

# 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

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**Revision Date: 02/05/2018**

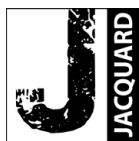
This SDS Sheet covers the following Jacquard products:

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

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Potassium Ferricyanide - Pg 1

Revision Date: 02/13/2018

## SECTION 1 - CHEMICAL, PRODUCT & COMPANY INFORMATION

Product Name:	<b>POTASSIUM FERRICYANIDE</b>	
Product Number/Code:	<b>CHM0101, CHM1101, CHM2101, JCY1100</b>	
Recommended Use:	Creating Cyanotype Prints	
Synonym(s)/Generic Name(s):	Potassium hexacyanoferrate(III), Red prussiate	
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:	<b>ChemTel, Inc. - Contract #MIS9128344</b>	
	North America: <b>1-800-255-3924</b>	International: <b>1-813-248-0585</b>

## SECTION 2 - HAZARD(S) IDENTIFICATION

<b>Classification of the substance or mixture:</b>	
Hazard Classification	Not a hazardous substance or mixture.
<b>GHS Label Elements, including precautionary statements:</b>	Not a hazardous substance or mixture.
Pictogram:	None.
Signal Word:	None.
<b>Hazards not otherwise classified (HNOC) or not covered by GHS:</b>	Contact with acids liberates very toxic gas.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<b>Substances</b>	
Synonyms:	Red prussiate, Potassium ferricyanide, Potassium hexacyanoferrate(III)
Formula:	$C_6FeK_3N_6$
Molecular weight:	329.24 g/mol
CAS-No:	13746-66-2
EC-No.:	237-323-3
<b>Hazardous components</b>	
Component:	Tripotassium hexacyanoferrate
Concentration:	<=100%

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## SECTION 4 - FIRST AID MEASURES

<b>Description of first aid measures:</b>	
General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact:	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact:	Flush eyes with water as a precaution.
If swallowed:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11.
Indication of immediate medical attention and special treatment needed:	No data available.

## SECTION 5 - FIREFIGHTING MEASURES

<b>Extinguishing media:</b>	
Suitable extinguishing media:	Dry powder.
Specific hazards arising from the chemical:	No data available.
Advice for firefighters:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information:	No data available.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid breathing dust. For personal protection see section 8.
Environmental precautions:	Do not let product enter drains.
Methods and materials for containment and clean up:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.
Reference to other sections:	For disposal see section 13.

## SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling:	Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.  Provide appropriate exhaust ventilation at places where dust is formed.  For precautions see section 2.
Conditions for safe storage, including any incompatibilities:	Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids.
Specific end use(s):	Apart from the uses mentioned in section 1 no other specific uses are stipulated.

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## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Control parameters:</b>				
Component	CAS-No.	Value	Control parameters	Basis
Tripotassium hexacyanoferrate	13746-66-2	C	5.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
Remarks		Upper Respiratory Tract irritation Headache Nausea Thyroid effects Danger of cutaneous absorption varies		
		C	5.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Headache Nausea Thyroid effects Danger of cutaneous absorption varies		
		TWA	1.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Skin irritation varies		
		C	4.700000 ppm 5.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		10 minute ceiling value		
		TWA	1.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		CAS number varies with compound Skin designation		
		C	5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Headache Nausea Thyroid effects Danger of cutaneous absorption varies		
		TWA	1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Skin irritation varies		
		C	4.7 ppm 5 mg/m3	USA. NIOSH Recommended Exposure Limits
		10 minute ceiling value		
		TWA	1 mg/m3	USA. NIOSH Recommended Exposure Limits
		PEL	1 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

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## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT'D)

Appropriate engineering controls:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Personal protective equipment</b>	
Eye/face protection:	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Full contact:	Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)
Splash contact:	Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)
Data source:	KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374  If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.
Body protection:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection:	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure:	Do not let product enter drains.

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Important health, safety and environmental information:</b>	
Appearance and physical state:	Crystalline/Powder
Odor:	No data available.
Odor threshold:	No data available.
pH:	6.0 - 9 at 329 g/l at 25 °C (77 °F)
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash point:	Not applicable.
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower flammability or explosive limits:	No data available.
Vapour pressure:	No data available.
Vapour density:	No data available.
Relative density:	1.890 g/cm <sup>3</sup>
Water solubility:	329 g/l at 20 °C (68 °F) - completely soluble
Partition coefficient: n-octanol/water:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

## SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	Contact with acids liberates very toxic gas.
Chemical stability:	May discolor on exposure to light. Stable under recommended storage conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	No data available.
Incompatible materials:	Strong acids, strong oxidizing agents, ammonia, hydrochloric acid, cyanides.
Hazardous decomposition products:	Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO <sub>x</sub> ), Potassium oxides, Iron oxides
Other decomposition products:	No data available.
In the event of fire:	See section 5.

