Material Safety Data Sheet

Issuing Date 5/152012 **Revision Number** 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **MANGANESE INDICATOR REAGENT**

Product Code(s) 3956

Synonyms none

Recommended Use Laboratory chemicals. Industrial (not for food or food contact use).

Company

LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620
USA

Emergency Telephone Number

24 Hour Emergency Number (CHEM-TEL):
USA, Canada, Puerto Rico 1-800-255-3924
Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

POISON! Cannot be made non-poisonous.
May be fatal or cause blindness if swallowed.
Flammable liquid and vapor
Harmful if inhaled or absorbed through skin
May cause drowsiness and dizziness
Vapor is irritating to eyes and respiratory tract
Vapors are heavier than air. Vapor may travel across the ground and reach remote ignition sources causing a flashback fire danger

Appearance Clear, colorless **Physical State** Liquid **Odor** Alcohol

Potential Health Effects

Principle Routes of Exposure Skin contact, Eye contact, Inhalation, and, Ingestion.

Acute Toxicity

Eyes Irritating to eyes. Vapors irritate the eyes.

Skin Irritating to skin. May be absorbed through the skin in harmful amounts. Prolonged skin contact may defat the skin and produce dermatitis.

Inhalation Irritating to respiratory system. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

Ingestion May be fatal or cause blindness if swallowed. Ingesting even small amounts ~30-250mL may be fatal. May cause drowsiness and dizziness. Ingestion can cause headaches, gastritis, blindness, and in acute cases death.

Chronic Effects

Inhalation, ingestion, or skin absorbtion of methanol can cause blindness Repeated or prolonged exposure may cause central nervous system damage May cause adverse liver effects Prolonged exposure may cause chronic effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical Name	CAS-No	Weight %
2-Naphthalenol, 1-(2-pyridinylazo)-	85-85-8	0.1
Methyl alcohol	67-56-1	>99

4. FIRST AID MEASURES

General Advice Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Show this safety data sheet to the doctor in attendance.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. Immediate medical attention is required.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Immediate medical attention is required.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. Call a physician immediately.

Ingestion Do not induce vomiting without medical advice. If accidentally swallowed obtain immediate medical attention. Immediate medical attention is required.

Protection of First-aiders Use personal protective equipment. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. FIRE-FIGHTING MEASURES

Flammable Properties Highly flammable liquid and vapor. Vapors may cause flash fire or explosion.

Flash Point 12°C (53.6°F) CC for 100% Methanol

Suitable Extinguishing Media Water spray, dry chemical, carbon dioxide (CO_2), or foam.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Explosion Data

Specific Hazards Arising from the Chemical

Vapors may travel to source of ignition and flash back. Flash back possible over considerable distance.

NFPA	**Health Hazard** 2	**Flammability** 3	**Stability** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 3	**Flammability** 3	**Stability** 1	

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Refer to Section 8. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

Methods for Containment A vapor suppressing foam may be used to reduce vapors. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Do not flush to sewer.

Methods for Cleaning Up Minimize the amount spilled and supress resultant vapors. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling

Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not ingest. Do not eat, drink, or smoke when using this product. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

Storage

Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from heat and sources of ignition. Store away from strong acids and oxidizers. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Naphthalenol, 1-(2-pyridinylazo)- 85-85-8	None Known	None Known	None Known
Methyl alcohol 67-56-1	250	TWA: 200 ppm TWA: 260 mg/m^3	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m^3 STEL: 250 ppm STEL: 325 mg/m^3

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures

Showers
Eyewash stations
Ventilation systems. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and Body Protection Wear protective gloves/clothing. Wear latex or nitrile gloves. Neoprene gloves.

Respiratory Protection Use only with adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene Measures Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colorless
Physical State Liquid
Flash Point 12°C (53.6°F) CC for 100% Methanol
Boiling Point/Range 64.7°C (148.5°F) for Methanol

Explosion Limits
Upper 36%
Lower 7.3%

Specific Gravity 0.79
Vapor Pressure 127 mmHg @ 25°C (Methanol)

Odor Alcohol
pH Not applicable
Autoignition Temperature 240°C (464°F) for Methanol

Flammability Limits in Air
Upper 36%
Lower 6%

Water Solubility Completely soluble
Vapor Density 1.1 @ 20°C (Air=1)

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions of use and storage.

Incompatible Products Strong oxidizing agents. Contact with metals (aluminum, zinc, tin) may release hydrogen gas.

Conditions to Avoid Heat, flames and sparks.

Hazardous Decomposition Products Carbon oxides (COx). Formaldehyde.

