

## SAFETY DATA SHEET

Preparation Date: 12/05/2018

Revision date 12/05/2018

Revision Number: G1

### 1. Identification

#### Product identifier

**Product code:** A4008  
**Product Name:** AMMONIUM HEXAFLUOROPHOSPHATE, 99+%

#### Other means of identification

**Synonyms:** Ammonium phosphorus fluoride(1-), hexafluoro-, ammonium (1:1)  
**CAS #:** 16941-11-0  
**RTECS #** Not available  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>  
**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

#### Label elements

**Danger**

#### **Hazard statements**

Causes severe skin burns and eye damage

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Not available

**Precautionary Statements - Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response***Immediately call a POISON CENTER or doctor/physician*

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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/physician.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No	Weight-%
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	100

**4. FIRST AID MEASURES****First aid measures****General Advice:**

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

**Skin Contact:**

Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

**Eye Contact:**

Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

**Inhalation:**

Move to fresh air. WARNING! It may be hazardous to the person providing aid to give

mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, give oxygen. Immediate medical attention is required.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Severe skin and eye irritation or burns  
Causes severe skin burns and eye damage  
May cause irritation of respiratory tract  
Irritating to mouth, throat and stomach  
Can burn mouth, throat, and stomach  
May cause perforation of the digestive tract

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:** The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous combustion products** If it is involved in a fire the following can be released:  
Hydrogen fluoride. Nitrogen oxides (NOx). Phosphorus oxides. Ammonia.

**Specific hazards** No information available.

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Wear personal protective equipment. 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.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

**Safe Handling Advice**

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

**Incompatible Materials:**

Strong acids  
Strong bases  
Strong oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### National occupational exposure limits

##### United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	None	None	None	None

##### Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	None	None	None	None

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### Australia and Mexico

Component	CAS No	Australia	Mexico
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	None	None

### Appropriate engineering controls

**Engineering measures to reduce exposure:** Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

**Eye protection:** Goggles

**Skin and body protection:** Long sleeved clothing  
Chemical resistant apron  
Gloves

**Respiratory protection:** Effective dust mask. or. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> Crystalline powder.	<b>Color:</b> White.
<b>Odor:</b> No information available.	<b>Taste</b> No information available.	<b>Formula</b> F6PH4N
<b>Molecular/Formula weight (g/mole):</b> 163.00	<b>Flammability (solid, gas)</b> no data available	<b>Flashpoint (°C/°F):</b> No information available
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> 198°C/388°F (Dec.)	<b>Decomposition temperature(°C/°F):</b> 198°C/388°F
<b>Boiling point/range(°C/°F):</b> No information available	<b>Bulk density:</b> No information available	<b>Density (g/cm3):</b> 2.18
<b>Specific gravity:</b> No information available	<b>pH</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available

**Product code:** A4008

**Product name:** AMMONIUM  
HEXAFLUOROPHOSPHATE, 99+%

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**Evaporation rate:**  
No information available

**Vapor density:**  
No information available

**VOC content (g/L):**  
No information available

**Odor threshold (ppm):**  
No information available

**Partition coefficient  
(n-octanol/water):**  
No information available

**Viscosity:**  
No information available

**Miscibility:**  
No information available

**Solubility:**  
Soluble in Water

## 10. STABILITY AND REACTIVITY

**Reactivity**  
No information available

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Incompatible materials.

**Incompatible Materials:**  
Strong acids  
Strong bases  
Strong oxidizing agents

**Hazardous decomposition products:** No information available.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**  
Skin. Eyes. Inhalation. Ingestion.

### Acute Toxicity

### Component Information

AMMONIUM HEXAFLUOROPHOSPHATE, 99+%

CAS No 16941-11-0

**LD50/oral/rat** = No information available  
**LD50/oral/mouse** = No information available  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = No information available  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = No information available

## Product Information

### LD50/oral/rat =

Value - Acute Tox Dermal = No information available

### LD50/oral/mouse =

Value - Acute Tox Oral = No information available

### LD50/dermal/rabbit

Value - Acute Tox Dermal = No information available

### LD50/dermal/rat

VALUE - Acute Tox Dermal = No information available

### LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

### LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

## Symptoms

### Skin Contact:

Causes severe irritation and burns.

### Eye Contact:

Severe eye irritation. Causes eye burns. Causes serious eye damage.

