

**GELEST, INC.**

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MATERIAL SAFETY  
DATA SHEET

EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300

NAME: **IRON II TRIS(1,10-PHENANTHROLINE)HEXAFLUOROPHOSPHATE - AKI-411**  
CHEMICAL NAME: IRON II TRIS(1,10-PHENANTHROLINE)HEXAFLUOROPHOSPHATE  
SYNONYMS: FERROUS (1,10-PHENANTHROLINE)HEXAFLUOROPHOSPHATE  
CHEMICAL FAMILY: IRON COMPOUND  
FORMULA: C<sub>36</sub>H<sub>24</sub>Fe.F<sub>12</sub>P<sub>2</sub>  
HMIS CODES HEALTH: 3 FLAMMABILITY: 1 REACTIVITY: 0

**INGREDIENTS**

IDENTITY	CAS NO.	%	TLV
IRON II TRIS(1,10-PHENANTHROLINE)HEXAFLUOROPHOSPHATE	17112-07-1	>95	not established (TLV 1mg/m <sup>3</sup> as Fe)

**PHYSICAL DATA**

Boiling Point: NA	Melting Point: NA
Specific Gravity: >1	Vapor Pressure, 20°C: < 0.1mm
Vapor Density: NA	Solubility in water: insoluble
% volatiles NA	Evaporation rate: NA
Molecular Weight: 888.41	Other: NA
Appearance & Color: Red-brown crystals, odorless	

**FIRE & EXPLOSION DATA**

Flash Point, COC: not determined      Autoignition Temp.: not determined  
Flammability Limits: not determined

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.  
Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.  
Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

-1-(AKI-411)

## ENVIRONMENTAL INFORMATION

Spill response: Sweep material and transfer to a suitable container for disposal.

Recommended Disposal: Dispose of as solid waste. Follow all chemical pollution control regulations.

## HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe eye irritation.

Skin contact: May produce mild irritation or contact dermatitis. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of dust or particulates may irritate the respiratory tract.

Oral Toxicity: not determined  
Chronic Toxicity: not determined

### 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. Administer oxygen if needed. Call a physician.

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

## REACTIVITY DATA

Stability: Stable

Conditions to avoid: Strong oxidizing agents

Hazardous decomposition products: Organic acid vapors and iron oxide fumes.

-2-(AKI-411)

## SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV, NIOSH approved dust and mist 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 use only.

Storage and Handling: Store in sealed containers.

## TRANSPORTATION

DOT SHIPPING NAME: CHEMICALS, NOI

DOT HAZARD CLASS: None required

DOT LABEL: None required

DOT ID No: None required

Prepared by safety and environmental affairs

ISSUE DATE AKI-411: 9/30/03

SUPERSEDES: none

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