


<a href="#">Praseodymium Fluoride</a>	<a href="#">Pricing &gt;</a>
<a href="#">Praseodymium Fluoride Sputtering Target</a>	<a href="#">Pricing &gt;</a>

<b>Linear Formula</b>	PrF <sub>3</sub>
<b>Pubchem CID</b>	83677
<b>MDL Number</b>	MFCD00016287
<b>EC No.</b>	237-254-9
<b>IUPAC Name</b>	Trifluoropraseodymium
<b>Beilstein/Reaxys No.</b>	N/A
<b>SMILES</b>	F[Pr](F)F
<b>Inchl Identifier</b>	InChI=1S/3FH.Pr/h3*1H;/q;;;+3/p-3
<b>Inchl Key</b>	BOTHRHRVFIZTGG-UHFFFAOYSA-K

<b>Signal Word</b>	Danger
<b>Hazard Statements</b>	H301 + H311 + H331
<b>Hazard Codes</b>	T
<b>Precautionary Statements</b>	P261-P280-P301 + P310-P311
<b>Flash Point</b>	Not applicable
<b>Risk Codes</b>	23/24/25-32
<b>Safety Statements</b>	26-36/37/39-45
<b>RTECS Number</b>	N/A
<b>Transport Information</b>	UN 3288 6.1 / PGIII
<b>WGK Germany</b>	3
<b>GHS Pictograms</b>	<a href="#">GHS06 Skull and Crossbones</a> 

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## SAFETY DATA SHEET

Date Accessed: 04/25/2024

## SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #13709-46-1

**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  
GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



Signal word Warning

Hazard-determining components of labeling:  
praseodymium trifluoride

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements

P231 Handle under inert gas.

P262 Do not get in eyes, on skin, or on clothing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P422 Store contents under inert gas.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.  
Classification system:  
NFPA ratings (scale 0 - 4)  
1  
0  
0  
Health = 1  
Fire = 0  
Reactivity = 0  
HMIS-ratings (scale 0 - 4)  
HEALTH  
FIRE  
REACTIVITY  
1  
0  
0  
Health = 1  
Fire = 0  
Reactivity = 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:  
13709-46-1 Praseodymium(III) fluoride  
Identification number(s):  
EC number:  
237-254-9

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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  
Carbon dioxide, extinguishing powder or water spray.  
Fight larger fires with water spray or alcohol resistant foam.  
Special hazards arising from the substance or mixture  
If this product is involved in a fire, the following can be released:  
Hydrogen fluoride (HF)  
Metal oxide fume  
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.  
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.

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## SECTION 7. HANDLING AND STORAGE

### Handling

Precautions for safe handling

Handle under dry protective gas.

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:

Store away from water/moisture.

Do not store together with acids.

Store away from reducing agents.

Further information about storage conditions:

Store under dry inert gas.

This product is hygroscopic.

Keep container tightly sealed.

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

Protect from humidity and water.

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:

13709-46-1 Praseodymium(III) fluoride, anhydrous (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, BEI

EL (Canada) Long-term value: 2.5 mg/m<sup>3</sup> as F

Ingredients with biological limit values:  
13709-46-1 Praseodymium(III) fluoride, anhydrous  
(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.  
The selection of suitable gloves not only  
depends on the material, but also on quality. Quality  
will vary from manufacturer to manufacturer.  
Penetration time of glove material (in minutes)  
No data available  
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:  
Various forms (powder/flake/crystalline/beads, etc.)  
Color:  
Green  
Odor:  
Odorless  
Odor threshold:  
No data available.

pH:  
N/A  
Melting point/Melting range:  
1395 °C (2543 °F)  
Boiling point/Boiling range:  
No data available  
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:  
N/A  
Density at 20 °C (68 °F):  
6.2 g/cm<sup>3</sup> (51.739 lbs/gal)  
Relative density  
No data available.  
Vapor density  
N/A  
Evaporation rate  
N/A  
Solubility in / Miscibility with  
Water:  
Insoluble  
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:  
Acids  
Water/moisture  
Reducing agents  
Hazardous decomposition products:  
Hydrogen fluoride  
Metal oxide fume

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity:  
Harmful in contact with skin.  
Harmful if swallowed.  
Toxic if inhaled.  
Danger through skin absorption.  
LD/LC50 values that are relevant for classification:  
No data  
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:  
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.  
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: 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**

UN-Number  
DOT, IMDG, IATA  
UN3288  
UN proper shipping name  
DOT  
Toxic solid, inorganic, n.o.s. (Praseodymium(III) fluoride, anhydrous)  
IMDG, IATA  
TOXIC SOLID, INORGANIC, N.O.S.  
(Praseodymium(III) fluoride, anhydrous)  
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":  
UN3288, Toxic solid, inorganic, n.o.s.  
(Praseodymium(III) fluoride, anhydrous), 6.1, III

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## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental  
regulations/legislation specific for the substance or  
mixture  
GHS label elements  
The product is classified and labeled in accordance  
with 29 CFR 1910 (OSHA HCS)  
Hazard pictograms  
GHS06  
Signal word  
Danger  
Hazard statements  
H302+H312 Harmful if swallowed or in contact with  
skin.  
H331  
Toxic if inhaled.  
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.

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 Non-Domestic Substances List (NDSL).  
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.

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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