



# Material Safety Data Sheet

## Section 1. Product and Company Identification

<b>Product Name</b>	EM QUANT ® Manganese Test	<b>Product Code</b>	10080
<b>Manufacturer</b>	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	<b>Effective Date</b>	9/1/2004
<b>For More Information Call</b>	856-423-6300 Technical Service Monday-Friday: 8:00 AM - 5:00 PM	<b>In Case of Emergency Call</b>	800-424-9300 CHEMTREC (USA) 613-996-6666 CANUTEC (Canada) 24 Hours/Day: 7 Days/Week
<b>Synonym</b>	EM QUANT ® Manganese Test		Reagent No. 1 of two reagents.
	EM QUANT ® Manganese Test		Reagent No. 2 of two reagents
<b>Material Uses</b>	EM QUANT ® Manganese Test		Analytical reagent.
	EM QUANT ® Manganese Test		Analytical reagent.
<b>Chemical Family</b>	EM QUANT ® Manganese Test		Solution.
	EM QUANT ® Manganese Test		Solution.

## Section 2. Composition and Information on Ingredients

Product name / Reagent.	Component ; CAS # ; % by Weight
EM QUANT ® Manganese Test	Water; 7732-18-5; 96%
	Sodium Hydroxide; 1310-73-2; 4%
EM QUANT ® Manganese Test	Water; 7732-18-5; 90%
	Acetic Acid; 64-19-7; 10%

## Section 3. Hazards Identification

<b>Physical State and Appearance</b>	EM QUANT ® Manganese Test	Liquid.
	EM QUANT ® Manganese Test	Liquid.
<b>Emergency Overview</b>	EM QUANT ® Manganese Test	DANGER! CAUSES EYE AND SKIN BURNS. HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. CAUSES RESPIRATORY TRACT IRRITATION. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: LUNGS, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.
	EM QUANT ® Manganese Test	WARNING! CAUSES EYE AND SKIN BURNS. HARMFUL IF INHALED OR SWALLOWED. CAUSES RESPIRATORY TRACT IRRITATION. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA, TEETH.
<b>Routes of Entry</b>	EM QUANT ® Manganese Test	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
	EM QUANT ® Manganese Test	Absorbed through skin. Dermal contact. Inhalation. Ingestion.
<b>Potential Acute Health Effects</b>	EM QUANT ® Manganese Test	Hazardous in case of eye contact (corrosive). Causes eye burns.
<b>Eyes</b>	EM QUANT ® Manganese Test	Hazardous in case of eye contact (corrosive). Causes eye burns.

<b>Skin</b>	EM QUANT ® Manganese Test	Hazardous in case of skin contact (permeator, corrosive). Skin contact produces burns.
	EM QUANT ® Manganese Test	Hazardous in case of skin contact (corrosive). Skin contact produces burns.
<b>Inhalation</b>	EM QUANT ® Manganese Test	Hazardous in case of inhalation (lung irritant).
	EM QUANT ® Manganese Test	Hazardous in case of inhalation (lung irritant).
<b>Ingestion</b>	EM QUANT ® Manganese Test	Hazardous in case of ingestion.
	EM QUANT ® Manganese Test	Hazardous in case of ingestion.

**Potential Chronic Health Effects  
Carcinogenic Effects**

EM QUANT ® Manganese Test	This material is not known to cause cancer in animals or humans.
EM QUANT ® Manganese Test	This material is not known to cause cancer in animals or humans.

