

SAFETY DATA SHEET (SDS)

01321-1050



Jacquard Products
Manufactured by Rupert, Gibbon & Spider, Inc.
P.O. Box 425 | Healdsburg, CA 95448
800.442.0455 | Fax: 707.433.4906
www.jacquardproducts.com

Revision Date: 06/25/2018

This SDS Sheet covers the following Jacquard products:

Item Number:	Item Name:
JCY1100	Cyanotype Set

These products contain the following components:

Item Number:	Item Name:	SDS Page Reference:
CHM0101 / CHM1101 / CHM2101	Potassium Ferricyanide	Potassium Ferricyanide Pages 1-9
CHM1102 / CHM2102	Ferric Ammonium Citrate	Ferric Ammonium Citrate Pages 1-9

SAFETY DATA SHEET (SDS)



Jacquard Products
 Manufactured by Rupert, Gibbon & Spider, Inc.
 P.O. Box 425 | Healdsburg, CA 95448
 800.442.0455 | Fax: 707.433.4906
 www.jacquardproducts.com

Potassium Ferricyanide - Pg 1

Revision Date: 06/25/2018

SECTION I - CHEMICAL, PRODUCT & COMPANY INFORMATION

Product Name:	POTASSIUM FERRICYANIDE	
Product Number/Code:	CHM0101, CHM1101, CHM2101, JCY1100	
Recommended Use:	Creating cyanotype prints	
Synonym(s):	Potassium hexacyanoferrate (III)	
Restrictions on use:	None known	
Manufacturer:	Rupert, Gibbon & Spider, Inc. 1147 Healdsburg Ave. Healdsburg, CA 95448 1-800-442-0455 / 707-433-9577	
Emergency Number:	ChemTel, Inc. - Contract #MIS9128344	
	North America: 1-800-255-3924	International: 1-813-248-0585

SECTION 2 - HAZARD(S) IDENTIFICATION

This product is not considered to be or contain hazardous chemicals based on evaluations made by our company under the OSHA Hazard Communication Standard, reference 29 CFR 1910.1200.	
Toxicological Data on Ingredients:	
Hazard Classification	Not hazardous
Physical Hazards:	Not classified
Health Hazards:	Not classified
Environmental Hazards:	Not classified
Label Elements	
Pictogram:	None
Signal Words:	None
Hazard Statements-EU:	The mixture does not meet the criteria for classification.
Precautionary Statements-EU:	
Prevention:	See section 8
Response:	See sections 4, 5 & 6
Storage:	See section 7
Disposal:	See section 13
Hazard(s) not otherwise classified:	R32: Contact with acids liberates very toxic gas.

SAFETY DATA SHEET (SDS)

Potassium Ferricyanide - Pg 2

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical identity	Content in percent (%)*	CAS #	EC #
Potassium hexacyanoferrate(III)	100.0%	13746-66-2	237-323-33

SECTION 4 - FIRST AID MEASURES

Description of first aid measures:	
In the event of skin contact:	Immediately wash with soap and water; rinse thoroughly. Seek immediate medical advice.
In the event of eye contact:	Rinse opened eye for several minutes under running water. Consult a physician.
In the event of swallowing:	Seek medical treatment.
In the event of exposure by inhalation:	Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm. Seek immediate medical advice.
Most important symptoms and effects, acute and delayed:	No data available
Indication of any immediate medical attention and special treatment needed:	No data available

SECTION 5 - FIREFIGHTING MEASURES

Extinguishing media:	Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture:	If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide, Nitrogen oxides (NO _x), Hydrogen cyanide (HCN), Metal oxide fume
Advice for fire fighters:	Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Mount respiratory protective device. Use personal protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
Methods and material for containment and clean up:	Pick up mechanically.
Prevention of secondary hazards:	No special measures required.
Environmental procedures:	Do not allow material to be released to the environment without official permits. Do not allow product to enter drains, sewage systems, or other water courses. Do not allow material to penetrate the ground or soil.
Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SAFETY DATA SHEET (SDS)