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## SECTION 11 - TOXICOLOGICAL INFORMATION

<b>Information on toxicological effects:</b>	
Acute toxicity (list all possible routes of exposure)	
Oral:	Acute toxicity: LD50 Oral - Mouse - 2,970 mg/kg
Dermal:	No data available.
Inhalation:	No data available.
Repeated dose toxicity:	No data available.
Skin corrosion / irritation:	No data available.
Serious eye damage / eye irritation:	No data available.
Respiratory or skin sensitization:	No data available.
Germ cell mutagenicity:	No data available.
<b>Carcinogenicity:</b>	
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
US. National Toxicology Program (NTP) Report on Carcinogens	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity:	No data available.
Specific target organ toxicity - single exposure:	No data available.
Specific target organ toxicity - repeated exposure:	No data available.
Aspiration hazard:	No data available.
Other effects:	RTECS: LJ8225000  To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Ecotoxicity (Acute hazards to the aquatic environment):</b>	
Fish:	
Toxicity to fish:	LC50 - Oncorhynchus mykiss (rainbow trout) - 869 mg/l - 96 h
Aquatic invertebrates:	
Daphnia and other aquatic invertebrates:	EC50 - Daphnia magna (Water flea) - 549 mg/l - 48 h
Persistence and degradability:	No data available.
Bioaccumulative potential:	No data available.
Mobility in soil:	No data available.
Results of PBT and vPvB assessment:	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects:	No data available.

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## SECTION 13 - DISPOSAL CONSIDERATIONS

<b>Waste treatment methods</b>	
Product:	Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging:	Dispose of as unused product.

## SECTION 14 - TRANSPORT INFORMATION

<b>DOT:</b>	
UN number:	3007
UN proper shipping name:	Environmentally hazardous substances, solid, n.o.s. (Tripotassium hexacyanoferrate)
Transport hazard class(es):	
Class:	9
Reportable Quantity (RQ):	---
Packing group:	III
Poison Inhalation Hazard:	No
<b>IMDG:</b>	Not dangerous goods
<b>IATA:</b>	Not dangerous goods

## SECTION 15 - REGULATORY INFORMATION

SARA 302 Components:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards:	No SARA Hazards
Massachusetts Right To Know Components:	No components are subject to the Massachusetts Right to Know Act.

## SECTION 16 - OTHER INFORMATION

<b>HMIS Rating:</b>	
Health Hazard:	I
Chronic Health Hazard:	---
Flammability:	0
Physical Hazard:	0
<b>NFPA Rating:</b>	
Health Hazard:	0
Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect	



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**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: 02/13/2018**

<b>National Chemical Inventories:</b>	
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)

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<b>Abbreviations:</b>	
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

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Ferric Ammonium Citrate - Pg 1

Revision Date: 02/07/2018

## SECTION 1 - CHEMICAL, PRODUCT & COMPANY INFORMATION

Product Name:	<b>FERRIC AMMONIUM CITRATE</b>	
Product Number/Code:	<b>CHM1102, CHM2102, JCY1100</b>	
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:	<b>ChemTel, Inc. - Contract #MIS9128344</b>	
	North America: <b>1-800-255-3924</b>	International: <b>1-813-248-0585</b>

## SECTION 2 - HAZARD(S) IDENTIFICATION

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

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<b>Precautionary Statements-EU:</b>	
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

<b>Description of first aid measures:</b>	
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.

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## 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.

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## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Control parameters:</b>			
Occupational exposure limits:			
Component	Exposure Limits	Basis	Identity
Ferric Ammonium Citrate	1 mg/m <sup>3</sup>	TLV	ACGIH
	1 mg/m <sup>3</sup>	PEL	OSHA
	1 mg/m <sup>3</sup>	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		
<b>Individual protection measures, such as personal protective equipment:</b>			
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.	

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>General information:</b>	
Appearance and physical state:	Powder, granules or flakes
Color:	Green, red or brownish-yellow
Type of Odor:	Odorless
Odor threshold:	Not available
<b>Important health, safety and environmental information:</b>	
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

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## SECTION 11 - TOXICOLOGICAL INFORMATION

<b>Information on toxicological effects:</b>	
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
<b>Carcinogenicity:</b>	
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.
<b>Signs &amp; Symptoms of Exposure:</b>	
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

<b>Toxicity:</b>	
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



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## SECTION 13 - DISPOSAL CONSIDERATIONS

<b>Waste treatment methods:</b>	
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

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

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**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)

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<b>Abbreviations:</b>	
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