**Additional information See Toxicological Information (section 11)**

**Medical Conditions  
Aggravated by  
Overexposure:**

EM QUANT ® Manganese Test	Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
EM QUANT ® Manganese Test	Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

## Section 4. First Aid Measures

<b>Eye Contact</b>	EM QUANT ® Manganese Test	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
	EM QUANT ® Manganese Test	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
<b>Skin Contact</b>	EM QUANT ® Manganese Test	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
	EM QUANT ® Manganese Test	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
<b>Inhalation</b>	EM QUANT ® Manganese Test	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
	EM QUANT ® Manganese Test	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
<b>Ingestion</b>	EM QUANT ® Manganese Test	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
	EM QUANT ® Manganese Test	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

## Section 5. Fire Fighting Measures

<b>Flammability of the Product</b>	EM QUANT ® Manganese Non-flammable. Test
	EM QUANT ® Manganese Non-flammable. Test
<b>Auto-ignition Temperature</b>	EM QUANT ® Manganese Not applicable. Test
	EM QUANT ® Manganese Not applicable. Test
<b>Flash Points</b>	EM QUANT ® Manganese Not applicable. Test
	EM QUANT ® Manganese Not applicable. Test
<b>Flammable Limits</b>	EM QUANT ® Manganese Not applicable. Test
	EM QUANT ® Manganese Not applicable. Test
<b>Products of Combustion</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test
<b>Fire Hazards in Presence of Various Substances</b>	EM QUANT ® Manganese Not applicable. Test
	EM QUANT ® Manganese Not applicable. Test
<b>Explosion Hazards in Presence of Various Substances</b>	EM QUANT ® Manganese <b>Risks of explosion of the product in presence of static discharge:</b> No. Test
	<b>Risks of explosion of the product in presence of mechanical impact:</b> No. EM QUANT ® Manganese <b>Risks of explosion of the product in presence of static discharge:</b> Test Explosive in presence of open flames, sparks and static discharge.
	<b>Risks of explosion of the product in presence of mechanical impact:</b> No.
<b>Fire Fighting Media and Instructions</b>	EM QUANT ® Manganese Not applicable. Test
	EM QUANT ® Manganese Not applicable. Test
<b>Protective Clothing (Fire)</b>	EM QUANT ® Manganese Not applicable. Test
	EM QUANT ® Manganese Not applicable. Test
<b>Special Remarks on Fire Hazards</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test
<b>Special Remarks on Explosion Hazards</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test

## Section 6. Accidental Release Measures

<b>Small Spill and Leak</b>	EM QUANT ® Manganese Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Test
	EM QUANT ® Manganese Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Test
<b>Large Spill and Leak</b>	EM QUANT ® Manganese 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 vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities. Test
	EM QUANT ® Manganese 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 vapor drift. Use water spray to reduce

vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

**Spill Kit Information**

Reagent No. 1

The following EMD Chemicals Inc. SpillSolv ® absorbent is recommended for this product: SX1320

Caustic Treatment Kit

Reagent No. 2

The following EMD Chemicals Inc. SpillSolv ® absorbent is recommended for this product: SX1310

Acid Treatment Kit

**Section 7. Handling and Storage****Handling**

EM QUANT ® Manganese Test Do not ingest. Do not breathe vapor or mist. Keep container closed. Do not get in eyes, on skin or clothing.

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**Storage**

EM QUANT ® Manganese Test Keep container in a cool, well-ventilated area.

Test

EM QUANT ® Manganese Test Keep container in a cool, well-ventilated area.

Test

**Section 8. Exposure Controls/Personal Protection****Engineering Controls**

EM QUANT ® Manganese Test Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

EM QUANT ® Manganese Test Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection****Eyes**

EM QUANT ® Manganese Test Face shield.

Test

EM QUANT ® Manganese Test Face shield.

Test

**Body**

EM QUANT ® Manganese Test Full suit.

Test

EM QUANT ® Manganese Test Full suit.

Test

**Respiratory**

EM QUANT ® Manganese Test Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

EM QUANT ® Manganese Test Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

**Hands**

EM QUANT ® Manganese Test Gloves.

Test

EM QUANT ® Manganese Test Gloves.

Test

**Feet**

EM QUANT ® Manganese Test Boots.

Test

EM QUANT ® Manganese Test Boots.

Test

**Protective Clothing (Pictograms)****Personal Protection in Case of a Large Spill**

EM QUANT ® Manganese Test Splash goggles. Full suit. Vapor 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.

EM QUANT ® Manganese Test Splash goggles. Full suit. Vapor respirator. Boots. Gloves.

