

Barium Fluoride	Pricing >
Barium Fluoride Granule	Pricing >
Barium Fluoride Lenses	Pricing >
Barium Fluoride Nanoparticles / Nanopowder	Pricing >
Barium Fluoride Pieces	Pricing >
Barium Fluoride Prisms	Pricing >
Barium Fluoride Sputtering Target	Pricing >
Barium Fluoride Window	Pricing >
Ultra Dry Barium Fluoride	Pricing >

Linear Formula	BaF ₂
Pubchem CID	62670
MDL Number	MFCD00003450
EC No.	232-108-0
IUPAC Name	barium(2+) difluoride
Beilstein/Reaxys No.	N/A
SMILES	[Ba+2].[F-].[F-]
Inchl Identifier	InChI=1S/Ba.2FH/h;2*1H/q+2;;/p-2
Inchl Key	OYLGJCQECKOTOL-UHFFFAOYSA-L
Signal Word	Danger
Hazard Statements	H301-H332
Hazard Codes	Xn
Precautionary Statements	P261-P264-P301+P312-P304+P340-P501
Flash Point	Not applicable
Risk Codes	20/22
Safety Statements	28
RTECS Number	CQ9100000
Transport Information	UN 1564 6.1/PG III
WGK Germany	1

GHS
Pictograms

GHS06 Skull and Crossbones



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SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #7787-32-8

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

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)
GHS07
Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H332 Harmful if inhaled.
Hazards not otherwise classified No data available
GHS label elements, including precautionary statements
Hazard pictograms



GHS07
Signal word Warning
Hazard statements
H302+H332 Harmful if swallowed or if inhaled.
Precautionary statements
P261 Avoid breathing

dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/if you feel unwell.
P312 Call a POISON CENTER/doctor/if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
WHMIS classification
D1B - Toxic material causing immediate and serious toxic effects
Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)
Health (acute effects) = 2
Flammability = 0
Physical Hazard = 0
Other hazards
Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
CAS No. / Substance Name:
7787-32-8 Barium fluoride
Identification number(s):
EC number: 232-108-0
Index number: 056-002-00-7

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

SECTION 5. FIREFIGHTING MEASURES

Extinguishing Media

Suitable extinguishing agents Product is not flammable. Use fire-fighting measures that suit the surrounding fire.

Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:

Hydrogen fluoride (HF)

Barium oxide

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

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.

Methods and materials for containment and cleanup:

Dispose of contaminated material as waste according to section 13.

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.

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: The product is not flammable
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: Do not store together with acids.
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

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:
7787-32-8 Barium fluoride (100.0%)
PEL (USA) Long-term value: 2.5 mg/m³
as F
REL (USA) Long-term value: 2.5 mg/m³
as F
TLV (USA) Long-term value: 2.5 mg/m³
as F, BEI
EL (Canada) Long-term value: 2.5 mg/m³
as F
Ingredients with biological limit values:
7787-32-8 Barium 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.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use suitable respirator when high concentrations are present.
Recommended filter device for short term use:
Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if airpurifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protection of hands:
Impervious gloves
Inspect gloves prior to use.
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
Material of gloves Nitrile rubber, NBR
Penetration time of glove material (in minutes) 480
Glove thickness 0.11 mm
Eye protection: Safety glasses
Body protection: Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Appearance:
Form: Powder, lump, or solid in various forms
Color: Colorless
Odor: Odorless
Odor threshold: No data available.
pH: N/A
Melting point/Melting range: 1353 °C (2467 °F)
Boiling point/Boiling range: 2260 °C (4100 °F)
Sublimation temperature / start: No data available
Flammability (solid, gas) No data available.
Ignition temperature: No data available
Decomposition temperature: No data available
Autoignition: No data available.
Danger of explosion: No data available.
Explosion limits:
Lower: No data available
Upper: No data available
Vapor pressure at 1436 °C (2617 °F): 1.3 hPa (1 mm Hg)
Density at 20 °C (68 °F): 4.83 g/cm³ (40.306 lbs/gal)
Relative density No data available.
Vapor density N/A

Evaporation rate N/A
Solubility in / Miscibility with
Water at 25 °C (77 °F): 1.2 g/l
Soluble
Partition coefficient (n-octanol/water): No data
available.
Viscosity:
Dynamic: N/A
Kinematic: N/A
Other information No data available

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: Acids
Hazardous decomposition products:
Barium oxide
Hydrogen fluoride

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
Harmful if inhaled.
Harmful if swallowed.
The Registry of Toxic Effects of Chemical Substances
(RTECS) contains acute toxicity data for this
substance.
LD/LC50 values that are relevant for classification:
Oral LD50 250 mg/kg (rat)
Skin irritation or corrosion: May cause irritation
Eye irritation or corrosion: May cause irritation
Sensitization: No sensitizing effects known.
Germ cell mutagenicity: No effects known.
Carcinogenicity:
ACGIH A4: Not classifiable as a human carcinogen:
Inadequate data on which to classify the agent in
terms of its carcinogenicity in humans and/or animals.
(oral) EPA-D: Not classifiable as to human
carcinogenicity: inadequate human and animal
evidence of carcinogenicity or no data are available.
(inhalation) EPA-CBD: Carcinogenic potential cannot

be determined.
(oral) EPA-NL: Not likely to be carcinogenic to humans.
Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.
Specific target organ system toxicity - repeated exposure: No effects known.
Specific target organ system toxicity - single exposure: No effects known.
Aspiration hazard: No effects known.
Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.
Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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

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.
Recommended cleansing agent: Water, if necessary with cleansing agents.

SECTION 14. TRANSPORT INFORMATION

UN-Number
DOT, IMDG, IATA UN1564
UN proper shipping name
DOT Barium compounds, n.o.s. (Barium fluoride)
IMDG, IATA BARIUM COMPOUND, N.O.S. (Barium fluoride)
Transport hazard class(es)
DOT
Class 6.1 Toxic substances.
Label 6.1
Class 6.1 (T5) Toxic substances
Label 6.1
IMDG, IATA
Class 6.1 Toxic substances.
Label 6.1
Packing group
DOT, IMDG, IATA III
Environmental hazards: N/A
Special precautions for user Warning: Toxic substances
EMS Number: F-A,S-A
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code N/A
Transport/Additional information:
DOT
Marine Pollutant (DOT): No
UN "Model Regulation": UN1564, Barium compounds, n.o.s. (Barium fluoride), 6.1, III

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
GHS label elements, including precautionary statements
Hazard pictograms
GHS07
Signal word Warning
Hazard statements
H302+H332 Harmful if swallowed or if inhaled.
Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/if you feel unwell.
P312 Call a POISON CENTER/doctor/if you feel

unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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)

7787-32-8 Barium fluoride

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.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

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