
Danger of explosion: Product does not present an explosion hazard.  
Explosion limits:  
Lower: No data available  
Upper: No data available  
Vapor pressure: N/A  
Density: No data available  
Relative density: No data available.  
Vapor density: N/A  
Evaporation rate: N/A  
Solubility in / Miscibility with Water at 18 °C (64 °F):  
0.076 g/l  
Partition coefficient (n-octanol/water): No data available.  
Viscosity:  
Dynamic: N/A  
Kinematic: N/A  
Other information  
No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
No data available  
Chemical stability  
Stable under recommended storage conditions.  
Thermal decomposition / conditions to be avoided:  
Decomposition will not occur if used and stored according to specifications.  
Possibility of hazardous reactions  
No dangerous reactions known  
Conditions to avoid  
No data available  
Incompatible materials:  
Oxidizing agents  
No data available  
Hazardous decomposition products:  
Hydrogen fluoride  
Metal oxide fume

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute toxicity: No effects known.

LD/LC50 values that are relevant for classification:

Oral LD50 2330 mg/kg (rat)

Skin irritation or corrosion:

Causes skin irritation.

Eye irritation or corrosion: Causes serious eye irritation.

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.

Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity: No effects known.

Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: May cause respiratory irritation.

Aspiration hazard: No effects known.

Subacute to chronic toxicity:

Fluorides may cause salivation, nausea, vomiting, diarrhea and abdominal pain, followed by weakness, tremors, shallow respiration, convulsions and coma. May cause brain and kidney damage. Chronic fluoride poisoning can cause severe bone changes, loss of weight, anorexia, anemia and dental defects.

Inhalation of magnesium compounds may cause metal fume fever.

Metallic magnesium which perforates the skin may cause local lesions. Some magnesium salts have produced muscle weakness, cardiac arrhythmias, respiratory effects and changes in blood chemistry following ingestion.

Subacute to chronic toxicity: No effects known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity

Aquatic toxicity: No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Additional ecological information:

Do not allow material to be released to the



environment without official permits.  
Do not allow undiluted product or large quantities to reach groundwater, water courses, or sewage systems.  
Avoid transfer into the environment.  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A  
Other adverse effects  
No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods  
Recommendation  
Consult official regulations to ensure proper disposal.  
Uncleaned packagings:  
Recommendation:  
Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

Not a hazardous material for transportation.  
UN-Number  
DOT, IMDG, IATA  
None  
UN proper shipping name  
DOT, IMDG, IATA  
None  
Transport hazard class(es)  
DOT, ADR, IMDG, IATA  
Class  
None  
Packing group  
DOT, IMDG, IATA  
None  
Environmental hazards:  
N/A  
Special precautions for user  
N/A  
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
N/A  
Transport/Additional information:  
Not dangerous according to the above specifications.  
DOT  
Marine Pollutant (DOT):  
No

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## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings) Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.

Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed. Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

Substance is not listed.

REACH - Pre-registered substances

Substance is listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

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## **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.

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