## Test

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.

**Product Name**

Water  
Sodium Hydroxide

**Exposure Limits**

Not available.

**ACGIH (United States).**

CEIL: 2 mg/m<sup>3</sup>

**OSHA (United States).**

CEIL: 2 mg/m<sup>3</sup>

**AUVA (Austria, 1995).**

Spitzenbegrenzung: 4 mg/m<sup>3</sup> 8 times per shift, 5 minute(s).

TWA: 2 mg/m<sup>3</sup> 8 hour(s).

**Belgium Minister of Labour (Belgium, 1998).**

CEIL: 2 mg/m<sup>3</sup>

VL: 2 mg/m<sup>3</sup> 8 hour(s).

**BAUA (Germany, 1997).**

Spitzenbegrenzung: 2 mg/m<sup>3</sup>

TWA: 2 mg/m<sup>3</sup> 8 hour(s).

**DK-Arbejdstyilsinet (Denmark, 1996).**

Loftværdi: 2 mg/m<sup>3</sup>

GV: 2 mg/m<sup>3</sup> 8 hour(s).

**Tyterveyslaitos (Finland, 1998).**

TWA: 2 mg/m<sup>3</sup> 8 hour(s).

**INRS (France, 1996).**

VME: 2 mg/m<sup>3</sup> 8 hour(s).

**National Authority for Occupational Safety/Health (Ireland, 1999).**

STEL: 2 mg/m<sup>3</sup> 15 minute(s).

**Arbeidsinspectie (Netherlands, 1999).**

MAC-C: 2 mg/m<sup>3</sup>

TGG 8 uur: 2 mg/m<sup>3</sup> 8 hour(s).

**N-Arbejdstyilsinet (Norway, 1996).**

AN: 2 mg/m<sup>3</sup> 8 hour(s).

**AFS (Sweden, 1996).**

KTV: 2 mg/m<sup>3</sup> 15 minute(s).

**EH40-OES (United Kingdom (UK), 1997).**

STEL: 2 mg/m<sup>3</sup> 15 minute(s).

**NIOSH REL (United States, 1994).**

CEIL: 2 mg/m<sup>3</sup>

**OSHA Final Rule (United States, 1989).**

CEIL: 2 mg/m<sup>3</sup>

Acetic Acid

**BAUA (Germany, 1997).**

Spitzenbegrenzung: 25 mg/m<sup>3</sup>

Spitzenbegrenzung: 10 ppm

TWA: 25 mg/m<sup>3</sup> 8 hour(s).

TWA: 10 ppm 8 hour(s).

**DK-Arbejdstyilsinet (Denmark, 1996).**

GV: 25 mg/m<sup>3</sup> 8 hour(s).

GV: 10 ppm 8 hour(s).

**80/1107/EEC (Europe, 1991).**

TWA: 10 mg/m<sup>3</sup> 8 hour(s).

TWA: 25 ppm 8 hour(s).

**National Authority for Occupational Safety/Health (Ireland, 1999).**

STEL: 37 mg/m<sup>3</sup> 15 minute(s).

STEL: 15 ppm 15 minute(s).

OEL: 25 mg/m<sup>3</sup> 8 hour(s).

OEL: 10 ppm 8 hour(s).

**Arbeidsinspectie (Netherlands, 1999).**

TGG 8 uur: 25 mg/m<sup>3</sup> 8 hour(s).

TGG 8 uur: 10 ppm 8 hour(s).

**N-Arbejdstyilsinet (Norway, 1996).**

AN: 25 mg/m<sup>3</sup> 8 hour(s).

AN: 10 ppm 8 hour(s).

**EH40-OES (United Kingdom (UK), 1997).**

STEL: 37 mg/m<sup>3</sup> 15 minute(s).

STEL: 15 ppm 15 minute(s).

TWA: 25 mg/m<sup>3</sup> 8 hour(s).

TWA: 10 ppm 8 hour(s).

**ACGIH (United States, 1994).**

STEL: 37 mg/m<sup>3</sup> 15 minute(s).