Potassium Ferricyanide - Pg 3

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling:	Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace.
Information about protection against explosions and fires:	No data available
Conditions for safe storage including any incompatibilities:	
Requirements to be met by storerooms and receptacles:	No special requirements
Information about storage in one common storage facility:	Store away from oxidizing agents. Do not store together with acids. Store in the dark.
Further information about storage conditions:	Keep container tightly sealed. Store in cool, dry conditions in well-sealed containers. Protect from exposure to light.
Specific end use(s):	No data available

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:	
Components with limit values that require monitoring in the workplace:	13746-66-2 Potassium hexacyanoferrate(III) 100.0%
Occupational exposure limits:	PEL (USA) Long-term value: 5 mg/m ³ as CN; Skin
	REL (USA) Long-term value: 1 mg/m ³ as Fe
	TLV (USA) Long-term value: 1 mg/m ³ as Fe
	Additional information: No data
Exposure controls:	Follow typical protective and hygienic practices for handling chemicals. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Maintain an ergonomically appropriate working environment.
Individual protection measures, such as personal protective equipment:	
Eye/face protection:	Safety glasses
Skin protection:	Protective work clothing
Hand protection:	Impervious gloves. Inspect gloves prior to use. Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer. Penetration time of glove material (in minutes): No data available.
Other protective equipment:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Respiratory protection:	Use suitable respirator when high concentrations are present.

SAFETY DATA SHEET (SDS)

Potassium Ferricyanide - Pg 4

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

General information:	
Appearance and physical state:	Crystalline
Color:	Orange
Type of Odor:	No data available
Odor threshold:	No data available
Important health, safety and environmental information:	
Initial Boiling Point and Boiling Range:	No data available
Melting Point/Freezing Point:	Decomposes
Flammability Classification:	No data available
Sublimation temperature/start:	No data available
Flash Point:	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
Flammability Limits (lower/upper):	No data available
Evaporation rate:	N/A
Vapor Pressure:	N/A
Vapor Density (Air=1):	N/A
Octanol/Water Partition Coefficient (log Pow):	No data available
Specific Gravity:	N/A
Bulk Density:	N/A
Water Solubility:	20°C/68°F: 464 g/l
pH:	N/A
Viscosity:	N/A
Explosive Properties:	Product does not present an explosion hazard.
Oxidizing Properties:	N/A
Molecular Formula:	N/A
Molecular Weight:	N/A
Relative Density:	N/A

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	Contact with acids liberates very toxic gas.
Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Contact with acids liberates very toxic gas.
Conditions to avoid:	No data available
Incompatible materials:	Oxidizing agents, acids, light
Thermal decomposition/conditions to be avoided:	Decomposition will not occur if used and stored according to specifications.
Hazardous decomposition products:	Carbon monoxide, Carbon dioxide, Hydrogen cyanide, Metal oxide fume, Nitrogen oxides

SAFETY DATA SHEET (SDS)

Potassium Ferricyanide - Pg 5

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION II - TOXICOLOGICAL INFORMATION

Information on toxicological effects:	
Acute toxicity (list all possible routes of exposure)	
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product. LD/LC50 values that are relevant for classification:	
Acute Oral Toxicity:	LD50 2,970 mg/kg (mouse)
Acute Dermal Toxicity:	No data available
Acute Inhalation Toxicity:	No data available
Skin Corrosion/Irritation:	May cause irritation.
Serious Eye Damage / Eye Irritation:	May cause irritation.
Respiratory or Skin Sensitization:	No sensitizing effects known.
Germ Cell Mutagenicity:	The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.
Carcinogenicity:	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive Toxicity:	No effects known.
Specific Target Organ Toxicity - single exposure (STOT-se):	No effects known.
Specific Target Organ Toxicity - repeated exposure (STOT-re):	No effects known.
Aspiration Hazard:	No effects known.
Sub-acute to chronic toxicity:	No effects known.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
Potential Health Effects:	
Skin Contact:	No effects known.
Eye Contact:	No effects known.
Ingestion:	No effects known.
Inhalation:	No effects known.
Chronic Health Effects:	No effects known.
Additional Data:	No effects known.

