Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number:

2200, 2205, M5CONIN0, S2380000, S2382000, SVAR2012

Product Identity:
COBALT STANDARDS, 1000 - 10,000 ppm Co 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: 0V553	
Address: 448 West Fork Dr Arlington, TX 76012	**Telephone Number For Information:** 817-461-5601
Date Prepared: 7/20/00	**Revision:** 3 Last Revised: 04/09/2007 Date Printed: 06/15/2007 4:37:15 pm

Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Cobalt Nitrate Hexahydrate	10026-22-9	0.5 - 5.0	Not Available 0.02 mg/m3	Not Available 0.1 mg/m3
Nitric Acid	7697-37-2	1 - 4	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: May be harmful if swallowed. Avoid contact with skin, eyes, and clothing. If swallowed, do not induce vomiting. Dilute with water and call a physician. Wash areas of contact with plenty of water. Contains a possible human carcinogen.
Target Organs: eyes, skin, respiratory system, teeth.

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

Inhalation: May cause irritation to the nose, throat and respiratory tract.

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

Ingestion: May cause nausea, vomiting, gastrointestinal irritation.

Chronic Effects/Carcinogenicity: Cobalt is a possible carcinogen to humans.

IARC - Cobalt Nitrate Hexahydrate is possibly carcinogenic to humans.

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

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: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.
Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

Section 5: Fire Fighting Measures

Flash Point: Not Available.
Method Used: Not Available.
LFL: Not Available.
UFL: Not Available.
Extinguishing Media: Use any means suitable for extinguishing surrounding fire.
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

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always 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, light pink liquid
pH: acidic
Odor: Odorless
Boiling Point(°C): Approximately 100
Solubility in Water: Infinite
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, metallic powders, Carbides, Hydrogen Sulfide, Turpentine and combustible organics.
Hazardous Decomposition Products: Emits highly toxic fumes of Nitrogen Oxides and Hydrogen Nitrate when heated to decomposition.
Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

LDLo, Oral, Human: 430 mg/kg (Nitric Acid), details of toxic effects not reported other than lethal dose value; 691 mg/kg (Cobalt Nitrate), behavioral, gastrointestinal and nutritional effects noted.
Contains a possible human carcinogen in Cobalt Nitrate.

Section 12. Ecological Information

Ecotoxicological Information: Cobalt and its salts have high acute and chronic toxicity to aquatic life.
Chemical Fate Information: Cobalt and its salts 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. Treat the solid residue as normal refuse. 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: Nitric Acid is listed as an Environmental Hazard on the state's Hazardous Substances List.
RCRA Status: Not Applicable.
CERCLA Reportable Quantity: Nitric Acid - 1,000 pounds.

WHMIS: D-2B: Poisonous and Infectious Material. Materials causing other toxic effects - Toxic Material.

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, 10-09-2001: Reformatted to electronic data format.
Rev 2, 03-09-2005: (Section 1) Added SpectroPure part numbers SVAR2012, S2380000, and S2382000; (Section 2) revised Nitric Acid content from 1-2% to 1-4%.
Rev 3, 04-09-2007: (Section 1) added internal part number M5CONIN0.