STEL: 15 ppm 15 minute(s).

TWA: 25 mg/m<sup>3</sup> 8 hour(s).

TWA: 10 ppm 8 hour(s).

**NIOSH REL (United States, 1994).**

STEL: 37 mg/m<sup>3</sup> 15 minute(s).

STEL: 15 ppm 15 minute(s).

TWA: 25 mg/m<sup>3</sup> 10 hour(s).

TWA: 10 ppm 10 hour(s).  
**OSHA Final Rule (United States, 1989).**  
 TWA: 25 mg/m<sup>3</sup> 8 hour(s).  
 TWA: 10 ppm 8 hour(s).

## Section 9. Physical and Chemical Properties

<b>Odor</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test
<b>Color</b>	EM QUANT ® Manganese Colorless. Test
	EM QUANT ® Manganese Colorless. Test
<b>Physical State and Appearance</b>	EM QUANT ® Manganese Liquid. Test
	EM QUANT ® Manganese Liquid. Test
<b>Molecular Weight</b>	EM QUANT ® Manganese Not applicable. Test
	EM QUANT ® Manganese Not applicable. Test
<b>Molecular Formula</b>	EM QUANT ® Manganese Not applicable. Test
	EM QUANT ® Manganese Not applicable. Test
<b>pH</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test
<b>Boiling/Condensation Point</b>	EM QUANT ® Manganese The lowest known value is 99.9°C (211.8°F) (Water). Test
	EM QUANT ® Manganese The lowest known value is 99.9°C (211.8°F) (Water). Test
	Weighted average: 101.69°C (215°F)
<b>Melting/Freezing Point</b>	EM QUANT ® Manganese May start to solidify at -0.1°C (31.8°F) based on data for: Test
	Water.
	EM QUANT ® Manganese May start to solidify at 16.72°C (62.1°F) based on data Test
	for: Acetic Acid. Weighted average: 1.58°C (34.8°F)
<b>Critical Temperature</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test
<b>Specific Gravity</b>	EM QUANT ® Manganese The only known value is 2.13 (Water = 1) (Sodium Test
	Hydroxide).
	EM QUANT ® Manganese The only known value is 1.051 (Water = 1) (Acetic Acid). Test
<b>Vapor Pressure</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test
<b>Vapor Density</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese The highest known value is 2.1 (Air = 1) (Acetic Acid). Test
<b>Volatility</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test
<b>Odor Threshold</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese The lowest known value is 1 ppm (Acetic Acid) Test
<b>Evaporation Rate</b>	EM QUANT ® Manganese 0.36 (Water) compared to (n-BUTYL ACETATE=1) Test
	EM QUANT ® Manganese The highest known value is 1.34 (Acetic Acid) Weighted Test
	average: 0.46 compared to (n-BUTYL ACETATE=1)
<b>VOC</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available. Test
<b>Viscosity</b>	EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Not available.

<b>LogKow</b>	Test EM QUANT ® Manganese	Not available.
<b>Ionicity (in Water)</b>	Test EM QUANT ® Manganese	Not available.
<b>Solubility</b>	Test EM QUANT ® Manganese	Soluble in water.
<b>Physical Chemical Comments</b>	Test EM QUANT ® Manganese	Not available.

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## Section 10. Stability and Reactivity

<b>Stability and Reactivity</b>	EM QUANT ® Manganese	The product is stable.
<b>Conditions of Instability</b>	Test EM QUANT ® Manganese	The product is stable.
<b>Incompatibility with Various Substances</b>	Test EM QUANT ® Manganese	Slightly reactive to reactive with organic materials, metals, acids.
<b>Rem/Incompatibility</b>	Test EM QUANT ® Manganese	Slightly reactive to reactive with oxidizing agents, metals, alkalis.
<b>Hazardous Decomposition Products</b>	Test EM QUANT ® Manganese	Not available.
<b>Hazardous Polymerization</b>	Test EM QUANT ® Manganese	Will not occur.

