Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number:

2282, 2283, 2284.N, 2285, 2286, 2290, 2300, 2302, 2305, R2292000

Product Identity:
COPPER STANDARDS, 1 - 10,000 ppm Cu in dilute Nitric Acid

Manufacturer's Name: RICCA CHEMICAL COMPANY LLC	**Emergency Contact(24 hr) --** CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887
CAGE Code: 4TCW6, 0V553, 4XZQ2	
Address: 448 West Fork Dr Arlington, TX 76012	**Telephone Number For Information:** 817-461-5601
Date Prepared: 11/12/98	**Revision:** 5 Last Revised: 10/11/2006 Date Printed: 01/23/2012 3:57:48 am

Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Cupric Nitrate	3251-23-8	< 4%	Not Available Not Available	Not Available Not Available
Nitric Acid	7697-37-2	< 2%	2 ppm 5.2 mg/m3	2 ppm 5 mg/m3
Water, Deionized	7732-18-5	Balance	Not Available Not Available	Not Available Not Available

Section 3: Hazard Identification

Emergency Overview: Avoid contact with skin, eyes, and clothing. Avoid breathing vapor. If ingested, dilute with water, induce vomiting and call a physician. Wash areas of contact with plenty of water. Potential symptoms of overexposure are irritation of the eyes, mucous membranes and skin, dental erosion, bronchitis, pneumonitis, delayed pulmonary edema. Hazards are greatly reduced due to the low concentrations involved.

Target Organs: eyes, skin, respiratory system, gastrointestinal system, teeth, liver, kidneys.

Eye Contact: May cause irritation, redness, pain, and tearing.

Inhalation: May cause mild irritation.

Skin Contact: May cause irritation, redness, and pain.

Ingestion: Ingestion of large quantity may cause nausea, vomiting and gastrointestinal upset.

Chronic Effects/Carcinogenicity: None

IARC - No.

NTP - No.

OSHA - No.

Reproductive Information: Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Nitric Acid. Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Nitric Acid.

Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Cupric Nitrate. Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Nitric Acid. Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Nitric

Section 4: First Aid Measures - In all cases, seek qualified evaluation.

Eye Contact: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes. Remove any contaminated clothing. Wash with soap and water, then flush again with water. Call a physician if irritation develops.

Ingestion: Dilute immediately with water or milk. Induce vomiting. Call a physician.

Section 5: Fire Fighting Measures

Flash Point: Not Available.

Method Used: Not Available.

LFL: Not Available.

UFL: Not Available.

Extinguishing Media: Use water or water spray on small fires. Do not use dry chemicals or carbon dioxide.

Fire & Explosion Hazards: Not considered to be a fire or explosion hazard.

Fire Fighting Instructions: Use normal procedures/instructions.

Fire Fighting Equipment: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Do not flush to sewer. Absorb with suitable material. Containerize for disposal with a hazardous waste disposal facility. Dispose of in accordance with local regulations.

Section 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

Safety Storage Code: General

Section 8: Exposure Control/Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, colorless to light blue liquid

pH: Not Available.

Odor: Odorless

Boiling Point(°C): Approximately 100

Solubility in Water: Inifinite

Melting Point(°C): Approximately 0

Specific Gravity: Approximately 1

Vapor Pressure: Not Applicable.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong bases

Hazardous Decomposition Products: Emits highly toxic fumes of Nitrogen Oxide when heated to decomposition.

Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

LDLo, Oral, Human: 430 mg/kg (Nitric Acid); LD50, Oral Rat: 940 mg/kg (Cupric Nitrate Hydrate), details of toxic effects not reported other than lethal dose value.

Section 12. Ecological Information

Ecotoxicological Information: Copper and its compounds have high acute and chronic toxicity to aquatic life.
Chemical Fate Information: Copper and its compounds are highly persistent in the aquatic environment, with a half-life of greater than 200 days.

Section 13. Disposal Considerations

Neutralize with Soda Ash or Calcium Carbonate. Wash resulting solution down the drain if allowed for solutions containing copper. If not allowed, containerize for proper disposal with an approved waste disposal facility. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers:

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA Status: These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.
TSCA Status: All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

Section 302 Extremely Hazardous Substances: Not Applicable.
Section 311/312 Hazardous Catagories: Acute, Chronic: Yes Fire, Pressure, Reactivity: No
Section 313 Toxic Chemicals: Not Applicable.

California: None Reported.

Pennsylvania: Cupric Nitrate is listed as an Environmental Hazard on the state's Hazardous Substances List. Nitric Acid is listed as an Environmental Hazard on the state's Hazardous Substances List. Nitric Acid is listed as an Environmental Hazard on the state's Hazardous Substances List. Cupric Nitrate is listed as an Environmental Hazard on the state's Hazardous Substances List.

RCRA Status: Not Applicable.

CERCLA Reportable Quantity: Cupric Nitrate - 100 pounds. Nitric Acid - 1,000 pounds. Nitric Acid - 1,000 pounds. Cupric Nitrate - 100 pounds.

WHMIS: Not Applicable.

Section 16. Other Information

NFPA Ratings:

Health: 1	Flammability: 0	Reactivity: 0	Special Notice Key:None

HMIS Ratings:

Health: 1	Flammability: 0	Reactivity: 0	Protective Equipment:B (Protective Eyewear, Gloves)

Rev 1, 6-11-99: (Section 12) corrected and replaced potassium chromate with copper.
Rev 2, 9-20-2000: Reformatted from WordPerfect® to Microsoft Word®; (Section 1) Revised emergency telephone number to CHEMTREC® 800-424-9300, revised title from 1 - 2500 ppm, added catalog number 2305; (Section 2) revised Cupric Nitrate concentration from < 1, revised Cupric Nitrate CAS number from 10031-43-3; (Section 7) added storage code; (Section 15) added Florida and Pennsylvania state references.
Rev 3, 10-09-2001: Reformatted to electronic data format.
Rev 4, 06-24-2003: (Section 1) added catalog number 2302, (Section 2) revised concentration of Nitric Acid.
Rev 5, 10-11-2006: (Section 1) added catalog number R2292000.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.