T & S Educational/Kemtec Science

MATERIAL SAFETY DATA SHEET

(513) 860-4949

MSDS No.: PP0551
Effective Date: January 1, 2007

SECTION I NAME

Product	Potassium Ferrocyanide 0.1 Molar Solution
Chemical Synonyms	Potassium Ferrocyanide, Water Solution
Formula	Mixture. See Section II.
Unit Size	up to 3.785 Lt.
C.A.S. No.	Mixture. See Section II.

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC
800-424-9300
Day 585-226-6177

NFPA

Health	1
Fire	0
Reactivity	0

HMIS *

HAZARD RATING

MINIMAL	SLIGHT	MODERATE	SERIOUS	SEVERE
0	1	2	3	4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Potassium ferrocyanide: (CAS No. 13943-58-3)	3.68%	See Section V.
Water: (CAS No. 7732-18-5)	96.32%	None established.
CAUTION!		
MAY BE HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION.		

SECTION III PHYSICAL DATA

Melting Point (°F)	Freezes approx. 0°C (32°F)	Specific Gravity (H_2O = 1)	Approx. 1.0
Boiling Point (°F)	Approx. 100°C (212°F)	Percent Volatile by Volume (%)	96.32%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Water =1)	Slightly less than 1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear, water white, water like liquid; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	Lower	Upper
		N/A		
Extinguisher Media	Water spray; carbon dioxide (CO_2); dry chemical (ABC).			

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

In fire conditions, water may evaporate from this solution, which may cause hazardous decomposition products to be produced as dust or fume.

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA PP0551

Threshold Limited Value
None established for this mixture. (ACGIH 2001).

Effects of Overexposure
May be harmful by ingestion. May cause irritation. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Target organs: None known.

Emergency and First Aid Procedures
INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability			Conditions to Avoid
	Unstable		Excessive temperature and heat to cause evaporation.
	Stable	X	

Incompatibility (Materials to Avoid) Strong acids, strong oxidizing agents.

Hazardous Decomposition Products Thermal decomposition will produce toxic fumes of hydrogen cyanide and oxides of carbon and nitrogen.

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled
Absorb spill in vermiculite, sand, earth, paper towel and place in a suitable container for disposal. Wash spill area with soap and water.

Waste Disposal Method
Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in an approved incinerator equipped with an afterburner and scrubber or contract with a licensed waste disposal agency.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None should be needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood, or wear a NIOSH/MSHA-approved respirator.

Ventilation				
	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves		Eye Protection	
	None should be needed.		Chemical safety glasses.

Other Protective Equipment Smock, apron, eye wash station, ventilation hood.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing
Keep container tightly closed when not in use.
Store in a cool, dry place away from strong acids, oxidizers and fire hazards. Wash thoroughly after handling.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Remove and wash contaminated clothing.

Revision No. 4	Date 01/01/07	Approved James A. Bertsch	Chemical Safety Coordinator JAB

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.