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## Section 11. Toxicological Information

<b>RTECS Number:</b>	Water Sodium Hydroxide Acetic Acid	ZC0110000 WB4900000 AF1225000
<b>Toxicity</b>	EM QUANT ® Manganese	LD50: Not available. LC50: Not available. Acute oral toxicity (LD50): 33100 mg/kg (Rat) (Calculated value for the mixture). Acute toxicity of the vapor (LC50): 28100 ppm 4 hours (Muskrat) (Calculated value for the mixture).
<b>Chronic Effects on Humans</b>	Not available.	
<b>Acute Effects on Humans</b>	EM QUANT ® Manganese	Hazardous in case of eye contact (corrosive). Causes eye burns. Hazardous in case of skin contact (permeator, corrosive). Skin contact produces burns. Hazardous in case of inhalation (lung irritant). Hazardous in case of ingestion.
<b>Special Remarks on Toxicity</b>	EM QUANT ® Manganese	Hazardous in case of eye contact (corrosive). Causes eye burns. Hazardous in case of skin contact (corrosive). Skin contact produces burns. Hazardous in case of inhalation (lung irritant). Hazardous in case of ingestion.
<b>Special Remarks on Chronic Effects on Humans</b>	EM QUANT ® Manganese	Not available.

	Test
<b>Special Remarks on Other Toxic Effects on Humans</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test
<b>Synergetic Products (Toxicologically)</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test
<b>Irritancy</b>	EM QUANT ® Manganese Draize Test: Not available. Test EM QUANT ® Manganese Draize Test: Not available. Test
<b>Sensitization</b>	EM QUANT ® Manganese Slightly hazardous in case of inhalation (lung sensitizer). Test EM QUANT ® Manganese Slightly hazardous in case of inhalation (lung sensitizer). Test
<b>Carcinogenic Effects</b>	EM QUANT ® Manganese This material is not known to cause cancer in animals or humans. Test EM QUANT ® Manganese This material is not known to cause cancer in animals or humans. Test
<b>Toxicity to Reproductive System</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test
<b>Teratogenic Effects</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test
<b>Mutagenic Effects</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test

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## Section 12. Ecological Information

<b>Ecotoxicity</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test
<b>BOD5 and COD</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test
<b>Biodegradable/OECD</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test
<b>Mobility</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test
	EM QUANT ® Manganese Test Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
	EM QUANT ® Manganese Test Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
<b>Toxicity of the Products of Biodegradation</b>	EM QUANT ® Manganese The products of degradation are less toxic than the product itself. Test EM QUANT ® Manganese The products of degradation are less toxic than the product itself. Test
<b>Special Remarks on the Products of Biodegradation</b>	EM QUANT ® Manganese Not available. Test EM QUANT ® Manganese Not available. Test

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## Section 13. Disposal Considerations

<b>EPA Waste Number</b>	EM QUANT ® Manganese D002 Test EM QUANT ® Manganese D002 Test
<b>Treatment</b>	EM QUANT ® Manganese Specified Technology - Neutralize to pH 6-9. Contact your

Test	local permitted waste disposal site (TSD) for permissible treatment sites. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations..
EM QUANT ® Manganese Test	Specified Technology - Neutralize to pH 6-9. Contact your local permitted waste disposal site (TSD) for permissible treatment sites. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations..

## + Section 14. Transport Information

<b>DOT Classification</b>	Proper Shipping Name: SODIUM HYDROXIDE SOLUTION Hazard Class: 8 UN number: UN1824 Packing Group: II RQ: Not applicable.
<b>TDG Classification IMO/IMDG Classification ICAO/IATA Classification</b>	Not available. Not available.
	Proper Shipping Name: SODIUM HYDROXIDE SOLUTION Hazard Class: 8 UN number: UN1824 Packing Group: II RQ: Not applicable.

