

Material Safety Data Sheet

Product Catalog Number: 545-480	Precaution: For <i>In-Vitro</i> Use Only.
Name (on Label): ATAC® Iron Reagent Kit	

Section I - NAME AND PRODUCT	
Manufacturer's Name: Vital Diagnostics, Inc.	Emergency Telephone Number: 1-760-602-8700
Address: 27 Wellington Road Lincoln, RI 02865	Telephone Number for Information: 1-401-642-8400; 1-800-345-2822
	Date Prepared: 6/1/08

Section II - Hazard Ingredients/Identity Information								
Hazardous Components	CAS #	NFPA			Conc.	% (WT)	TLV	OSHA PEL
		Health	Fire	Reactivity				
Hydroxylamine HCl	5470-11-1	N/A	N/A	N/A	1.5%	N/A	N/A	N/A
Dimethyl Sulfoxide	67-68-5	N/A	N/A	N/A	5.0%	N/A	N/A	N/A
Sodium Acetate	127-09-3	N/A	N/A	N/A	21.7%	N/A	N/A	N/A
TRIS	77-86-1	N/A	N/A	N/A	6.06%	N/A	N/A	N/A

PEL: Permissible Exposure Limit established by the Occupational Safety and Health Administration (OSHA).
TLV: Threshold Limit Value established by the American Conference of Governmental Industrial Hygienists, 1986-87.

Section III - Physical/Chemical Characteristics	
Boiling Point: Hydroxylamine HCl: N/A Dimethyl Sulfoxide: 189°C Sodium Acetate: N/A TRIS: 219°C	Specific Gravity (H₂O = 1): Hydroxylamine HCl: N/A Dimethyl Sulfoxide: 1.10 Sodium Acetate: 1.45 TRIS: N/A
Vapor Pressure (mm Hg.): N/A	Melting Point: Hydroxylamine HCl: 155°C Dimethyl Sulfoxide: 18°C Sodium Acetate: Decomposes @ 324°C TRIS: 171.2°C
Vapor Density (AIR = 1): N/A	Evaporation Rate: N/A (Butyl Acetate = 1)
Solubility in Water: N/A	Other Physical Data: N/A
Appearance and Odor: N/A	

Material Safety Data Sheet

Section IV - Fire and Explosion Hazard Data		
Flash Point (Method Used): Hydroxylamine HCl: N/A Dimethyl Sulfoxide: 203°F Sodium Acetate: N/A TRIS: N/A	Flammable Limits	
	Lower Explosive Limit:	Upper Explosive Limit:
	N/A	N/A
Extinguishing Media: Hydroxylamine HCl: Use carbon dioxide, dry chemical powder, or foam. Dimethyl Sulfoxide: Use water spray, carbon dioxide, dry chemical powder, alcohol or polymer foam. Sodium Acetate: Use water spray, carbon dioxide, dry chemical powder, alcohol foam. TRIS: Use water spray, carbon dioxide, dry chemical powder, alcohol or polymer foam.		
Special Fire Fighting Procedures: Hydroxylamine HCl: Wear a self-contained breathing apparatus and protective clothing. Dimethyl Sulfoxide: Wear a self-contained breathing apparatus and protective clothing. Sodium Acetate: Wear a self-contained breathing apparatus and protective clothing. TRIS: Wear a self-contained breathing apparatus and protective clothing.		
Unusual Fire and Explosion Hazards: Hydroxylamine HCl: Emits toxic fumes under fire conditions. Dimethyl Sulfoxide: Forms explosive mixtures in air. Emits toxic fumes under fire conditions. Sodium Acetate: Emits toxic fumes under fire conditions. TRIS: Emits toxic fumes under fire conditions.		

Section V - Reactivity Data		
Stability:	Unstable	Conditions to Avoid: None.
	Stable	
Incompatibility (Materials to Avoid): None.		
Hazardous Decomposition or Byproducts: N/A		
Hazardous Polymerization	May Occur	Conditions to Avoid: None.
	Will Not Occur	

Section VI - Health Hazard Data			
Route(s) of Entry:	Inhalation: Yes	Skin: Yes	Ingestion: Yes
Health Hazards (Acute and Chronic): Chronic: N/A Acute: N/A			
Carcinogenicity: No	NTP: N/A	IARC Monographs: N/A	OSHA Regulated: N/A

Signs and Symptoms of Exposure: Hydroxylamine HCl: Harmful if swallowed, inhaled, or absorbed through skin. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed two to four hours or longer. May cause convulsions or allergic reactions. Dimethyl Sulfoxide: May cause eye and skin irritation. May cause allergic respiratory and skin reactions. Chronic exposures may cause reproductive disorder based on test with laboratory animals Sodium Acetate: Inhalation is not expected to be a health hazard. Ingestion in large doses may produce abdominal pain, nausea and vomiting. May cause irritation, redness and pain to skin. Contact to eyes may cause irritation, redness and pain. TRIS: May be harmful by inhalation, ingestion or skin absorption. Causes eye and skin irritation. Material is irritating to mucous membranes and upper respiratory tract.			
---	--	--	--

Material Safety Data Sheet

Medical Conditions Generally Aggravated by Exposure: N/A

Emergency and First Aid Procedures:
Ingestion: Wash out mouth with water. Do not give anything by mouth to an unconscious person. If conscious, drink large quantities of water to dilute. Get medical attention.
Skin: Flush skin with water for 15 minutes. Wash affected area thoroughly with soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Eyes: Flush eyes including under the eyelids with water for 15 minutes. Get medical attention.
Inhalation: Provide fresh air. Restore or support breathing. Keep victim warm and quiet. Get medical attention.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled: Ventilate area. Absorb with non-reactive absorbent. After absorption, scoop up into a container for proper disposal. Wash area clean after material is scooped up.

Waste Disposal Method: Dispose of in a manner consistent with federal, state and local regulation.

Precautions to Be taken in Handling and Storing: N/A

Other Precautions: N/A

Section VIII - Control Measures

Respiratory Protection (*Specify Type*): Wear respiratory protection.

Ventilation:	Local Exhaust: N/A	Protective Gloves: Yes
	Mechanical (General): N/A	Eye Protection: Yes
	Special: Use caution when handling material. Treat product with respect. Follow accepted normally applied laboratory precautions.	Other Protective Clothing or Equipment: Lab Coat
	Other: Good ventilation.	Work/Hygienic Practices: Do not pipette by mouth. Normal laboratory precautions are recommended.

Section IX – Other Information

Miscellaneous Information: Reagents contain sodium azide as preservative. Accumulations of azide may react with copper or lead plumbing to form explosive compound on percussion. Flush drain with copious amounts of water to prevent build up.

The information contained in this document is believed to be factual, however, nothing presented herein is to be taken as a warranty or representation for which Vital Diagnostics shall be liable.