

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Name: Silver Hexafluorophosphate

CAS #: 26042-63-7

Relevant identified uses of the substance: Scientific research and development

Supplier details:

Stanford Advanced Materials

E-mail: sales@samaterials.com

Tel: (949) 407-8904

Address: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.

SECTION 2. HAZARDS IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Eye Damage/Irritation [Category 1]

Corrosive to Metals [Category 1]

Skin Corrosion/Irritation [Category 1B]

Signal word: Danger!

Hazard Statement(s): Causes serious eye damage

Causes severe skin burns and eye damage

May be corrosive to metals

Pictogram(s) or Symbol(s):

Precautionary Statement(s):

[Prevention] Do not breathe dusts or mists. Use only outdoors or in a well-ventilated area. Wear

protective gloves,

protective clothing, eye protection and face protection. Wear eye protection. Wear face protection (full

length face shield). Keep only in original container.

[Response] If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off

immediately all

contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center

or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. Absorb spillage to prevent material damage.

[Storage] Store locked up. Store in corrosive resistant container with a resistant inner liner.

[Disposal] Dispose of contents and container in accordance with US EPA guidelines for the classification and

determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance

Components: Silver Hexafluorophosphate

Percent: >98.0%(T)

CAS Number: 26042-63-7

Molecular Weight: 252.83

Chemical Formula: AgPF₆

SECTION 4. FIRST AID MEASURES

Inhalation: Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed.

Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Skin contact: For severe burns, immediate medical attention is required. Immediately call a poison center or doctor.

Remove and wash contaminated clothing before re-use. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Eye contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Eye contact with vapors or substance may cause severe injury, burns, or death. Call emergency medical service.

Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Ingestion: Do not induce vomiting with out medical advice. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and

take precautions to protect themselves.

Symptoms/effects:

Acute: Cough. Headache. Nausea. Shortness of breath.

Delayed: No data available

Immediate medical attention: **WARNING:** It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because

the inhaled material is corrosive. For severe burns, immediate medical attention is required. If breathing

has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury.

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Dry chemical, CO₂ or water spray. Consult with local fire authorities before attempting large scale fire fighting operations.

Specific hazards arising from the chemical

Hazardous combustion products: These products include: Halogenated compounds Phosphates
Metallic oxides

Other specific hazards: **WARNING:** Highly toxic HF gas is produced during combustion.

Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. Containers may explode when heated. Move containers from fire area if you can do it without risk.

Special protective equipment for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations

ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is

specifically

recommended by the manufacturer. It may provide little or no thermal protection.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes, and clothing. Keep people away from and upwind

of spill/leak. Do not touch

damaged containers or spilled material unless wearing appropriate protective clothing (Section 8).

Warn

unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation.

Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Personal protective equipment: Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Dust

respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).

Emergency procedures: Prevent dust cloud. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the

area, and exercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements

or confined areas; dike if needed.

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if

without risk. Absorb with an inert material and put

the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect

absorbed material. Ventilate the area.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage.

Prevent entry into sewers, basements or confined areas; dike if needed.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: Avoid inhalation of vapor or mist. Manipulate under an adequate fume hood. Avoid contact with skin and eyes. May corrode metallic surfaces. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Keep container dry.

Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection.

When using do not eat, drink, or smoke. Keep away from sources of ignition.

Conditions for safe storage: Store in corrosive resistant container with a resistant inner liner. Keep containers tightly closed in a cool, well-ventilated place. Store locked up. Keep away from incompatibles. Containers which are opened must

be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under

inert gas (e.g. Argon). Hygroscopic material, store in a tightly sealed container.

Storage incompatibilities: Store away from oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

ACGIH TLV (TWA): 0.01mg(Ag)/m³

OSHA PEL (TWA): 0.01mg(Ag)/m³

Appropriate engineering controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ventilation

is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers

could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

Respiratory protection: Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.

Hand protection: Nitrile gloves.

Eye protection: Safety glasses.

Skin and body protection: Wear protective clothing (lab coat and chemical resistant boots).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Solid

Form: Crystal - Powder

Color: White - Pale yellow

Odor: No data available

Odor threshold: No data available

Melting point/freezing point: 102°C (dec.) (216°F)

Boiling point/range: No data available

Decomposition temperature: No data available

Relative density: No data available

Kinematic Viscosity: No data available

Partition coefficient: No data available

n-octanol/water (log Pow)

Flash point: No data available

Flammability (solid, gas): No data available

pH: No data available

Vapor pressure: No data available

Vapor density: No data available

Dynamic Viscosity: No data available

Evaporation rate: No data available

(Butyl Acetate = 1)

Autoignition temperature: No data available

Flammability or explosive limits: No data available

Lower: No data available

Upper: No data available

Solubility(ies):

Water: Soluble

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Corrodes in contact with metals.

Chemical Stability: Light sensitive. Moisture sensitive.

Possibility of Hazardous Reactions: No hazardous reactivity has been reported.

Conditions to avoid: Light sensitive. Moisture sensitive.

Incompatible materials: Oxidizing agents

Hazardous Decomposition Products: No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

No data available

Skin corrosion/irritation:

No data available

Serious eye damage/irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity:
No data available

IARC: No data available NTP: No data available OSHA: No data available

Reproductive toxicity:

No data available

Routes of Exposure: Inhalation, Eye contact, Ingestion, Skin contact.

Symptoms related to exposure:

Skin contact may produce burns. Skin contact may result in inflammation; characterized by itching, scaling, reddening, or occasionally blistering. Eye contact can result in corneal damage or blindness.

Potential Health Effects:

No specific information available; skin and eye contact may result in irritation. May be harmful if inhaled or ingested.

Target organ(s): No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Fish: No data available

Crustacea: No data available

Algae: No data available

Persistence and degradability: No data available

Bioaccumulative potential (BCF): No data available

Mobility in soil: No data available

Partition coefficient:

n-octanol/water (log Pow)

No data available

Soil adsorption (Koc): No data available

Henry's Law:

constant (PaM³/mol)

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with

Federal, State and Local

rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn

in a

chemical incinerator equipped with an afterburner and scrubber system. This section is intended to

provide

assistance but does not replace these laws, nor does compliance in accordance with this section

ensure

regulatory compliance according to the law. US EPA guidelines for Identification and Listing of

Hazardous

Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment,

drains,

water ways, or the soil.

Disposal of container: Dispose of as unused product. Do not re-use empty containers.

Other considerations: Observe all federal, state and local regulations when disposing of the

substance.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

UN number:

UN3260

Proper Shipping Name:

Corrosive solid, acidic, inorganic, n.o.s.

Class or Division:

8 Corrosive material

Packing Group:

II

IATA

UN number:

UN3260

Proper Shipping Name:

Corrosive solid, acidic, inorganic, n.o.s.

Class or Division:

8 Corrosive material

Packing Group:

II

IMDG

UN number:

UN3260

Proper Shipping Name:

Corrosive solid, acidic, inorganic, n.o.s.

Class or Division:

8 Corrosive material

Packing Group:

II

SECTION 15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations

CERCLA Hazardous substance and Reportable Quantity:

SARA 313: Not Listed

SARA 302: Not Listed

State Regulations

State Right-to-Know

Massachusetts Not Listed

New Jersey Not Listed

Pennsylvania Not Listed

California Proposition 65: Not Listed

Other Information

NFPA Rating:

Health: 3

Flammability: 0

Instability: 0

HMIS Classification:

Health: 3 Flammability: 0

Physical: 0

International Inventories

WHMIS hazard class: E: Corrosive material.

Canada: NDSL On NDSL

EC-No: 247-428-6

SECTION 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.