

## MATERIAL SAFETY DATA SHEET

NFPA	HMIS	Personal Protective Equipment
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Health Hazard	1
Fire Hazard	1
Reactivity	0



See Section 8.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
<b>Product code:</b>	F1001
<b>Product Name:</b>	FERRIC AMMONIUM CITRATE, GREEN, POWDER, FCC
<b>Chemical Name:</b>	No information available
<b>Synonyms:</b>	Ammonium Ferric Citrate; Ammonium iron (III) citrate; Iron (III) ammonium citrate; 1,2,3-Propanetricarboxylic acid, 2-hydroxy, ammonium iron (3+) salt; Citric Acid, ammonium iron (3+) salt
<b>Recommended use:</b>	Pigment. In photography. For blueprints.
<b>CAS #:</b>	1185-57-5
<b>RTECS #</b>	GE7540000
<b>Formula:</b>	This compound is a complex salt of undetermined structure, composed of Iron, Ammonia, and Citric Acid
<b>CI#:</b>	Not available
<b>Supplier:</b>	Spectrum Chemicals and Laboratory Products, Inc. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000
<b>Order Online At:</b>	<a href="https://www.spectrumchemical.com">https://www.spectrumchemical.com</a>
<b>Emergency Telephone Number:</b>	CHEMTREC: 1-800-424-9300
<b>Contact Person:</b>	Ibad Tirmiz (East Coast)
<b>Contact Person:</b>	Martin LaBenz (West Coast)

## 2. HAZARDS IDENTIFICATION

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Irritating to eyes  
May cause skin irritation  
May cause irritation of respiratory tract

**Odor:**  
Odorless. Faint. Ammonia.

**Physical state:**  
Solid.

**Appearance:**  
Powder.

**Color:**  
Green.

### OSHA Regulatory Status

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 1910.1200)

### POTENTIAL HEALTH EFFECTS

#### Principal Routes of Exposure:

Ingestion. Inhalation.

#### Acute Potential Health Effects:

##### Skin Contact:

Mild skin irritation.

##### Eye Contact:

Causes eye irritation.

##### Inhalation:

May cause irritation of respiratory tract.

##### Ingestion:

Causes digestive (gastrointestinal) tract irritation. Irritating to mouth, throat and stomach. May cause hypermotility, diarrhea. May cause vomiting.

#### Chronic Potential Health Effects:

##### Component

Ferric Ammonium Citrate, green  
1185-57-5 (100)

##### Carcinogen Status:

No information available

#### Target Organs:

Eyes. Skin. Respiratory system. Gastrointestinal tract. Liver.

#### Mutagenic Effects:

No information available

#### Teratogenic Effects:

No information available

**Aggravated Medical Conditions:** No information available

See Section 11 for additional Toxicological Information

### POTENTIAL ENVIRONMENTAL EFFECTS

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
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Product code: F1001

Product name: FERRIC AMMONIUM  
CITRATE, GREEN, POWDER, FCC

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ferric Ammonium Citrate, green	1185-57-5	100
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### 4. FIRST AID MEASURES

<b>General Advice:</b>	Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126)
<b>Skin Contact:</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops. Consult a physician if necessary.
<b>Eye Contact:</b>	Flush eye with water for 15 minutes. Get medical attention.
<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.
<b>Notes to Physician:</b>	Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

#### Flammable Properties

<b>Flashpoint (°C/°F):</b>	No information available.
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<b>Flash Point Tested according to:</b> Not available
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<b>Lower Explosion Limit (%):</b>	No information available
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<b>Upper Explosion Limit (%):</b>	No information available
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<b>Autoignition Temperature (°C/°F):</b>	No information available
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<b>Suitable Extinguishing Media:</b>	Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Water spray mist or foam.
<b>Unsuitable Extinguishing Media:</b>	No information available.
<b>Hazardous Combustion Products:</b>	Carbon monoxide; Carbon dioxide; iron oxides; ammonia; nitrogen oxides
<b>Specific hazards:</b>	May be combustible at high temperatures. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
<b>Special Protective Equipment for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
<b>Specific Methods:</b>	No information available.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions:

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

### Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods for Cleaning Up:

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

## 7. HANDLING AND STORAGE

### Handling

#### Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

#### Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Avoid dust formation. Do not ingest. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

### Storage

#### Technical Measures/Storage Conditions:

Deliquescent. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Protect from light. Sensitive to light. Store in light-resistant containers. Store at room temperature in the original container. Store away from incompatible materials.