### Inhalation

May cause irritation of respiratory tract.

### Ingestion

Irritating to mouth, throat and stomach. Corrosive to the mouth, throat, and stomach. May cause perforation of the digestive tract.

### Aspiration hazard

No information available.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

### Chronic Toxicity

No information available.

### Sensitization:

No information available.

### Mutagenic Effects:

No information available

### Carcinogenic effects:

Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

**Reproductive toxicity** No data is available  
**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** No data available.  
**Persistence and degradability:** No information available  
**Bioaccumulative potential:** No information available.  
**Mobility in soil** No information available  
**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**  
Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**  
Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	None	None	None	None

**14. TRANSPORT INFORMATION**

**DOT**  
**UN-No:** UN3260  
**Proper Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.  
**Hazard Class** 8  
**Subsidiary Class** No information available  
**Packing group:** II

**Product code:** A4008

**Product name:** AMMONIUM  
HEXAFLUOROPHOSPHATE, 99+%

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**Emergency Response Guide 154****Number****Marine Pollutant** No data available**DOT RQ (lbs):** No information available**Special Provisions** IB8, IP2, IP4, T3, TP33**Symbol(s):** [DOT]: (G) - Identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parentheses, in association with the basic description.**Description:** UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (AMMONIUM HEXAFLUOROPHOSPHATE, 99+%), 8, II**TDG (Canada)****UN-No:** UN3260**Proper Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.**Hazard Class** 8**Subsidiary Risk:** No information available**Packing Group:** II**Marine Pollutant** No Information available**Description:** UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (AMMONIUM HEXAFLUOROPHOSPHATE, 99+%), 8, II**ADR****UN Number** UN3260**Proper Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.**Transport hazard class(es)** 8**Packing group** II**Subsidiary Risk:** No information available**Special Provisions** 274**Description:** UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (AMMONIUM HEXAFLUOROPHOSPHATE, 99+%), 8, II**IMDG****UN-No:** UN3260**Proper Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.**Hazard Class:** 8**Subsidiary Risk:** No information available**Packing Group:** II**Marine Pollutant** No information available**EMS:** F-A**Special Provisions** 274**Description** UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (AMMONIUM HEXAFLUOROPHOSPHATE, 99+%), 8, II**RID****UN Number** UN3260**Proper Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.**Transport hazard class(es)** 8**Subsidiary Risk:** No information available**Packing group** II**Special Provisions** 274**Description:** UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (AMMONIUM HEXAFLUOROPHOSPHATE, 99+%), 8, II**ICAO (air)****UN-No:** UN3260**Proper Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.**Hazard Class** 8**Subsidiary Risk:** No information available

**Packing Group:** II  
**Description:** UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (AMMONIUM HEXAFLUOROPHOSPHATE, 99+%), 8, II  
**Special Provisions** A3

**IATA**

**UN Number** UN3260  
**Proper Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s.  
**Transport hazard class(es)** 8  
**Subsidiary Risk:** No information available  
**Packing group** II  
**Precautionary Statements - Response** 8L  
**Special Provisions** No information available  
**Description:** UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (AMMONIUM HEXAFLUOROPHOSPHATE, 99+%), 8, II

**15. REGULATORY INFORMATION**

**International Inventories**

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia AICS	EINECS-No.
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	PresentACTIVE	Present KE-01673	Not present	Present (1)-682,(1)-312	Present	Present	Present 241-009-1

**U.S. Regulations**

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	None	None	None	None	None

**U.S. TSCA**

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
AMMONIUM	16941-11-0	Not Applicable	Not Applicable

HEXAFLUOROPHOSPHATE, 99+%			
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## Canada

### WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: The WHMIS 2015 classification of this product has not been validated or reviewed yet.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

### DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	Not Listed	Present

Component	CAS No	CEPA Schedule I - Toxic Substances
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	Not listed

### EU Classification

#### EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0	No information

#### EU - CLP (1272/2008)

#### R-phrase(s)

Not determined

#### S -phrase(s)

none

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
AMMONIUM HEXAFLUOROPHOSPHATE, 99+%	16941-11-0		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

#### Indication of danger:

not determined

## 16. OTHER INFORMATION

**Preparation Date:** 12/05/2018  
**Revision date** 12/05/2018  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**