

# MATERIAL SAFETY DATA SHEET

Manganese Standard 1,000 ppm

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Manganese Standard 1,000 ppm

Product Code: 5550

Material Uses:

Manufacturer: Science Stuff  
1104 Newport Ave  
Austin, TX 78753  
(512) 837-6020

Entry Date : 6/11/2013

Print Date: 6/11/2013

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

Health:	2
Flammability:	0
Reactivity:	0

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.

## SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Manganese Acetate Tetrahydrate	CAS# 6156-78-1	~0.45%	W/W	ACGIH TWA 0.2 MG (MN)/M3
<input checked="" type="checkbox"/>	Nitric Acid	CAS# 7697-37-2	2 - 5%	W/W	OSHA TWA 2 ppm (5mg/m <sup>3</sup> ), STEL 4 ppm (10mg/m <sup>3</sup> )
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18-5	Balance	V/V	None Established

## 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.

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**SECTION 5 FIRE FIGHTING MEASURES**

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire  
Fire / Explosion Hazards: None Known.  
Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Absorb spill with inert material, then place in a chemical waste container. Neutralize with a weak base.

**SECTION 7 HANDLING AND STORAGE**

Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Respiratory Protection: None required  
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:	~0° C	Percent Volatile by Volume:	>99%
Boiling Point:	~100° C	Evaporation Rate	Information not available
Vapor Pressure:	18.51 mmHg	Evaporation Standard	
Vapor Density:	0.62 g/L	Auto Ignition Temp	Information not available
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Information not available
Appearance /Odors:	Colorless, odorless	Upper Flamm. Limit in Air	Information not available
Flash Point:	noncombustible		
Specific Gravity:	1.02		

**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

Stability: Stable  
Conditions to Avoid: Extreme Heat

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Materials to Avoid: Oxidizers  
Hazardous Decomposition Products: Nitrogen oxides  
Hazardous polymerization: not expected to occur  
Conditions to Avoid: None known

**SECTION 11 Toxicological Information**

**SECTION 12 Ecological Information**

**SECTION 13 Disposal Considerations**

**SECTION 14 Transport Information**

DOT Classification: UN3264, Corrosive Liquid, Acidic, Inorganic, n.o.s. (contains Nitric Acid), 8, PG III

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

**SECTION 15 Regulatory Information**

**SECTION 16 Additional Information**

Conditions aggravated/target organs: Corrosive Properties. Persons with preexisting skin, eye and respiratory disorders may be more susceptible. Acute: may cause irritation or burns to skin, eyes, respiratory tract and digestive tract. May be harmful or fatal by inhalation or ingestion. Chronic: Dermatitis, eye damage,

Flammability

Health

Reactivity

Revisions

NFPA

0.1

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