

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name **Silver(I) fluoride**
Product Code 002862
CAS Number 7775-41-9
Other Names
IUPAC
MFCD Number MFCD00003410
EC/EINECS 231-895-8
REACH Number

Index-No

2. Relevant identified uses of the substance or mixture and uses advised against

Research and Development

3. Details of the supplier of the safety data sheet

Fluorochem Ltd
Unit 14, Graphite Way
Hadfield
Derbyshire
SK13 1QH
UK

Telephone: +44(0)1457 860111
Fax: +44(0)1457 892799
Email: sds@fluorochem.co.uk



4. Emergency telephone number

+44(0)7855 268577 -

2. Hazards Identification

1. Classification of the substance or mixture

H302	Acute Tox. 4	
H312	Acute Tox. 4	
H314	Skin Corr. 1B	
H318	Eye Dam. 1	
H332	Acute Tox. 4	
H400	Aquatic Acute 1	

2. Label elements

Signal Word **Danger**



Hazard Statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.

Precautionary Phrases

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

Product Name	Hazards	Concentration
Silver(I) fluoride		
	CAS Number: 7775-41-9 EC/EINECS: 231-895-8	H302, H312, H314, H318, H332, H400 Acute Tox. 4, Aquatic Acute 1, Eye Dam. 1, Skin Corr. 1B <=100%

4. First Aid Measures

1. Description of first aid measures

<i>Skin Contact</i>	P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
<i>Eye Contact</i>	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<i>Ingestion</i>	P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
<i>Inhalation</i>	P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

2. Most important symptoms and effects

There may be irritation and redness.

3. Indication of any immediate medical attention

No additional measures required

5. Firefighting measures

1. Extinguishing Media

<i>Suitable</i>	Carbon dioxide. Dry chemical powder. Water. fight larger fires with water jet or alcohol resistant foam
<i>Unsuitable</i>	no data

2. Special Hazards arising from the substance or mixture

In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
In combustion emits toxic fumes of hydrogen fluoride.

3. Advice for Fire Fighters

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

6. Accidental Release Measures

1. Personal Precautions

Refer to section 8 of SDS for personal protection details.

2. Environmental Precautions

Do not discharge into drains or rivers.
Contain the spillage using bunding.

3. Methods & Materials

P391: Collect spillage.
Absorb into dry earth or sand.
Use neutralising agent.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

No Special Measures Required

7. Handling and Storage

1. Personal Precautions

Safe Handling Ensure there is sufficient ventilation of the area.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.

Protection against explosions and fires P363: Wash contaminated clothing before reuse.
Keep ignition sources away- do not smoke (smoking kills)

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks Store in cool, well ventilated area.
Keep away from sources of ignition.
Keep container tightly closed.

Storage Controls No special requirements

Maintaining Integrity Store away from oxidising agents
Keep in tightly closed container in cool area away from direct sunlight or heat sources.

Other advice no further information available

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

General protective and hygiene measures P280: Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands during breaks and at the end of handling the material
Immediately remove any contaminated clothing

Engineering measures P271: Use only outdoors or in a well-ventilated area.
Use only in a chemicals fume hood.

Eye / Face Protection Safety Glasses with side-shields.
Face-shield.

Hand protection The selected Gloves have to satisfy the specifications of EU directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
Skin protection Gloves must be inspected prior to use.
Use proper glove removal technique to avoid skin contact with this product.
Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice.
Wash and dry hands.
Protective clothing.

Other personal protection advice no data

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	Solid
Odour	Odourless
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	435°C
Initial boiling point and boiling range	1150°C
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	5.852
Solubility(ies):	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

Hygroscopic

2. Stability

Stable under normal conditions.

3. Possibility of Hazardous Reactions

no hazardous reactions known

4. Conditions to Avoid

no specific conditions to avoid

5. Incompatible Materials

Oxidising agents.
Strong acids.
Water.

6. Hazardous Decomposition Products

In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
In combustion emits toxic fumes of hydrogen fluoride.

11. Toxicology information

1. Information

Acute Toxicity Oral LD50 (Rat) 1500mg/kg
Oral LD50 (Mouse) 600mg/kg
Dermal LD50 (Rabbit) 1400mg/kg
Inhalative LC50/4H (Rat) 1974ppm/4H

Skin corrosion/irritation irritant for skin and mucous membranes

Serious eye Damage/irritation strong caustic effect.

<i>Respiratory or skin sensitisation</i>	No sensitizing effect known
<i>Germ Cell mutagenicity</i>	not known
<i>Carcinogenicity</i>	not known
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	not known

2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH
swallowing will lead to a strong caustic effect on mouth and throat and the danger of perforation of oesophagus and stomach.

12. Ecological Information

1. Toxicity

very toxic for fish

2. Persistence and degradability

not known

3. Bio-Accumulative Potential

not known

4. Mobility and Soil

not known

5. Results of PBT & vPvB assessment

not known

6. Other adverse effects

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
Very toxic for aquatic organisms
Harmful to aquatic life

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations Hand over to authorised disposal company as hazardous waste.

Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

- UN Number:** 3260
- Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.
- Transport hazard class(es):** : 8 Sub Class :



- Packing group:** II
- Environmental hazards:**

6. Special Precautions for user:

7. Transport in bulk:

Road (ADR)

1. **UN Number:** 3260

2. **Shipping Name:** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S (Silver(I) fluoride).

3. **Transport hazard class(es):** : 8 Sub Class :



4. **Packing group:** II

5. **Environmental hazards:**

6. **Special Precautions for user:**

7. **Transport in bulk:**

Sea (IMDG)

1. **UN Number:** 3260

2. **Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.

3. **Transport hazard class(es):** : 8 Sub Class :



4. **Packing group:** II

5. **Environmental hazards:**

6. **Special Precautions for user:**

7. **Transport in bulk:** IBCINS: IBC08
IBCPPROV: B4, B21
UNTANKINS: -
TANKPROV: TP33

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

2. Associated risk phrases according to European directive 67/548/EEC

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.