SAFETY DATA SHEET (SDS)

Potassium Ferricyanide - Pg 6

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity:	
Acute/prolonged toxicity to fish:	No data available
Acute/prolonged toxicity to aquatic invertebrates:	No data available
Acute/prolonged toxicity to aquatic plants:	No data available
Toxicity to bacteria, to soil dwelling organisms and to terrestrial plants:	No data available
Chronic toxicity to aquatic organisms:	No data available
General effect:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available
Mobility in soil:	No data available
Results of PBT and vPvB assessment (EC reg. 453/2010):	N/A
Other adverse effects:	No data available
Additional ecological information:	Do not allow product to reach groundwater, water courses or sewage systems. Do not allow material to be released to the environment without official permits. Danger to drinking water if even small quantities leak into the ground. Avoid transfer into the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods:	
Disposal:	Consult official regulations to ensure proper disposal.
Container Disposal:	Disposal must be made according to official regulations.

SECTION 14 - TRANSPORT INFORMATION

General Information:	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).
UN number:	Not relevant
UN proper shipping name:	Not relevant
Transport hazard class:	Not relevant
Packing group:	Not relevant
Environmental Hazards:	
Environmentally hazardous substance:	No
Special precautions for user:	Not relevant

SAFETY DATA SHEET (SDS)

Potassium Ferricyanide - Pg 7

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:	
Hazard categories	
U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory:	All components of this product are listed.
Canadian Domestic Substances List (DSL):	All components of this product are listed.
SARA Section 313 (specific toxic chemical listings):	Substance is not listed.
Prop 65 - Chemicals known to cause cancer:	Substance is not listed.
Other regulations, limitations and prohibitive regulations:	
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006:	Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.	Substance is not listed.
Annex XIV of the REACH Regulations (requiring authorization for use):	Substance is not listed.
REACH - Pre-registered substances:	Substance is listed.
Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

SECTION 16 - OTHER INFORMATION

HMIS Hazard ID:	
Health:	I
Flammability:	I
Reactivity:	I
Health (acute effects):	I
Physical Hazard:	I
Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect	

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.

Revision Date: 06/25/2018

SAFETY DATA SHEET (SDS)

Potassium Ferricyanide - Pg 8

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

National Chemical Inventories:

All components of this product are listed on the following chemical substance inventories: TSCA (USA)

DSL	(Canada)
EINECS	(Europe)
ENCS	(Japan) ECL
	(Korea)
AICS	(Australia) NZIoC
	(New Zealand)
PICCS	(Philippines)
IECSC	(China)

SAFETY DATA SHEET (SDS)

Potassium Ferricyanide - Pg 9

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

Abbreviations:	
ACGIH	American Conference of Governmental Industrial Hygienists
ADR	International carriage of Dangerous goods by Road
AICS	Australian Inventory of Chemical Substances
ATE	Acute Toxicity Estimate
BfR	Bundesinstitut für Risikobewertung recommendations for food contact materials
BCF	Bioconcentration Factor
BOD5	5-day Biochemical Oxygen Demand
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CLP	Classification, Labeling and Packaging regulation
COD	Chemical Oxygen Demand DOT Department of Transportation DSL Domestic Substances List
EINECS	European Inventory of Existing Chemical Substances
ECL	Existing Chemicals List (Korea)
ENCS	Existing and New Chemical Substances Inventory (Japan)
EN 689	Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy.
ERG	Emergency Response Guide
GHS	Globally Harmonized System
HMIS	Hazardous Materials Information System IARC International Agency for Research on Cancer IATA International Air Transport Association
ICAO	International Civil Aviation Organization IDLH Immediately Dangerous to Life and Health IMDG International Maritime Dangerous Goods
LD50	Lethal Dose to 50% of test animal population
MAK	Maximale Arbeitsplatz Konzentration
NTP	National Toxicology Program
OEL	Occupational Exposure Limit
OSHA	Occupational Safety & Health Administration
PBT	Persistent, Bioaccumulative and Toxic vPvB Very Persistent and Very Bioaccumulative PEL Permissible exposure limit
PICCS	Philippine Inventory of Commercial Chemical Substances
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemical Substances
RID	International carriage of dangerous goods by Rail SARA Superfund Amendments and Reauthorization Act STEL Short Term Exposure Limit
SVHC	Substance of Very High Concern
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
VOC	Volatile Organic Compound
WGK	Wassergefährdungsklasse (Water Hazard Class) WHMIS Workplace Hazardous Material Identification System

SAFETY DATA SHEET (SDS)



