MATERIAL SAFETY DATA SHEET

Sargent Welch / VWR Scientific Products

911 Commerce Court
Buffalo Grove, IL 60089-2375
1-800-727-4368

MSDS No.: APC850-9
Effective Date: January 1, 2004

SECTION I NAME

Product	Iron (III) Nitrate 0.1 Molar Solution
Chemical Synonyms	Ferric Nitrate, Water Solution
Formula	Mixture.
Unit Size	up to 3.785 Lt.
C.A.S. No.	Mixture.

24 HOUR EMERGENCY ASSISTANCE

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

NFPA / HMIS *

Health	1
Fire	0
Reactivity	0

HAZARD RATING
MINIMAL 0 SLIGHT 1 MODERATE 2 SERIOUS 3 SEVERE 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Iron (III) Nitrate: (CAS No. 10421-48-4)	2.42%	None established.
Water: (CAS No. 7732-18-5)	97.58%	None established.
WARNING! HARMFUL IF SWALLOWED.		
MAY CAUSE IRRITATION TO SKIN AND EYES.		

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 (%)	97.58%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Water =1)	Slightly <1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear to slightly yellow liquid.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Not flammable.	Flammable Limits in Air % by Volume N/A	Lower	Upper
Extinguisher Media	Use any media suitable for extinguishing supporting fire.			

SPECIAL FIREFIGHTING PROCEDURES

If involved in fire situation, wear a NIOSH/MSHA-approved self-contained breathing apparatus. Use flooding amounts of water in early stages of fire.

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

FF0112

Threshold Limited Value
None established for this solution. Toxicity: orl-rat LD50: 3250 mg/kg. TWA: 1 mg/m^3 (Iron salts, soluble as Fe) (ACGIH 2001).

Effects of Overexposure
INGESTION: May cause burns of the mouth, throat and stomach. Acid nature of this salt may cause corrosive damage to the gastrointestinal tract. **SKIN:** Concentrated aqueous solutions or dust may cause severe local irritation or corrosion. **EYES:** Can cause severe irritation or corrosion. **INHALATION:** May cause upper respiratory tract irritation. Target organs: Blood.

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	Unstable		**Conditions to Avoid**
	Stable	X	Excessive temperature to cause evaporation.

Incompatibility (Materials to Avoid) Aluminum, cyanides, phosphorous, stannous chloride, thiocyanates. Oxidizable materials including sulfur, organic materials and sodium hypophosphite.

Hazardous Decomposition Products Thermal decomposition may produce toxic oxides of nitrogen.

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

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 proper disposal. Flush 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 chemical landfill or contract with a licensed waste disposal agency.

SECTION VIII SPECIAL PROTECTION INFORMATION

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

Ventilation	Local Exhaust	Not required.	Special	No.
	Mechanical (General)	Not required.	Other	No.
Protective Gloves	Rubber.	**Eye Protection**	Chemical safety glasses.	
Other Protective Equipment	Lab coat, apron, eye wash station, proper gloves.			

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. 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.

Avoid contact with skin, eyes and clothing. Avoid breathing mist. Remove and wash contaminated clothing.

Revision No. 7	Date 01/01/04	Approved Michael Raszeja	Chemical Safety Coordinator MR