



SDS

SAFETY DATA SHEET

RUPERT, GIBBON & SPIDER PO BOX 425, HEALDSBURG CA, 95448 TEL: (707) 433-9577 FAX: (707) 433-4906

Date 9/12/17

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ferric Ammonium Citrate

Synonyms/Generic Names: Ammonium Ferric Citrate; Ammonium iron (III) citrate; Iron (III) ammonium citrate; 1,2,3-Propanetricarboxylic acid, 2-hydroxy, ammonium iron (3+)salt

Product Number: CHM1102, CHM2102, JCY1100

Product Use: Creating Cyanotype Prints

MANUFACTURED BY

Rupert, Gibbon & Spider, Inc.
1147 Healdsburg Ave. CA, 95448
800-442-0455

EMERGENCY PHONE NUMBER

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300
International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 800-442-0455

2. HAZARDS IDENTIFICATION

OSHA Hazards: Irritant

Target Organs: None Known

Signal Words: Warning

Pictograms:



GHS Classification:

Skin irritation	Category 2
Eye irritation	Category 2A
Specific target organ toxicity – single exposure	Category 3



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GHS Label Elements, including precautionary statements:

Hazard Statements-EU:

H315	Causes skin irritation.
H219	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary Statements-EU:

P261	Avoid breathing dust.
P264	Wash hands thoroughly after handling.
P271	Use in a well-ventilated area.
P280	Wear protective gloves/eye protection.



P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	Causes skin irritation.
Ingestion	May be harmful if swallowed.

NFPA Ratings

Health	1
Flammability	0
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	1
Fire	0
Reactivity	0
Personal	Not Available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Ferric Ammonium Citrate	>99	1185-57-5	214-686-6	$C_6H_8O_7 \cdot xFe_3 \cdot yNH_3$	N/A

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.



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Specific hazards arising from the chemical

Emits toxic fumes (carbon oxides, nitrogen oxides, iron oxides) under fire conditions. (See also Stability and Reactivity section).



6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Light sensitive. Hygroscopic.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Ferric Ammonium Citrate	1 mg/m ³	TLV	ACGIH
	1 mg/m ³	PEL	OSHA
	1 mg/m ³	REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses with side shields or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Green, red, or brownish-yellow powder, granules, or flakes.
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Odor	Odorless.
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Flammable
Vapor pressure	Not Available
Vapor density	Not Available
Relative Density	Not Available
Solubility (ies)	Easily soluble in water. 25 g/100 ml at 20°C.
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Decomposes on exposure to light. Stable under recommended storage conditions.
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Light and heat.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon oxides, nitrogen oxides, iron oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral – rat - >2,000 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.



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Signs & Symptoms of Exposure

Skin	Contact may cause irritation or rash, particularly with moist skin.
Eyes	May cause eye irritation with redness, tearing, and abrasion.
Respiratory	Irritation, coughing, wheezing.
Ingestion	Irritation, nausea, vomiting, diarrhea, hypermotility.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available



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Specific Target Organ Toxicity	May cause respiratory irritation.
Reproductive Toxicity	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC0 - Fundulus heteroclitus - 200 mg/l - 7 d
Aquatic Invertebrate	Not Available
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IMDG	Not Dangerous Goods
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Acute Health Hazard
SARA 312	Acute Health Hazard
SARA 313	Not Listed



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WHMIS Canada	Not Listed
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16. OTHER INFORMATION

Disclaimer

The information contained in this SDS is based on data from sources considered to be reliable but Rupert, Gibbon & Spider, Inc. does not guarantee the accuracy or completeness thereof. Rupert, Gibbon & Spider, Inc. urges each customer or recipient of this SDS to study it carefully to become aware of and understand the hazards associated with this product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology or fire and understand the data in this SDS.