Jacquard Products
 Manufactured by Rupert, Gibbon & Spider, Inc.
 P.O. Box 425 | Healdsburg, CA 95448
 800.442.0455 | Fax: 707.433.4906
 www.jacquardproducts.com

Ferric Ammonium Citrate - Pg 1

Revision Date: 02/07/2018

SECTION I - CHEMICAL, PRODUCT & COMPANY INFORMATION

Product Name:	FERRIC AMMONIUM CITRATE	
Product Number/Code:	CHM1102, CHM2102, JCY1100	
Recommended Use:	Creating Cyanotype Prints	
Synonym(s):	Ammonium Ferric Citrate; Ammonium iron (III) citrate; Iron (III) ammonium citrate; 1,2,3-Propanetricarboxylic acid, 2-hydroxy, ammonium iron (3+) salt	
Restrictions on use:	None known.	
Manufacturer:	Rupert, Gibbon & Spider, Inc. 1147 Healdsburg Ave. Healdsburg, CA 95448 1-800-442-0455 / 707-433-9577	
Emergency Number:	ChemTel, Inc. - Contract #MIS9128344	
	North America: 1-800-255-3924	International: 1-813-248-0585

SECTION 2 - HAZARD(S) IDENTIFICATION

Toxicological Data on Ingredients:		
Hazard Classification		
Physical Hazards:	Skin Irritation	Category 2
	Eye Irritation	Category 2A
Health Hazards:	Specific Target Organ Toxicity - single exposure	Category 3
Label Elements		
Pictogram:		
Signal Words:	Warning	
Hazard Statements-EU:	H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.	

SAFETY DATA SHEET (SDS)

Ferric Ammonium Citrate - Pg 2

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

Precautionary Statements-EU:	
Prevention:	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:	P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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. P337+P313 If eye irritation persists: Get medical advice/attention. P312 Call a POISON CENTER/doctor/physician if you feel unwell. P321 Specific treatment (see warning on this label). P332+P313 If SKIN irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362 Take off contaminated clothing and wash it before reuse.
Storage:	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
Disposal:	P501 Dispose of contents/container in accordance with local regulations.
Hazard(s) not otherwise classified:	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.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical identity	Content in percent (%)*	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

SECTION 4 - FIRST AID MEASURES

Description of first aid measures:	
In the event of skin contact:	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
In the event of eye contact:	Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.
In the event of swallowing:	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.
In the event of exposure by 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.

SAFETY DATA SHEET (SDS)

Ferric Ammonium Citrate - Pg 3

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 5 - FIREFIGHTING MEASURES

Extinguishing media:	Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.
Special hazards arising from the substance or mixture :	Emits toxic fumes (carbon oxides, nitrogen oxides, iron oxides) under fire conditions. (See also Stability and Reactivity section 10).
Advice for fire fighters:	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	See section 8 for recommendations on the use of personal protective equipment.
Methods and material for containment and clean 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.
Environmental procedures:	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

SECTION 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.

SAFETY DATA SHEET (SDS)

Ferric Ammonium Citrate - Pg 4

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:			
Occupational exposure limits:			
Component	Exposure Limits	Basis	Identity
Ferric Ammonium Citrate	1 mg/m ³	TLV	ACGIH
	1 mg/m ³	PEL	OSHA
	1 mg/m ³	REL	NIOSH
TWA: TLV: REL: PEL: STEL: IDLH: WEEL: CEIL:	Time Weighted Average over 8 hours of work. Threshold Limit Value over 8 hours of work. Recommended Exposure Limit Permissible Exposure Limit Short Term Exposure Limit during x minutes. Immediately Dangerous to Life or Health. Workplace Environmental Exposure Levels Ceiling		
Individual protection measures, such as personal protective equipment:			
Eye/face protection:		Wear chemical safety glasses with side shields or goggles.	
Skin/hand protection:		Wear nitrile or rubber gloves, apron or lab coat.	
Other protective equipment:		Not available	
Environmental exposure controls:		---	
Respiratory protection:		Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.	
Other Recommendations:		Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.	