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Naphthalenol, 1-(2-pyridinylazo)-	None Known	None Known	None Known
Methyl alcohol	5628 mg/kg (Rat)	15800 mg/kg (Rabbit)	64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h

Chronic Toxicity

Chronic Toxicity Inhalation, ingestion, or skin absorbtion of methanol can cause blindness. Repeated or prolonged exposure may cause central nervous system damage. May cause adverse liver effects. Prolonged exposure may cause chronic effects.

Chemical Name	ACGIH	IARC	NTP	OSHA
2-Naphthalenol, 1-(2-pyridinylazo)-	None Known	None Known	None Known	None Known
Methyl alcohol	None Known	None Known	None Known	None Known

Chemical Name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
2-Naphthalenol, 1-(2-pyridinylazo)-	None Known	None Known	None Known
Methyl alcohol	None Known	None Known	None Known

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
2-Naphthalenol, 1-(2-pyridinylazo)-	None Known	None Known	None Known	None Known
Methyl alcohol	None Known	LC50 13500 - 17600 mg/L Lepomis macrochirus 96 h LC50 18 - 20 mL/L Oncorhynchus mykiss 96 h LC50 19500 - 20700 mg/L Oncorhynchus mykiss 96 h LC50= 28200 mg/L Pimephales promelas 96 h LC50> 100 mg/L Pimephales promelas 96 h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	None Known

Persistence and Degradability Based on components, product is expected to be readily biodegradable. In the atmosphere, methanol will be photo-oxidized relatively quickly; the half-life ranges between 3 and 30 days. In soil, surface or groundwater, rapid biodegradation is expected with the half-life ranging from 1 to 7 days.

Bioaccumulation/Accumulation This material is not expected to significantly bioaccumulate.

Mobility Will likely be mobile in the environment due to its water solubility.

Chemical Name	Log Pow
2-Naphthalenol, 1-(2-pyridinylazo)-	None Known
Methyl alcohol	= -0.77

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Should not be released into the environment. Dispose of contents/container in accordance with local regulation.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
2-Naphthalenol, 1-(2-pyridinylazo)- - 85-85-8	None Known	None Known	None Known	None Known
Methyl alcohol - 67-56-1	None Known	None Known	None Known	None Known

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name METHANOL
Hazard Class 3
UN-No 1230
Packing Group II

IATA

UN-No 1230
Proper Shipping Name METHANOL
Hazard Class 3
Subsidiary Class 6.1
Packing Group II

IMDG/IMO

Proper Shipping Name	METHANOL
Hazard Class	3
Subsidiary Class	6.1
UN-No	1230
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2-Naphthalenol, 1-(2-pyridinylazo)- 85-85-8 (0.1)	Present	X	X	ENCS	X	KECL	PICCS	X
Methyl alcohol 67-56-1 (>99)	Present	X	X	(2)-201	X	KECL	X	X

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
2-Naphthalenol, 1-(2-pyridinylazo)-	85-85-8	0.1	None Known
Methyl alcohol	67-56-1	>99	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
2-Naphthalenol, 1-(2-pyridinylazo)- 85-85-8 (0.1)	None Known	None Known	None Known	None Known
Methyl alcohol 67-56-1 (>99)	None Known	None Known	None Known	None Known

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs: .

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
2-Naphthalenol, 1-(2-pyridinylazo)-	85-85-8	0.1	None Known	None Known	None Known	None Known
Methyl alcohol	67-56-1	>99	Present	Group IV	None Known	None Known

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
2-Naphthalenol, 1-(2-pyridinylazo)-	None Known	None Known
Methyl alcohol	5000 lb	None Known

U.S. State Regulations

California Proposition 65
WARNING! This product contains Methanol a chemical know to the State of California to cause birth defects or other reproductive harm

Chemical Name	CAS-No	California Prop. 65
2-Naphthalenol, 1-(2-pyridinylazo)-	85-85-8	None Known
Methyl alcohol	67-56-1	Developmental

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
2-Naphthalenol, 1-(2-pyridinylazo)-	None Known	None Known	None Known	None Known	None Known
Methyl alcohol	X	X	X	X	X

International Regulations

Mexico - Grade

Chemical Name	Carcinogen Status	Exposure Limits
2-Naphthalenol, 1-(2-pyridinylazo)-	None Known	None Known
Methyl alcohol	None Known	Mexico: TWA 200 ppm Mexico: TWA 260 mg/m³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

Component	WHMIS Hazard Class
2-Naphthalenol, 1-(2-pyridinylazo)- 85-85-8 (0.1)	Not determined
Methyl alcohol 67-56-1 (>99)	1 % B2 D1B D2A D2B

Chemical Name	NPRI
Methyl alcohol	X

Legend
X - Listed

16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol
			

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Revision Note
Update to Format
Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS