



MSDS

P.O. Box 329 - 802 Washington Avenue Chestertown, MD 21620 - USA

MATERIAL SAFETY DATA SHEET

TELEPHONE # FOR INFORMATION 410 778-3100

24 HOUR EMERGENCY NUMBER (CHEM-TEL): USA, Canada, Puerto Rico 800-255-3924;

Outside North American Continent 813-248-0585 (call Collect)

1. Product Identification

Product Code: 3997

Product Description: Mo Buffer

Manufactured By: LaMotte Company

802 Washington Avenue

Chestertown, MD 21620

2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	64-19-7 Acetic Acid	37	10 ppm	25 mg/cubic m
Yes	6131-90-4 Sodium Acetate, trihydrate(TSCA CAS#127-09-3, anhydrous)	40	N/E	N/E
Yes	63451-33-2 Magnesium Disodium CDTA	0.5	N/E	N/E
No	7732-18-5 Water	to 100%		

3. Hazards Overview

Primary Route Of Entry: Ingestion Inhalation Skin

May irritate eyes, nose, skin.

HMIS Hazard

Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least

Health: 1 Flammability: 0 Reactivity: 0

Carcinogenicity: None

Other Health Related Comments:

Product Code: 3997

Product Description: Mo Buffer

4. First Aid Measures

Eye Contact: Flush thoroughly with water. Consult physician.

Skin Contact: Flush thoroughly with water. Wash with soap and water.

Ingestion: Drink 1 - 2 glasses of water. Consult physician.

Inhalation: Remove to fresh air.

5. Fire Fighting Measures

Flash Point (Method Used): N/A

LEL: N/A

UEL: N/A

Extinguishing Media: Not a fire hazard

Special Fire Fighting Procedures: N/A

Unusual Fire & Explosion Hazard: N/A

6. Accidental Release Measures

Mop up carefully. Flush down drain with excess water.

7. Handling & Storage

Store in cool, dry, storage area away from incompatible materials.

8. Exposure Controls/Personal Protection

Ventilation

Normal

Protection When Handling

Gloves Eye Protection Lab Coat

Work/Hygenic Practices: N/A

9. Physical & Chemical Properties

Appearance: Clear Colorless Liquid

Solubility In Water: Soluble

Odor: Vinegar

pH: 4 - 5

Vapor Density: Unknown

Vapor Pressure: Unknown

Boiling Point: Unknown

Melting Point: N/A

10. Stability & Reactivity

Stable: Yes

Conditions To Avoid: Temperature extremes

Incompatibility (Materials To Avoid): N/A

Hazardous Decomposition Products: CO_x

11. Toxicological Information

oral rat LD50: 3310mg/kg for acetic acid, concentrated.

Target Organs: N/A

Product Code: 3997

Product Description: Mo Buffer

12. Ecological Information

Information Not Yet Available

13. Disposal Considerations

Pour down drain with excess water. Dispose according to federal, state and local regulations.

14. Transportation Information

Proper Shipping Name:

DOT: ACETIC ACID SOLUTION 10-50% ACID

IATA: ACETIC ACID SOLUTION 10-50% ACID

Hazard Class/Div:

DOT: 8

IATA: 8

UN: 2790

Packing Group: III

15. Regulatory Information

Chemical Inventory Status

Hazard	Ingredient	USA	Europe	--- Canada ---		Australia	Japan
		TSCA	EC	DSL	NDSL		
Yes	64-19-7 Acetic Acid	Yes	Yes	Yes	No	Yes	Yes
Yes	127-09-3 Sodium Acetate, anhydrous	Yes	Yes	Yes	No	Yes	Yes
Yes	63451-33-2 N,N'-1, 2-Cyclohexanediylbis (N-carboxymethyl)glycine, Magnesium Disodium salt	Yes	No	No	No	No	No
No	7732-18-5 Distilled Water	Yes	Yes	Yes	No	Yes	Yes

Federal, State, & International Regulations

Ingredient	--- SARA 302 ---		----- SARA 313 -----		CERCLA	RCRA 261.33	TSCA 8(D)
	RQ	TPQ	Listed	Chemical Category			
64-19-7 Acetic Acid	No	No	No	No	5000	No	No
127-09-3 Sodium Acetate, anhydrous	No	No	No	No	No	No	No
63451-33-2 N,N'-1, 2-Cyclohexanediylbis (N-carboxymethyl)glycine, Magnesium Disodium salt	No	No	No	No	No	No	No
7732-18-5 Distilled Water	No	No	No	No	No	No	No

