

MSDS

Material Safety Data Sheet

**Section 1: Chemical Product and Company Identification**

<b>Catalog Number:</b> 2660	
<b>Product Identity:</b> DRABKIN'S REAGENT	
<b>Manufacturer's Name:</b> RICCA CHEMICAL COMPANY LLC	<b>Emergency Contact(24 hr) -- CHEMTREC®</b> Domestic: 800-424-9300 International: 703-527-3887
<b>CAGE Code:</b> 4TCW6, 0V553, 4XZQ2	
<b>Address:</b> 448 West Fork Dr Arlington, TX 76012	<b>Telephone Number For Information:</b> 817-461-5601
<b>Date Prepared:</b> 10/27/00	<b>Revision: 1</b>  Last Revised: 09/25/2001 Date Printed: 03/05/2015 9:58:04 am

**Section 2. Composition/Information on Ingredients**

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Potassium Ferricyanide	13746-66-2	< 0.1	Not Available Not Available	Not Available Not Available
Sodium Bicarbonate	144-55-8	0.09 - 0.11	Not Available Not Available	Not Available Not Available
Potassium Cyanide	151-50-8	< 0.01	Not Available C 5 mg/m3	Not Available 5 mg/m3
Water, Deionized	7732-18-5	balance	Not Available Not Available	Not Available Not Available

**Section 3: Hazard Identification**

**Emergency Overview:** CAUTION! Contains Cyanide. Do not mix with acid. Avoid ingestion. If ingested, dilute with water or milk and induce vomiting. Call a physician. Wash areas of contact with plenty of water. For eyes, get medical attention.

**Target Organs:** eyes, skin, central nervous system, liver, kidneys, cardiovascular system.

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

**Inhalation:** May cause irritation.

**Skin Contact:** Will pass through unbroken skin and enter the bloodstream. Large exposures can be fatal.

**Ingestion:** May cause nausea, vomiting, diarrhea and cramps.

**Chronic Effects/Carcinogenicity:** None

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**IARC** - No.

**NTP** - No.

**OSHA** - No.

**Reproductive Information:** Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Potassium Cyanide. Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Sodium Bicarbonate. Reproductive effects cited in 'Registry of Toxic Effects of Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Potassium Cyanide. Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Sodium Bicarbonate. Mutation data cited in 'Registry of Toxic Effects of Chemical

### 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 (Not by mouth). Keep fresh 0.3 mL Amyl Nitrite ampules, with instructions, on hand. Break Amyl Nitrite ampule in cloth and hold tightly under nose for 15 seconds, repeat 2 to 6 times at 15 second intervals.

**Skin Contact:** Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops.

**Ingestion:** Dilute immediately with water or milk. Break Amyl Nitrite ampule in cloth and hold tightly under nose for 15 seconds, repeat 2 to 6 times at 15 second intervals. Induce vomiting. Call a physician.

### Section 5: Fire Fighting Measures

**Flash Point:** Not Available.

**LFL:** 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.

**Method Used:** Not Available.

**UFL:** Not Available.

### Section 6: Accidental Release Measures

Absorb with suitable material and 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. Store at room temperature. Contact with acid liberates Cyanide fumes.

**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, pale yellow-green liquid

**Odor:** Odorless

**Solubility in Water:** Infinite

**Specific Gravity:** Approximately 1

**pH:** Alkaline

**Boiling Point(°C):** Approximately 100

**Melting Point(°C):** Approximately 0

**Vapor Pressure:** Not Applicable.

### Section 10: Stability and Reactivity

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

**Incompatibility:** Strong oxidizers, acids, acid salts, Peroxides. Contact with acids generates toxic Cyanide gas.

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**Hazardous Decomposition Products:** Can emit deadly Hydrogen Cyanide and Nitric Oxide vapors when heated to decomposition.

**Hazardous Polymerization:** Will not occur.

### Section 11. Toxicological Information

LD50, Oral, Rat: 5 mg/kg (Potassium Cyanide), 4220 mg/kg (Sodium Bicarbonate), details of toxic effects not reported other than lethal dose value. LD50, Oral, Mouse: (Potassium Ferricyanide) 2970 mg/kg, details of toxic effects not reported other than lethal dose value.

### Section 12. Ecological Information

**Ecotoxicological Information:** Cyanides have high acute and chronic toxicity to aquatic life, birds and land animals.

**Chemical Fate Information:** Potassium Cyanide is non-persistent in water with a half-life of less than 2 days.

### Section 13. Disposal Considerations

In the fume hood, add the Cyanide solution to a solution of 1% Sodium Hydroxide (about 50 mL/g of Cyanide). Household bleach (about 70 mL/g of Cyanide) is slowly added to the basic Cyanide solution with stirring. When the addition of the bleach is complete, the solution can be tested for the presence of Cyanide using the Prussian Blue test: to 1 mL of the solution to be tested add 2 drops of freshly prepared 5% aqueous Ferrous Sulfate solution. Boil this mixture for at least 60 seconds, cool to room temperature, and then add 2 drops of 1% Ferric Chloride solution. The resulting mixture is made acid to litmus with 6 Molar Hydrochloric Acid (prepared with equal amounts of concentrated Hydrochloric Acid and water). If Cyanide is present, a deep blue precipitate will form. (Concentrations of greater than 1 ppm Cyanide can be detected.) If the test is positive, more bleach is added to the Cyanide solution, and the test is repeated. Continue until no Prussian Blue precipitate is formed. Wash the solution down the drain with excess water. 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:**The above items either do not contain any specifically hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health and safety. These items do not 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 Categories:**Acute, Chronic: Yes      Fire, Pressure, Reactivity: No

**Section 313 Toxic Chemicals:**Not Applicable.

**California:** Contains an ingredient (Potassium Cyanide) known to the state of California to cause male reproductive toxicity.

**Pennsylvania:** Potassium Cyanide is listed as an Environmental Hazard on the state's Hazardous Substances List.

**RCRA Status:** P098

**CERCLA Reportable Quantity:** Potassium Cyanide - 10 pounds.

**WHMIS:** Not Applicable.

### Section 16. Other Information

## MSDS

## 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.

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.