

**GELEST, INC.**

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**MATERIAL SAFETY  
DATA SHEET**

**EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300**

NAME USED ON LABEL: **AMMONIUM HEXAFLUOROSILICATE - SIA0705.0**

CHEMICAL NAME: AMMONIUM HEXAFLUOROSILICATE

SYNONYMS: AMMONIUM FLUOROSILICATE

CHEMICAL FAMILY: FLUOROSILICATE

FORMULA:  $(\text{NH}_4)_2\text{SiF}_6$

HMIS CODES    HEALTH: 3    FLAMMABILITY: 0    REACTIVITY: 0

**INGREDIENTS**

IDENTITY	CAS NO.	%	TLV
AMMONIUM HEXAFLUOROSILICATE	16919-19-0	>98	not established
(OSHA PEL, inorganic fluoride as F 2.5mg/m <sup>3</sup> )			

**PHYSICAL DATA**

Boiling Point: N/A  
Specific Gravity: 2.01  
Vapor Density: N/A  
% volatiles N/A  
Molecular Weight: 178.14  
Appearance & Color: White powder

Melting Point: not determined  
Vapor Pressure: not determined  
Solubility in water: soluble  
Evaporation rate: NA  
Other: N/A

**FIRE & EXPLOSION DATA**

Flash Point, COC: Not Flammable    Autoignition Temp.: NA  
Flammability Limits- LEL: NA    UEL: NA

Extinguishing Media: N/A

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Irritating fumes vapors may develop when material is mixed with other materials and exposed to elevated temperatures or open flame.

-1-(SIA0705.0)

## ENVIRONMENTAL INFORMATION

Spill response: May be hazardous to aquatic life if released to open waters. Sweep material while wearing a dust mask. Transfer to a suitable container for disposal.

Recommended Disposal: Dispose of as solid waste. Follow all chemical pollution control regulations. Large quantities may be recycled by return to the Gelest, the manufacturer.

## HEALTH HAZARD DATA

Eye Contact: Will cause irritation or conjunctivitis.

Skin contact: Material is extremely destructive to mucous membranes.

Inhalation: Inhalation of particulates will irritate the respiratory tract. Overexposure causes inflammation and edema of the larynx and bronchi. Symptoms of exposure are a burning sensation, coughing, wheezing and laryngitis.

Oral Toxicity: not determined

Chronic Exposure: May cause osteofluorosis.

### SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water.

INHALATION: Move exposed individual to fresh air. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

*Note to Physician: Calcium gluconate is often considered in topical exposures to hydrofluoric acid and may be appropriate for severe exposures to fluorosilicates.*

## REACTIVITY DATA

Stability: Stable

Incompatibility (materials to avoid): Compatible with most materials. Dissolves in strong acid or base.

Hazardous decomposition products: Fluoride and NO<sub>x</sub>.

-2-(SIA0705.0)

## SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV air-supplied or acid gas respirator.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

## OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Store in sealed containers.

## TRANSPORTATION

DOT SHIPPING NAME: AMMONIUM FLUOROSILICATE

DOT HAZARD CLASS: 6.1

DOT LABEL: TOXIC

DOT ID No: UN 2854

PG: III

Prepared by safety and environmental affairs

ISSUE DATE SIA0705.0: 5/6/03

SUPERSEDES: 1/16/98

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