

Material Safety Data Sheet

Product Name: STANDARD SOLUTION: 1002 - REDOX 475mV	Order Code: 1002	Document No: TI-MSD-011
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Section 1

Manufacturer's Name TRANS INSTRUMENTS (S) PTE LTD	Telephone Number 65-67420367
Address 5, Jalan Kilang Barat, #06-04/05, Singapore 159349	Date Prepared 03-09-2010

Section 2 - Hazard Ingredients/Identity Information

Hazardous Components Specific Chemical Identity; Common Name(s)	%	OSHA PEL	ACGIH TLV
Sulfuric Acid (H ₂ SO ₄)	<6	TWA 1mg/m ³	TWA 1mg/m ³
Ammonium Iron(II) Sulfate 6-Hydrate (NH ₄) ₂ FE(SO ₄) ₂ .6 H ₂ O	<4	None Listed	None Listed
Ammonium Iron(III) Sulfate 12-Hydrate NH ₄ FE(SO ₄) ₂ .12 H ₂ O	<5	None Listed	None Listed
Deionised Water (H ₂ O)	>85	None Listed	None Listed

Section 3 - Physical/Chemical Characteristics

Boiling Point 750mm HG	>100°C	Freezing Point	<0°C
Vapor Pressure @ 25 °C	NA	Vapor Density (AIR=1)	NA
Specific Gravity (H₂O = 1)	1.0	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water Miscible			
Appearance and Odor Yellowish and odorless liquid			

Section 4 - Fire and Explosion Hazard Data

Flash Point (Method Used) Not flammable	Auto-Ignition Temperature NA		
Flammable Limits in air % by volume	LEL NA	UEL NA	
Extinguishing Media CO ₂ , Dry chemical, dry sand, alcohol-resistant foam			
Special Fire Fighting Procedures None, non-flammable			
Unusual Fire and Explosion Hazards Not combustible but will react with other chemicals (Hydroxides)			

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Section 5 - Reactivity Data

Stability Unstable Stable X	Conditions to Avoid None
Incompatibility (Materials to Avoid) : Organic acids, metals	
Hazardous Decomposition or Byproducts Toxic gases and vapors may be released when sulfuric acid decomposes	
Hazardous Polymerization May Occur Will Not Occur X	Conditions to Avoid None

Section 6 - Health Hazard Data

Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Ingestion? Yes
Health Hazards (Acute and Chronic) Acute - Irritation of eyes, nose, throat and skin. Chronic- may cause burn, cause the mouth to become sore, chronic irritation or inflammation of nose and throat.			
Carcinogenicity:	NTP? Not found	IARC Monographs? Not found	OSHA Regulated? Not found
Signs and Symptoms of Exposure Skin irritation, skin sores or burns, eyes watering			
Medical Conditions Generally Aggravated by Exposure Could aggravate diseases of the skin.			
Emergency and First Aid Procedures Wash off contact area with water. If ingested, give large amounts of water. Get medical attention immediately.			

Section 7 - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled Clean up and set aside for disposal.
Waste Disposal Method Consult Local Laws for proper disposal.
Precautions to Be taken in Handling and Storing Suitable for any general handling and storage.
Other Precautions None

Section 8 - Control Measures

Respiratory Protection (Specify Type) None		
Ventilation	Local Exhaust Control to exposure limits	Special None
	Mechanical (General) None	Other None
Protective Gloves Yes	Eye Protection Safety glasses	
Other Protective Clothing or Equipment Lab Coat		
Work/Hygienic Practices Emergency eyewash should be available. Wash hands after working with this product.		

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Section 9 – Transport Information

Not subject to transport regulations.