

MATERIAL SAFETY DATA SHEET

Manver Indicator Solution

SECTION 1 . Product and Company Identification

Product Name and Synonym: Manver Indicator Solution

Product Code: 205-27-02

Material Uses:
Manufacturer: OFI Testing Equipment, Inc.
11302 Steeplecrest Drive
Houston, TX 77065 USA
Phone: (713) 880-9885
Fax: (713) 880-9886

Entry Date : 9/29/2009

Print Date: 9/9/2010

24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	1			
Flammability:	2			
Reactivity:	2			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA = Not Applicable		NE = Not Established		

SECTION 2 HAZARD IDENTIFICATION

May cause irritation and burns. May Be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Emergency Overview:Warning! Harmful if Swallowed. Causes Skin Irritation and Severe Eye Irritation.

Inhalation:No Adverse Effects Expected Since Triethanolamine has a Low Vapor Pressure.

Ingestion:May Cause Burns in the Mouth, Pharynx, and Esophagus, Abdominal Pain, Nausea, Vomiting and Diarrhea.

Skin:May Cause Irritation, Redness, and Pain, Especially on Prolonged or Repeated Contact.

Eye Contact:Contact Causes Severe Irritation, Burns, Redness, and Pain. May Cause Irritation, Redness, Pain, and Corneal Damage.

Chronic Exposure:Repeated Ingestion has Caused Kidney and Liver Damage to Animals.

Aggravated by Exposure:No Information Found.

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Eriochrome Black T Reagent Grade	CAS# 1787-61-7	< 1%	V/V	None established
<input type="checkbox"/>	Hydroxylamine Hydrochloride	CAS# 5470-11-1	< .5%	V/V	TXDS: orl-mouse LD ₅₀ : 408 mg/Kg
<input type="checkbox"/>	Triethanolamine 99%	CAS# 102-71-6	80%	V/V	OSHA TWA 50 ppm (270 mg/m ³)
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18-5	Balance	V/V	None Established

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Chronic Exposure:Repeated Ingestion has Caused Kidney and Liver Damage to Animals.

Aggravated by Exposure:No Information Found.

SECTION 4 FIRST AID MEASURES

May cause irritation and burns. May Be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. if irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	Carbon Dioxide, dry chemical powder or appropriate foam
Fire / Explosion Hazards:	Thermal decomposition produces highly toxic fumes. Do not direct water stream at burning pools.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing. Dike and collect water used to fight fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Wear Protective equipment. Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

Ventilate Area of Leak or Spill. Wear Appropriate Personal Protective Equipment as Specified in Section 8. Contain and Recover Liquid when Possible. Collect Liquid in an Appropriate Container or Absorb with an Inert Material (e.g., Vermiculite, Dry Sand, Earth), and Place in a Chemical Waster Container. Do Not Use Combustible Materials, such as Saw Dust. Do Not Flush To Sewer!

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SECTION 7 HANDLING AND STORAGE

Store in a cool, dry, well-ventilated place away from incompatible materials. Keep out of direct sunlight and away from heat & water.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator.

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Wear appropriate gloves to prevent skin exposure.

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	21.6 deg C	Percent Volatile by Volume:	0
Boiling Point:	335 deg C	Evaporation Rate	Information not available
Vapor Pressure:	<0.01 @ 20 deg C	Evaporation Standard	
Vapor Density:	5.1	Auto Ignition Temp	315 deg C
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	1.3
Appearance /Odors:	Clear, dark blue liquid/slight ammonia odor	Upper Flamm. Limit in Air	8.5
Flash Point:	179 deg C		
Specific Gravity:	1.08 @ 20 deg C		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	Sensitive to light and air
Materials to Avoid:	Oxidizing agents, acids.
Hazardous Decomposition Products:	Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

SECTION 11 Toxicological Information

Carcinogenic References: IARC Category- None, NTP Carcinogen - Known: No

SECTION 12 Ecological Information

Environmental Fate: When Released into the Soil, this Material is Expected to Biodegrade.

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When Released into the Soil, this Material may Leach into Groundwater. When Released into the Soil, this Material is Expected to have a Half-Life of 1 and 10 Days. When Released into the Water, this Material is Expected to Readily Biodegrade.

SECTION 13 Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 Transport Information

DOT Classification: Not Regulated

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

Chemical Inventory Status –
Part 1:Ingredient
Triethanolamine (102-71-6)
Hydroxylamine, Hydrochloride (5470-11-1)
Erichrome Black T (1787-61-7)
TSCA Yes Yes Yes
EC Yes Yes Yes
Japan YES Yes Yes
Australia Yes Yes Yes

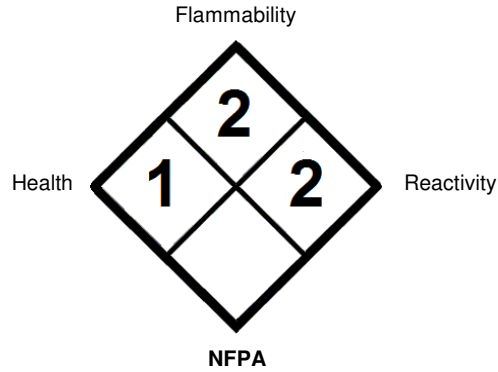
Chemical Inventory Status –
Part 2:Ingredient
Triethanolamine (102-71-6)
Hydroxylamine, Hydrochloride (5470-11-1)
Erichrome Black T (1787-61-7)
Korea Yes Yes Yes
DSL Yes Yes Yes
NDSL No No No
Phil. Yes Yes Yes

Federal, State & International Regulations –
Part 1: Ingredient.
Triethanolamine (102-71-6)
Hydroxylamine, Hydrochloride (5470-11-1)
Erichrome Black T (1787-61-7)
RQ No No No
TPQ No No No
List NO No No
Chemical Catg No No No

Federal, State & International Regulations –
Part 2:Ingredient
Triethanolamine (102-71-6)
Hydroxylamine, Hydrochloride (5470-11-1)
Erichrome Black T (1787-61-7)
CERCLA No No No
261.33 No No No
8(d) No No No

SECTION 16 Additional Information

Conditions aggravated: Persons with preexisting skin, eye or respiratory conditions may be more susceptible. Acute: Irritation or burns to skin, eyes, mouth, respiratory and digestive systems. Chronic: Dermatitis, conjunctivitis, kidney and liver damage. Target Organs: Liver, kidneys.



Revisions

7/30/2010	0.1	updated msds to 16 section from 10 section msds. STN
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