#### Incompatible Materials:

Strong oxidizing agents. iodides. tannins. acacia preparations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 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.

### Personal Protective Equipment

<b>Eye protection:</b>	Goggles. Safety glasses with side-shields.
<b>Skin and body protection:</b>	Long sleeved clothing. Chemical resistant apron. Gloves.
<b>Respiratory protection:</b>	Effective dust mask. Wear respirator with dust filter..
<b>Hygiene measures:</b>	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

### National occupational exposure limits

**United States**

U.S Occupational Exposure Limits: Not determined

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Ferric Ammonium Citrate, green - 1185-57-5	None	None	None	None

**Canada**

Canada Occupational Exposure Limits: Not determined

Components	Alberta	British Columbia	Ontario	Quebec
Ferric Ammonium Citrate, green 1185-57-5	None	None	None	None

**Australia and Mexico**

Occupational Exposure Limits for Australia and Mexico: Not determined

Components	Australia	Mexico
Ferric Ammonium Citrate, green 1185-57-5	None	None

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical state:**

Solid.

**Appearance:**

Powder.

**Color:**

Green.

**Odor:**

Odorless. Faint. Ammonia.

**Taste**

Saline. Mild ferruginous.

**Molecular/Formula weight:**

No information available

**Flash point (°C):**

No data available

**Lower Explosion Limit (%):**

No information available

**Upper Explosion Limit (%):**

No information available

**Autoignition Temperature (°C/°F):**

No information available

**Melting point/range(°C/°F):**

No information available

**Boiling point/range(°C/°F):**

No information available

**pH:**

No information available

**Specific gravity:**

1.8

**Density (g/cm<sup>3</sup>):**

No information available

**Decomposition temperature(°C/°F):**

No information available

**Bulk density:**

No information available

**Vapor pressure @ 20°C (kPa):**

No information available

**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

**Miscibility:**

No information available

**Solubility:**

Easily soluble in water

Practically insoluble in alcohol

Solubility in water: 25 g/100 ml @ 20

deg. C.

**10. STABILITY AND REACTIVITY****Stability:**

Stable at normal conditions

<b>Conditions to avoid:</b>	Heat. Exposure to light. Exposure to moist air. Exposure to moisture. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
<b>Incompatible Materials:</b>	Strong oxidizing agents. iodides. tannins. acacia preparations.
<b>Hazardous decomposition products:</b>	Carbon monoxide. Carbon dioxide. iron oxides. Ammonia. Nitrogen oxides (NOx).
<b>Possibility of Hazardous Reactions:</b>	No information available
<b>Polymerization:</b>	Hazardous polymerisation does not occur
<b>Corrosivity:</b>	No information available
<b>Special Remarks on Corrosivity:</b>	No information available

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

*Ferric Ammonium Citrate, green - 1185-57-5*

**LD50/oral/rat** = LD (Lethal Dose): >2000 mg/kg

**LD50/oral/mouse** = No information available

**LD50/dermal/rat** = No information available

**LD50/dermal/rabbit** = 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

**LC50/inhalation/rat** No information available

**LC50/Inhalation/mouse** No information available

**LD50/dermal/rabbit** No information available

**LD50/dermal/rat** No information available

**LD50/oral/mouse** = No information available

**LD50/oral/rat** = No information available

#### Local Effects

**Skin irritation:** Mild skin irritation.

**Eye irritation:** Causes eye irritation.

**Inhalation:** May cause irritation of respiratory tract. Symptoms may include coughing and wheezing, and shortness of breath.

