

# **Material Safety Data Sheet**

Date Printed: 04/20/2007 Date Updated: 01/30/2006 Version 1.40

#### Section 1 - Product and Company Information

**Product Name Product Number**  Silver pentafluoropropionate, 98%

326216

Aldrich Chemical

Company Street Address

Brand

Fax:

Sigma-Aldrich 3050 Spruce Street

City, State, Zip, Country

Technical Phone:

SAINT LOUIS, MO 63103 US

800-325-5832

800-325-5052

**Emergency Phone:** 

314-776-6555

#### Section 2 - Composition/Information on Ingredient

Substance Name

CAS#

**SARA 313** 

Annex I Index EC no

SILVER PENTAFLUOROPROPIONATE

509-09-1

208-093-1

Number

Formula Synonyms

Pentafluorpropionan stribrny (Czech), Propanic acid, pentafluoro-, silver(1+) salt (9Cl, Silver

#### Section 3 - Hazards Identification

# **Emergency Overview**

Harmful.

Harmful if swallowed. Irritating to respiratory system and skin. Risk of serious damage to eyes.

HMIS Rating Health: 2

Flammability: 0

Reactivity: 1

**NFPA Rating** Health: 2

Flammability: 0

Reactivity: 1

For additional information on toxicity, please refer to Section 11.

# Section 4 - First Aid Measures

# Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

#### Dermal Exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes Call a physician

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

# Section 5 - Fire Fighting Measures

**Autoignition Temp:** 

#### **Extinguishing Media**

Suitable

Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting

**Protective Equipment** 

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Emits toxic fumes under fire conditions.

# Section 6 - Accidental Release Measures

# Procedure to be Followed in Case of Leak or Spill

Evacuate area

Procedure(s) of Personal Precaution(s)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

# Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Keep tightly closed. Store in a cool dry place. Store under inert gas. Store in the dark.

**Special Requirements** 

Light sensitive. Hygroscopic. Store under inert gas.

# Section 8 - Exposure Controls / PPE

**Engineering Controls** 

Safety shower and eye bath. Mechanical exhaust required.

# **Personal Protective Equipment**

Respiratory

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-punifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand

Compatible chemical-resistant gloves.

Chemical safety goggles

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#### General Hygiene Measures

Wash thoroughly after handling.

#### **Exposure Limits, RTECS**

Country USA New Zealand

Source MSHA Standard-air

OEL

Type TWA TWA

Value 0.01 MG(AG)/M3 0.01 MG(AG)/M3

Remarks: check ACGIH TLV

# Section 9 - Physical/Chemical Properties

Appearance

Physical State

Solid.

Molecular Weight:

270.89 AMU

N/A BP/BP Range N/A 242 - 244 °C MP/MP Range Freezing Point N/A Vapor Pressure N/A Vapor Density N/A Saturated Vapor Conc. N/A SG/Density N/A **Bulk Density** N/A Odor Threshold N/A Volatile% N/A **VOC Content** N/A **Water Content** N/A Solvent Content N/A **Evaporation Rate** N/A Viscosity N/A Partition Coefficient N/A Decomposition Temp. N/A Flash Point °F N/A Flash Point °C N/A

**Autoignition Temp** N/A = not available

**Explosion Limits** 

Flammability

Solubility

# Section 10 - Stability and Reactivity

### Stability

Stable Stable.

Conditions of Instability

May discolor on exposure to light. Hygroscopic.

N/A

N/A

N/A

N/A

Materials to Avoid

Strong oxidizing agents.

#### Hazardous Decomposition Products

**Hazardous Decomposition Products** 

Carbon monoxide, Carbon dioxide, Hydrogen fluoride, Silver/silver oxides.

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# **Hazardous Polymerization**

**Hazardous Polymerization** 

Will not occur.

#### Section 11 - Toxicological Information

#### Route of Exposure

Skin Contact

Causes skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

**Eye Contact** 

Causes severe eye irritation.

Inhalation

Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion

Harmful if swallowed.

Signs and Symptoms of Exposure

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver). To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: UF6476000

**Toxicity Data** 

Oral - Rat: 1770 mg/kg (LD50)

Irritation Data

Skin - Rabbit: 500 mg 24H

Remarks: Moderate irritation effect

Eyes - Rabbit: 5 mg 24H

Remarks: Severe irritation effect

# Section 12 - Ecological Information

No data available.

#### Section 13 - Disposal Considerations

#### Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

# Section 14 - Transport Information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

Non-Hazardous for Air Transport: Non-hazardous for air transport.

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# Section 15 - Regulatory Information

#### **EU Additional Classification**

Symbol of Danger: Xn

Indication of Danger

Harmful.

**Risk Statements** R: 22 37/38 41

Harmful if swallowed. Irritating to respiratory system and skin. Risk of serious damage to eyes.

S: 26 37/39

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

#### **US Classification and Label Text**

Indication of Danger

Harmful.

**Risk Statements** 

Harmful if swallowed. Irritating to respiratory system and skin. Risk of serious damage to eyes

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

#### United States Regulatory Information

SARA Listed: Yes

Deminimis: 1.0 %

Notes: This product is subject to SARA section 313 reporting requirements - silver compounds.

TSCA Inventory Item: Yes

# Canada Regulatory Information WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information

required by the CPR.

DSL: No NDSL: Yes

# Section 16 - Other Information

#### Disclaimer

For R&D use only. Not for drug, household or other uses.

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. Sigma-Aidrich Inc., 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 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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