SAFETY DATA SHEET (SDS)

Ferric Ammonium Citrate - Pg 5

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

General information:	
Appearance and physical state:	Powder, granules or flakes
Color:	Green, red or brownish-yellow
Type of Odor:	Odorless
Odor threshold:	Not available
Important health, safety and environmental information:	
Initial Boiling Point and Boiling Range:	Not available
Melting Point/Freezing Point:	Not available
Flammability Classification:	Not flammable
Flash Point:	Not flammable
Auto-ignition Temperature:	Not available
Decomposition Temperature:	Not available
Flammability Limits (lower/upper):	Not flammable
Evaporation rate:	Not available
Vapor Pressure:	Not available
Vapor Density (Air=1):	Not available
Evaporation Rate (BuAc=1):	Not available
Octanol/Water Partition Coefficient (log Pow):	Not available
Specific Gravity:	Not available
Bulk Density:	Not available
Water Solubility:	Easily soluble in water. 25 g/100 ml at 20°C.
pH:	Not available
Viscosity:	Not available
Explosive Properties:	Not available
Oxidizing Properties:	Not available
Molecular Formula:	Not available
Molecular Weight:	Not available
Relative Density:	Not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	Not available
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

SAFETY DATA SHEET (SDS)

Ferric Ammonium Citrate - Pg 6

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects:	
Acute toxicity (list all possible routes of exposure)	
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.
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
Specific Target Organ Toxicity:	May cause respiratory irritation,
Reproductive Toxicity:	Not available

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity:	
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

SAFETY DATA SHEET (SDS)

Ferric Ammonium Citrate - Pg 7

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods:	
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.	

SECTION 14 - TRANSPORT INFORMATION

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

SECTION 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
WHMIS Canada	Not Listed

SECTION 16 - OTHER INFORMATION

HMIS Hazard ID:	
Health:	1
Flammability:	0
Reactivity:	0
Personal:	Not available
Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect	

SAFETY DATA SHEET (SDS)

Ferric Ammonium Citrate - Pg 8

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

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.

Revision Date: 02/07/2018

National Chemical Inventories:	
All components of this product are listed on the following chemical substance inventories: TSCA (USA)	
DSL	(Canada)
EINECS	(Europe)
ENCS	(Japan) ECL
	(Korea)
AICS	(Australia) NZIoC
	(New Zealand)
PICCS	(Philippines)
IECSC	(China)

SAFETY DATA SHEET (SDS)

Ferric Ammonium Citrate - Pg 9

Rupert, Gibbon & Spider, Inc. | P.O. Box 425 | Healdsburg, CA 95448 | 800.442.0455 | Fax: 707.433.4906 | www.jacquardproducts.com

Abbreviations:	
ACGIH	American Conference of Governmental Industrial Hygienists
ADR	International carriage of Dangerous goods by Road
AICS	Australian Inventory of Chemical Substances
ATE	Acute Toxicity Estimate
BfR	Bundesinstitut für Risikobewertung recommendations for food contact materials
BCF	Bioconcentration Factor
BOD5	5-day Biochemical Oxygen Demand
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CLP	Classification, Labeling and Packaging regulation
COD	Chemical Oxygen Demand DOT Department of Transportation DSL Domestic Substances List
EINECS	European Inventory of Existing Chemical Substances
ECL	Existing Chemicals List (Korea)
ENCS	Existing and New Chemical Substances Inventory (Japan)
EN 689	Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy.
ERG	Emergency Response Guide
GHS	Globally Harmonized System
HMIS	Hazardous Materials Information System IARC International Agency for Research on Cancer IATA International Air Transport Association
ICAO	International Civil Aviation Organization IDLH Immediately Dangerous to Life and Health IMDG International Maritime Dangerous Goods
LD50	Lethal Dose to 50% of test animal population
MAK	Maximale Arbeitsplatz Konzentration
NTP	National Toxicology Program
OEL	Occupational Exposure Limit
OSHA	Occupational Safety & Health Administration
PBT	Persistent, Bioaccumulative and Toxic vPvB Very Persistent and Very Bioaccumulative PEL Permissible exposure limit
PICCS	Philippine Inventory of Commercial Chemical Substances
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemical Substances
RID	International carriage of dangerous goods by Rail SARA Superfund Amendments and Reauthorization Act STEL Short Term Exposure Limit
SVHC	Substance of Very High Concern
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
VOC	Volatile Organic Compound
WGK	Wassergefährdungsklasse (Water Hazard Class) WHMIS Workplace Hazardous Material Identification System