## Section 15. Regulatory Information

<b>U.S. Federal Regulations</b>	EM QUANT ® Manganese Test	TSCA 8(b) inventory: Water; Sodium Hydroxide
	EM QUANT ® Manganese Test	TSCA 8(b) inventory: Water; Acetic Acid
	EM QUANT ® Manganese Test	SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: Sodium Hydroxide SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Hydroxide: Immediate (Acute) Health Hazard
	EM QUANT ® Manganese Test	SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: Acetic Acid SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
	EM QUANT ® Manganese Test	SARA 313 toxic chemical notification and release reporting: No products were found.
	EM QUANT ® Manganese Test	SARA 313 toxic chemical notification and release reporting: No products were found.
	EM QUANT ® Manganese Test	Clean Water Act (CWA) 307: No products were found.
	EM QUANT ® Manganese Test	Clean Water Act (CWA) 307: No products were found.
	EM QUANT ® Manganese Test	Clean Water Act (CWA) 311: Sodium Hydroxide
	EM QUANT ® Manganese Test	Clean Water Act (CWA) 311: Acetic Acid
	EM QUANT ® Manganese Test	Clean air act (CAA) 112 accidental release prevention: No products were found.
	EM QUANT ® Manganese Test	Clean air act (CAA) 112 accidental release prevention: No products were found.
	EM QUANT ® Manganese Test	Clean air act (CAA) 112 regulated flammable substances: No products were found.
	EM QUANT ® Manganese Test	Clean air act (CAA) 112 regulated flammable substances: No products were found.
	EM QUANT ® Manganese Test	Clean air act (CAA) 112 regulated toxic substances: No products were found.
	EM QUANT ® Manganese Test	Clean air act (CAA) 112 regulated toxic substances: No products were found.
<b>WHMIS (Canada)</b>	EM QUANT ® Manganese Test	Class D-1B: Material causing immediate and serious toxic effects (TOXIC). Class D-2A: Material causing other toxic effects (VERY TOXIC).

CLASS E: Corrosive liquid.

EM QUANT ® Manganese CLASS E: Corrosive liquid.

Test

EM QUANT ® Manganese Test CEPA DSL: Water; Sodium Hydroxide

EM QUANT ® Manganese Test CEPA DSL: Water; Acetic Acid

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

**International Regulations****EINECS**

Water 231-791-2

Sodium Hydroxide 215-185-5

Acetic Acid 200-580-7

**DSCL (EEC)**

EM QUANT ® Manganese R38- Irritating to skin.

Test

R41- Risk of serious damage to eyes.

EM QUANT ® Manganese R35- Causes severe burns.

Test

**International Lists**

EM QUANT ® Manganese Australia (NICNAS): Water; Sodium Hydroxide

Test

Japan (MITI): Water; Sodium Hydroxide

Korea (TCCL): Water; Sodium Hydroxide

Philippines (RA6969): Water; Sodium Hydroxide

EM QUANT ® Manganese Australia (NICNAS): Water; Acetic Acid

Test

Japan (MITI): Water; Acetic Acid

Korea (TCCL): Water; Acetic Acid

Philippines (RA6969): Water; Acetic Acid

China: No products were found.

**State Regulations**

EM QUANT ® Manganese Pennsylvania RTK: Sodium Hydroxide: (environmental hazard, generic environmental hazard)

Test

Massachusetts RTK: Sodium Hydroxide

New Jersey: Sodium Hydroxide

EM QUANT ® Manganese Pennsylvania RTK: Acetic Acid: (environmental hazard, generic environmental hazard)

Test

Massachusetts RTK: Acetic Acid

New Jersey: Acetic Acid

EM QUANT ® Manganese Test California prop. 65: No products were found.

EM QUANT ® Manganese Test California prop. 65: No products were found.

**Section 16. Other Information****National Fire  
Protection  
Association  
(U.S.A.)**

	<b>0</b>	<b>Fire Hazard</b>
<b>Health</b>	<b>1 0</b>	<b>Reactivity</b>
		<b>Specific Hazard</b>

**Other Special  
Considerations**

EM QUANT ® Manganese Not available.

Test

EM QUANT ® Manganese Not available.

Test

**Changed Since Last  
Revision**

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