

Issuing Date 5/29/2012

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name MO BUFFER

Product Code(s) 3997

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**WARNING!****Emergency Overview**

Corrosive

May cause burns to eyes, skin, and mucous membranes

Harmful if swallowed

May be harmful if absorbed through the skin

Appearance Clear, Colorless**Physical State** Liquid**Odor** Vinegar-like**Potential Health Effects****Principle Routes of Exposure**

Inhalation, skin contact, and ingestion

Acute Toxicity**Eyes**

Irritating to eyes. May cause burns. Causes irritation, redness, and pain.

Skin

Contact causes severe skin irritation and possible burns. Symptoms can include redness, itching, and pain. May be absorbed through the skin in harmful amounts.

Inhalation

May be harmful if inhaled. Irritating to the respiratory system; may cause symptoms that include coughing and shortness of breath.

Ingestion

Harmful if swallowed. Can burn mouth, throat, stomach, and GI tract.

Chronic Effects**Aggravated Medical Conditions**

Hypersensitivity may occur in those with preexisting skin disorders. Respiratory disorders. Preexisting eye disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Glycine, N,N`-1,2-cyclohexanediylbis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)	63451-33-2	0.5
Water	7732-18-5	to 100%
Acetic acid	64-19-7	30-40
Acetate, sodium, trihydrate	6131-90-4	40

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	Immediately flush eyes with gentle stream of water for at least 15 minutes, occasionally lifting upper and lower eyelids. Call a physician immediately.
Skin Contact	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Consult a physician.
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. Drink plenty of water. Clean mouth with water. Call a physician immediately. Never give anything by mouth to an unconscious person.
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 , water spray or alcohol-resistant foam.			
Explosion Data				
NFPA	Health Hazard 2	Flammability 1	Stability 0	Physical and Chemical Hazards -
HMIS	Health Hazard 2	Flammability 1	Stability 0	

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment. Refer to Section 8. Avoid contact with skin, eyes and inhalation of vapors.
Methods for Containment	Absorb/Cover spill with sodium bicarbonate or sodium carbonate to neutralize, then place in a chemical waste container for later disposal. Dispose according to federal, state, and local regulations.
Methods for Cleaning Up	Keep in suitable and closed containers for disposal. 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.

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from heat and incompatibles. Keep away from direct sunlight. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycine, N,N'-1,2-cyclohexanediybis[N-(ca rboxymethyl)-, magnesium sodium salt (1:1:2) 63451-33-2	None Known	None Known	None Known
Water 7732-18-5	None Known	None Known	None Known
Acetic acid 64-19-7	= 15 ppm STEL TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m ³	IDLH: 50 ppm TWA: 25 mg/m ³ TWA: 10 ppm STEL: 15 ppm STEL: 37 mg/m ³
Acetate, sodium, trihydrate 6131-90-4	None Known	None Known	None Known

Personal Protective Equipment

Eye/Face Protection

Safety glasses with side-shields.

Skin and Body Protection

Wear protective gloves/clothing. Impervious clothing. Impervious gloves.

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	Clear Colorless	Odor	Vinegar-like
Physical State	Liquid	pH	4.0 - 5.0
Flash Point	Not applicable	Autoignition Temperature	No information available
Boiling Point/Range	No information available		

Vapor Pressure	No information available	Vapor Density	No information available
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10. STABILITY AND REACTIVITY

Stability Stable under normal conditions of use and storage.

Incompatible Products Strong acids. Oxidizing agents. Metals. Alkalis.

Conditions to Avoid Incompatible products. Ignitions sources - heat, sparks and open flames. Do not freeze.

Hazardous Decomposition Products Carbon oxides (COx). Sodium oxides.

Hazardous Reactions Thermal decomposition may form CO/CO₂ May react with metals to produce flammable hydrogen gas.

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)]	None Known	None Known	None Known
Water	90 mL/kg (Rat)	None Known	None Known
Acetic acid	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 1 h
Acetate, sodium, trihydrate	3530 mg/kg (Rat)	10 g/kg (Rabbit)	30 g/m ³ (Rat) 1 h

Chronic Toxicity

Chemical Name	ACGIH	IARC	NTP	OSHA
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)]	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known
Acetic acid	None Known	None Known	None Known	None Known
Acetate, sodium, trihydrate	None Known	None Known	None Known	None Known

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)]	None Known	None Known	None Known
Water	None Known	None Known	None Known
Acetic acid	None Known	None Known	None Known
Acetate, sodium, trihydrate	None Known	None Known	None Known

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Glycine, N,N'-1,2-cyclohexanediylbis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)]	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known
Acetic acid	None Known	LC50= 75 mg/L Lepomis macrochirus 96 h LC50= 88 mg/L Pimephales promelas 96 h	EC50 = 8.8 mg/L 15 min EC50 = 8.8 mg/L 25 min EC50 = 8.8 mg/L 5 min	EC50 = 95 mg/L 24 h
Acetate, sodium, trihydrate	None Known	None Known	None Known	None Known

Persistence and Degradability

Based on components, product is expected to be readily biodegradable.

