



Issuing Date 12/18/2012

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name AMMONIA #2

Product Code(s) 3979

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

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**

Toxic if swallowed
Harmful if swallowed
May be harmful if inhaled
May be harmful if absorbed through skin
May cause skin, eye, and respiratory tract irritation

Appearance Light orange, Pale amber**Physical State** Liquid**Odor** None**Potential Health Effects****Principle Routes of Exposure** Ingestion.**Acute Toxicity****Eyes**

May cause irritation. May cause redness, itching, and pain.

Skin

May be absorbed through the skin in harmful amounts. May cause irritation.

Inhalation

May be harmful if inhaled. May cause irritation of respiratory tract.

Ingestion

Toxic if swallowed. Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Chronic Effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-	13755-38-9	0.25
Phosphate salt	-	1-5
Water	7732-18-5	95-100

Ingredients not specifically listed by name are proprietary to the LaMotte Company, registered under the State of New Jersey Trade Secret protection law, assigned the NJTSRN#80100291-5039p, and may be disclosed only in a medical emergency.

4. FIRST AID MEASURES

General Advice	Do not get in eyes, on skin, or on clothing.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Immediate medical attention is required.
Skin Contact	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Seek immediate medical attention/advice.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms occur, begin administration of antidote kit and oxygen using planned instructions. If not breathing, give artificial respiration and contact emergency personnel.
Ingestion	If ingested, initiate cyanide antidote administration and give oxygen. Give activated charcoal. Immediate medical attention is required. Call a physician or Poison Control Center immediately.
Protection of First-aiders	Use personal protective equipment. See Section 8 for more detail. 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	Not a fire hazard.			
Flash Point	Not applicable			
Suitable Extinguishing Media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray.			
Explosion Data				
NFPA	Health Hazard 2	Flammability 0	Stability 0	Physical and Chemical Hazards -
HMIS	Health Hazard 2	Flammability 0	Stability 0	

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment. Refer to Section 8.
Methods for Containment	Dispose according to federal, state, and local regulations. Soak up with inert absorbent material, containerize, and hold for disposal.
Methods for Cleaning Up	Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not ingest. Do not eat, drink, or smoke when using this product.
Storage	Keep containers tightly closed in a dry, cool, and well-ventilated place. Protect from light. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)- 13755-38-9	TWA: 1 mg/m ³	TWA: 5 mg/m ³	IDLH: 25 mg/m ³ except Hydrogen cyanide TWA: 1 mg/m ³

Phosphate salt	None Known	None Known	None Known
Water 7732-18-5	None Known	None Known	None Known

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures

Showers
Eyewash stations
Ventilation systems.

Personal Protective Equipment**Eye/Face Protection**

Safety glasses with side-shields.

Skin and Body Protection

Wear protective gloves/clothing.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Light orange Pale amber

Odor

None

Physical State

Liquid

pH

9

Flash Point

Not applicable

Boiling Point/Range

No information available

Vapor Pressure

No information available

Vapor Density

No information available

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions of use and storage.

Incompatible Products

Strong oxidizing agents. Strong acids.

Conditions to Avoid

Incompatible products. Excessive heat.

Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions -. Carbon oxides (COx). Nitrogen oxides (NOx). Hydrogen cyanide.

Hazardous Reactions

Reacts with acids to liberate toxic and flammable hydrogen cyanide gas.

Hazardous Polymerization

Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-	99 mg/kg	None Known	None Known
Phosphate salt	None Known	None Known	None Known
Water	90 mL/kg (Rat)	None Known	None Known

Chronic Toxicity

Chemical Name	ACGIH	IARC	NTP	OSHA
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-	None Known	None Known	None Known	None Known
Phosphate salt	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-	None Known	None Known	None Known
Phosphate salt	None Known	None Known	None Known
Water	None Known	None Known	None Known

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-	None Known	None Known	None Known	None Known
Phosphate salt	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known

Persistence and Degradability No information available.

Bioaccumulation/Accumulation No information available.

Mobility No information available.

Chemical Name	Log Pow
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-	None Known
Phosphate salt	None Known
Water	None Known

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)- - 13755-38-9	None Known	None Known	None Known	None Known
Phosphate salt -	None Known	None Known	None Known	None Known
Water - 7732-18-5	None Known	None Known	None Known	None Known

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name
Hazard Class

TOXIC LIQUID, INORGANIC, N.O.S.(0.25% Sodium Nitroferricyanide)
6.1

UN-No 3287
Packing Group III

IATA

UN-No 3287
Proper Shipping Name TOXIC LIQUID, INORGANIC, N.O.S.(0.25% Sodium Nitroferricyanide)
Hazard Class 6.1
Packing Group III

IMDG/IMO

Proper Shipping Name TOXIC LIQUID, INORGANIC, N.O.S.(0.25% Sodium Nitroferricyanide)
Hazard Class 6.1
UN-No 3287
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-13755-38-9 (0.25)	TSCA	DSL	EINECS/ELINCS	ENCS	X	KECL	X	X
Phosphate salt (1-5)	Present	X	X	1-452	X	KE-12167	X	X
Water 7732-18-5 (95-100)	Present	X	X	ENCS	X	KE-35400	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 %
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-	13755-38-9	0.25	1.0
Phosphate salt		1-5	None Known
Water	7732-18-5	95-100	None Known

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard No
Fire Hazard No
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
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)-13755-38-9 (0.25)	None Known	None Known	None Known	None Known
Phosphate salt (1-5)	None Known	None Known	None Known	None Known

Water 7732-18-5 (95-100)	None Known	None Known	None Known	None Known
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Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)- Phosphate salt	13755-38-9	0.25	None Known	None Known	None Known	None Known
Water	7732-18-5	95-100	None Known	None Known	None Known	None Known

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)- Phosphate salt	None Known	None Known
Water	None Known	None Known

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

Chemical Name	CAS-No	California Prop. 65
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)- Phosphate salt	13755-38-9	None Known
Water	7732-18-5	None Known

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)- Phosphate salt	None Known	X	X	None Known	X
Water	None Known	None Known	None Known	None Known	None Known

International Regulations**Mexico - Grade**

Chemical Name	Carcinogen Status	Exposure Limits
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)- Phosphate salt	None Known	Mexico: TWA= 1 mg/m ³ Mexico: TWA= 5 mg/m ³
Water	None Known	None Known

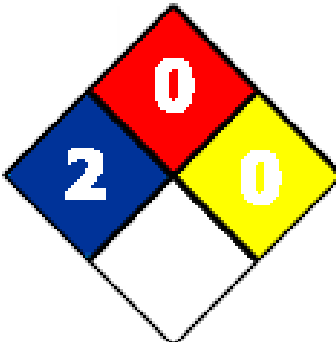


Canada

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
Ferrate(2-), pentakis(cyano-C)nitrosyl-, disodium, dihydrate, (OC-6-22)- 13755-38-9 (0.25) Phosphate salt (1-5)	1 % Uncontrolled product according to WHMIS classification criteria

Water 7732-18-5 (95-100)	Uncontrolled product according to WHMIS classification criteria
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16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol						
	<table><tr><td>Health Hazard</td><td>2</td></tr><tr><td>Fire Hazard</td><td>0</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	2	Fire Hazard	0	Reactivity	0		
Health Hazard	2								
Fire Hazard	0								
Reactivity	0								

Prepared By

Regulatory Affairs Department

Issuing Date

12/18/2012

Revision Date

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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