

PRMI

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Silver tetrafluoroborate
CAS #: 14104-20-2
FORMULA: AgBF₄
SYNONYM: Silver fluoroborate

SECTION 2 Composition and Information on Ingredients

| INGREDIENT: | CAS # | % | ACGIH (TWA) | OSHA (PEL) |
|----------------|------------|-----|--|--|
| Title Compound | 14104-20-2 | 100 | 0.01mg/m ³ (as Ag) 2.5mg/m ³ (as F) | 0.01mg/m ³ (as Ag) 2.5mg/m ³ (as F) |

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: The solid may cause fluoride poisoning. Early symptoms include nausea, vomiting, diarrhea, and weakness.

PRIMARY ROUTES OF EXPOSURE: Contact with skin and eyes. Inhalation of dust.

EYE CONTACT: causes burns to the eyes. May cause serious eye damage. Effects may not immediately appear.

SKIN CONTACT: Causes burning with redness and pain. Soluble fluoride may be corrosive. Effects may not appear immediately

INHALATION: Inhalation of dust may cause chemical burns to the respiratory tract, causing coughing, sore throat, and labored breathing.

INGESTION: May cause salivation, nausea, vomiting, bloody diarrhea, abdominal pain, weakness and convulsions.

CHRONIC HEALTH EFFECTS: Prolonged exposure to hydrolysable fluorine compounds can cause deterioration of bone and tooth structure. Silver salts can lead to the condition known as argyria - a general gray pigmentation of the skin and mucous membranes

ACUTE HEALTH EFFECTS: Fluoride poisoning may cause nausea, vomiting, diarrhea, weakness, coma, respiratory failure and cardiovascular collapse.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical

assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable

AUTO IGNITION TEMPERATURE: none

EXPLOSION LIMITS: none

EXTINGUISHING MEDIUM: None. Material is non flammable

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit corrosive fumes of hydrofluoric acid

UNUSUAL FIRE OR EXPLOSION HAZARDS: No unusual fire or explosion hazards.

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: Small spills can be mixed with powdered sodium bicarbonate, lime, or calcium carbonate and swept up. Avoid raising dust.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store solid in a tightly sealed container away from light and moisture. Handle under a dry atmosphere of air or nitrogen.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: off white powder

MOLECULAR WEIGHT: 194.67

MELTING POINT (DEG. C.): none

BOILING POINT: no data

VAPOR PRESSURE: not applicable

SPECIFIC GRAVITY: no data

SOLUBILITY IN WATER: very soluble

SECTION 10 Stability and Reactivity

STABILITY: air and moisture stable

HAZARDOUS POLYMERIZATION: no hazardous polymerization

CONDITIONS TO AVOID: avoid strong light

INCOMPATIBILITY: mineral acids and active metals

DECOMPOSITION PRODUCTS: hydrofluoric acid, silver fluoride and boron oxide

SECTION 11 Toxicological Information

RTECS DATA: Intravenous (mouse); LD50: 56 mg/kg.

MUTAGENIC EFFECTS: no data

TETRATOGENIC EFFECTS: no data

CARCINOGENIC EFFECTS: no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Corrosive solids, n.o.s., Class 8, UN1759, PG II

SECTION 15 Regulatory Information

TSCA: Listed in the TSCA inventory

SARA (TITLE 313): Not reportable under SARA section 313

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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