Chemical Name	Log Pow
Glycine, N,N'-1,2-cyclohexanediylbis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)]	None Known
Water	None Known
Acetic acid	= -0.31 20 °C
Acetate, sodium, trihydrate	None Known

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with sodium bicarbonate/sodium carbonate, add slurry to large volume of water to dilute, rinse to drain with excess water.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Glycine, N,N'-1,2-cyclohexanediylbis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2) - 63451-33-2	None Known	None Known	None Known	None Known
Water - 7732-18-5	None Known	None Known	None Known	None Known
Acetic acid - 64-19-7	None Known	None Known	None Known	None Known
Acetate, sodium, trihydrate - 6131-90-4	None Known	None Known	None Known	None Known

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	ACETIC ACID SOLUTION >10%, <50% ACID
Hazard Class	8
UN-No	2790
Packing Group	III
Reportable Quantity (RQ)	5000

IATA

UN-No	2790
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Proper Shipping Name ACETIC ACID SOLUTION >10%, <50% ACID
Hazard Class 8
Packing Group III

IMDG/IMO

Proper Shipping Name ACETIC ACID SOLUTION >10%, <50% ACID
Hazard Class 8
UN-No 2790
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2) 63451-33-2 (0.5)	Present	X	X	ENCS	IECSC	KECL	PICCS	AICS
Water 7732-18-5 (to 100%)	Present	X	X	ENCS	X	KE-35400	X	X
Acetic acid 64-19-7 (30-40)	Present	X	X	2-688	X	KE-00013	X	X
Acetate, sodium, trihydrate 6131-90-4 (40)	TSCA	DSL	EINECS/ELINCS	2-692	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 does not contain any 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 %
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)	63451-33-2	0.5	None Known
Water	7732-18-5	to 100%	None Known
Acetic acid	64-19-7	30-40	None Known
Acetate, sodium, trihydrate	6131-90-4	40	None Known

SARA 311/312 Hazard Categories

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

Clean Water Act

This product contains the following substances which are regulated 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
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2) 63451-33-2 (0.5)	None Known	None Known	None Known	None Known

Water 7732-18-5 (to 100%)	None Known	None Known	None Known	None Known
Acetic acid 64-19-7 (30-40)	5000 lb	None Known	None Known	X
Acetate, sodium, trihydrate 6131-90-4 (40)	None Known	None Known	None Known	None Known

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 Depleters	Class 2 Ozone Depleters
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)	63451-33-2	0.5	None Known	None Known	None Known	None Known
Water	7732-18-5	to 100%	None Known	None Known	None Known	None Known
Acetic acid	64-19-7	30-40	None Known	Group II	None Known	None Known
Acetate, sodium, trihydrate	6131-90-4	40	None Known	None Known	None Known	None Known

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)	None Known	None Known
Water	None Known	None Known
Acetic acid	5000 lb	None Known
Acetate, sodium, trihydrate	None Known	None Known

U.S. State Regulations

Chemical Name	CAS-No	California Prop. 65
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)	63451-33-2	None Known
Water	7732-18-5	None Known
Acetic acid	64-19-7	None Known
Acetate, sodium, trihydrate	6131-90-4	None Known

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)	None Known	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known	None Known
Acetic acid	X	X	X	None Known	X
Acetate, sodium, trihydrate	None Known	None Known	None Known	None Known	None Known

International Regulations**Mexico - Grade**

Chemical Name	Carcinogen Status	Exposure Limits
Glycine, N,N'-1,2-cyclohexanediybis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2)	None Known	None Known
Water	None Known	None Known

Acetic acid	None Known	Mexico: TWA= 25 mg/m ³ Mexico: TWA= 10 ppm
Acetate, sodium, trihydrate	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
Glycine, N,N'-1,2-cyclohexanediylbis[N-(carboxymethyl)-, magnesium sodium salt (1:1:2) 63451-33-2 (0.5)	Not determined
Water 7732-18-5 (to 100%)	Uncontrolled product according to WHMIS classification criteria
Acetic acid 64-19-7 (30-40)	1 % B3 E D2B
Acetate, sodium, trihydrate 6131-90-4 (40)	Uncontrolled product according to WHMIS classification criteria



16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0		
Health Hazard	2								
Fire Hazard	1								
Reactivity	0								

Prepared By Regulatory Affairs Department
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 Revision Note
 Initial Release
 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