



LABORATORY CHEMICALS AND CONSUMABLES

# MATERIAL SAFETY DATA SHEET

## MANGANESE AA STANDARD

### 1. Chemical Product and Company information

**Product name:** Manganese AA Standard

**Contact Information:**

Radchem cc  
PO Box 166982  
Brackendowns  
Alberton 1454  
Telephone : **011 867 3726 / 2864**

### 2. Hazard Identification

Hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death.

### 3. Composition / information on ingredients

**CAS #:** Mixture

**Synonym:**

**Chemical Name:** Not applicable

**Chemical Formula:** Not applicable

### 4. First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

**Skin Contact:** If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical got on the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.



**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:** Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

**Ingestion:** Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:** Not available.

## **5. Fire-fighting measures**

**Flammability of the Product:** Non-flammable

**Fire Hazards in Presence of Various Substances:** Not applicable

**Explosion Hazards in Presence of Various Substances:** Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive to explosive in presence of reducing materials, of combustible materials, of organic materials.

**Fire Fighting Media and Instructions:** Not applicable

**Special Remarks on Fire Hazards:** Not applicable

**Special Remarks on Explosion Hazards:** Not available

## **6. Accidental release measures**

**Small Spill:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.

**Large Spill:** Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapour drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## **7. Handling and storage**

**Precautions:** Keep locked up Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Never add water to this product In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes

**Storage:** Corrosive materials should be stored in a separate safety storage cabinet or room.

## **8. Exposure controls/personal protection**

**Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value. Ensure that eyewash stations and safety



showers are proximal to the work-station location.

**Personal Protection:** Face shield. Full suit. Vapour respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Vapour respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### **9. Physical and chemical properties**

**Physical state and appearance:** Liquid

**Odour:** Not available

**Taste:** Not available

**Colour:** Not available

**Boiling Point:** The lowest known value is 82.6°C (Nitric acid, fuming). Weighted average: 99.76°C

**Melting Point:** May start to solidify at -41.6°C based on data for: Nitric acid, fuming.

**Critical Temperature:** Not available

**Specific Gravity:** Weighted average: 1 (Water = 1)

**Vapour Density:** The highest known value is 0.62 (Air = 1) (Water)

**Volatility:** Not available

**Odour Threshold:** The highest known value is 0.29 ppm (Nitric acid, fuming)

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water

**Solubility:** Easily soluble in cold water

### **10. Stability and reactivity**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available

**Incompatibility with various substances:** Slightly reactive to reactive with reducing agents, combustible materials, organic materials, metals, acids, alkalis.

**Corrosivity:** Non-corrosive in presence of glass

**Special Remarks on Reactivity:** Not available

**Special Remarks on Corrosivity:** Not available

**Polymerization:** Will not occur.

### **11. Toxicological information**

**Routes of Entry:** Dermal contact. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:** WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS



OF A 4-HOUR EXPOSURE. Acute toxicity of the vapour (LC50): 4786 ppm 4 hour(s) (Rat) (Calculated value for the mixture)

**Chronic Effects on Humans:** The substance is toxic to blood, kidneys, lungs, the nervous system, mucous membranes.

**Other Toxic Effects on Humans:** Hazardous in case of skin contact (corrosive, irritant, permeator), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not available

**Special Remarks on Chronic Effects on Humans:** Not available

**Special Remarks on other Toxic Effects on Humans:** Not available

## **12. Ecological information**

**Ecotoxicity:** Not available

**BOD5 and COD:** Not available

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are more toxic

**Special Remarks on the Products of Biodegradation:** Not available

## **13. Disposal considerations**

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## **14. Transport information**

**DOT Classification:** CLASS 8: Corrosive liquid

**Identification:** : Nitric acid, solution (Nitric acid, fuming) : UN2031 PG: II

**Special Provisions for Transport:** Marine Pollutant

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