**Ingestion:** Irritating to mouth, throat and stomach. May cause vomiting. May cause hypermotility, diarrhea.

**Sensitization:** No information available

### Chronic Toxicity

**Chronic Toxicity** Prolonged eye contact may cause a brownish discoloration of the eyes.

**Carcinogenic effects:** Not considered carcinogenic

Components	NTP	IARC	OSHA HCS - Carcinogens	ACGIH - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Ferric Ammonium Citrate, green	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects:** No information available

**Reproductive Effects:** No information available

**Teratogenic Effects:** No information available

**Target Organs:** Eyes. Skin. Respiratory system. Gastrointestinal tract. Liver.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

**Toxicity to terrestrial and aquatic plants and animals:** No information available

**Ecotoxicity effects:** No data available.

**Aquatic toxicity:** No information available

**Mobility:** No information available

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

## 13. DISPOSAL CONSIDERATIONS

### 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

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ferric Ammonium Citrate, green	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** None  
**Subsidiary Risk:** Not applicable  
**Marine Pollutant:** No data available  
**ERG No:** No information available  
**DOT RQ (lbs):** No information available

### TDG (Canada)

**Product code:** F1001

**Product name:** FERRIC AMMONIUM  
CITRATE, GREEN, POWDER, FCC

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**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Description:** No information available

#### ADR

**UN-No:** No information available  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** No information available

#### IMO / IMDG

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant** No information available  
**MFAG:** No information available  
**Maximum Quantity:** No information available

#### RID

**UN-No:** No information available  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available

#### ICAO

**UN-No:** No information available  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Description:** No information available

#### IATA

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Description:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

**Product code:** F1001

**Product name:** FERRIC AMMONIUM  
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Components	U.S. TSCA	Philippines (PICCS)	KOREA KECL	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Ferric Ammonium Citrate, green</i>	Present	Present	Present KE-01694	Present (2)-895 (2)-1318	Present [26079]	Present	Present 214-686-6

## U.S. Regulations

*Ferric Ammonium Citrate, green*

**Massachusetts RTK:** Present

**New Jersey RTK Hazardous Substance List:** Present

**New Jersey - Discharge Prevention - List of Hazardous Substances:** Present

**Pennsylvania RTK:** Environmental hazard

**Pennsylvania RTK - Environmental Hazard List** Present

**Pennsylvania RTK - Special Hazardous Substances** Present

**New York Release Reporting - List of Hazardous Substances:**

= 100 lb RQ

= 1000 lb RQ

**Louisiana Reportable Quantity List for Pollutants:** Listed

**California Directors List of Hazardous Substances:** Present

## 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)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Ferric Ammonium Citrate, green</i>	Not Listed	Not Listed	Not Listed	Not Listed

## CERCLA/SARA

Components	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 <i>de minimis</i>
<i>Ferric Ammonium Citrate, green</i>	= 1000 lb final RQ	None	None	None	None

## U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Ferric Ammonium Citrate, green</i>	Not Applicable	Not Applicable

## Canada

### WHMIS hazard class:

Non-controlled

### **Ferric Ammonium Citrate, green**

Uncontrolled product according to WHMIS classification criteria

### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

## Inventory

**Product code:** F1001

**Product name:** FERRIC AMMONIUM CITRATE, GREEN, POWDER, FCC

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**Ferric Ammonium Citrate, green**

Components	Canada (DSL)	Canada (NDSL)
Ferric Ammonium Citrate, green	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Ferric Ammonium Citrate, green	Not listed	Not listed

**EU Classification**

**R-phrase(s)**

not determined

**S -phrase(s)**

none

Components	Classification	Concentration Limits:	Safety Phrases
Ferric Ammonium Citrate, green		No information	

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

**Indication of danger:**

Not dangerous

**16. OTHER INFORMATION**

The MSDS format complies with ANSI Z400.1/Z129.1-2010 standards.

**Preparation Date:** 12-Dec-2014  
**Reason for revision:** Not applicable  
**Prepared by:** Sonia Owen  
**Literature reference:** No information available

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) 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 MSDS. The physical properties reported in this MSDS 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 MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.