Product Code: 3997

Product Description: Mo Buffer

--- SARA 311/312 ---

----- Australia -----

Hazard Categories

**Hazchem
Code**

**Poison
Schedule**

**This MSDS Is
WHMIS Compliant**

Ingredient

Acute

Chronic

Fire

Pressure

Reactivity

64-19-7
Acetic Acid

Yes

Yes

Yes No

Yes

2P

S6

127-09-3
Sodium Acetate, anhydrous

Yes

No

No No

No

None Allocated

None Allocated

63451-33-2
N,N'-1, 2-Cyclohexanediybis (N-carboxymethyl)glycine, Magnesium Disodium salt

Yes

No

No No

No

None Allocated

None Allocated

7732-18-5
Distilled Water

No

No

No No

No

None Allocated

None Allocated

**product 3997
as a whole**

Yes

Yes

Yes No

Yes

no info

no info

Yes

16. Other Information

Prepared By: IP, Regulatory Affairs Department

Revised: 2/28/2006



MSDS

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MATERIAL SAFETY DATA SHEET

TELEPHONE # FOR INFORMATION 410 778-3100

24 HOUR EMERGENCY NUMBER (CHEM-TEL): USA, Canada, Puerto Rico 800-255-3924;

Outside North American Continent 813-248-0585 (call Collect)

1. Product Identification

Product Code: 6486

Product Description: Molybdenum Indicator Powder

Manufactured By: LaMotte Company

802 Washington Avenue

Chestertown, MD 21620

2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	65208-41-5 Calcium Thioglycolate, trihydrate	100	N/E	N/E

3. Hazards Overview

Primary Route Of Entry: Eye Skin Inhalation

Irritating to eyes, skin and nose especially under humid conditions.

HMIS Hazard

Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least

Health: 2 Flammability: 0 Reactivity: 0

Carcinogenicity: None:

Other Health Related Comments:

Product Code: 6486

Product Description: Molybdenum Indicator Powder

4. First Aid Measures

Eye Contact: Immediately flush with water for 15 minutes. If irritation, pain, or swelling persists consult a physician.

Skin Contact: Immediately flush with water. Remove affected clothing and rinse skin thoroughly. Wash with soap and water.

Ingestion: Do not induce vomiting. Rinse out mouth, drink a glass of water and consult physician.

Inhalation: Remove to fresh air.

5. Fire Fighting Measures

Flash Point (Method Used): N/A

LEL: N/A

UEL: N/A

Extinguishing Media: Dry chemical, alcohol-resistant foam, CO2

Special Fire Fighting Procedures: Firefighters wear self-contained breathing apparatus

Unusual Fire & Explosion Hazard: May emit toxic fumes under fire conditions.

6. Accidental Release Measures

Avoid raising or breathing dust. Sweep up. In fume hood, dissolve in large volume of water and neutralize with dilute hydrochloric acid. Flush down drain with excess water.

7. Handling & Storage

Store tightly closed in cool, dry, storage area away from such incompatible materials as oxidizers. Avoid inhaling dust and handle in fume hood if possible. (Decomposition in presence of moisture produces unpleasant hydrogen sulfide odors).

8. Exposure Controls/Personal Protection

Ventilation

Mechanical

Protection When Handling

Gloves Eye Protection Lab Coat

Work/Hygenic Practices: Avoid contact with skin and clothing. Wash after handling.

9. Physical & Chemical Properties

Appearance:	White Powder	Vapor Density:	N/A
Solubility In Water:	Soluble	Vapor Pressure:	N/A
Odor:	Unpleasant (skunk)	Boiling Point:	N/A
pH:	11 (0.1g in 10mL water)	Melting Point:	Decomp. >200 deg C

10. Stability & Reactivity

Stable:	Yes
Conditions To Avoid:	Heat, moisture, air
Incompatibility (Materials To Avoid):	Oxidizers
Hazardous Decomposition Products:	hydrogen sulfide gas

11. Toxicological Information

May cause eye, skin, or respiratory irritation on contact or inhalation. Prolonged exposure can cause hypoglycemia.

Target Organs: Eyes Respiratory System Skin Thyroid

Product Code: 6486

Product Description: Molybdenum Indicator Powder

12. Ecological Information

Information Not Yet Available

13. Disposal Considerations

Dissolve in large volume of water. In fume hood, neutralize with dilute hydrochloric acid. Flush down drain with excess water. Dispose according to federal, state and local regulations.

14. Transportation Information

Proper Shipping Name:

DOT: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.
(CALCIUM THIOGLYCOLATE)

IATA: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.
(CALCIUM THIOGLYCOLATE)

Hazard Class/Div:

DOT: 8

IATA: 8

UN: 3262

Packing Group: III

15. Regulatory Information

Chemical Inventory Status

Hazard	Ingredient	USA TSCA	Europe EC	--- Canada --- DSL NDSL		Australia	Japan
Yes	814-71-1	Yes	Yes	Yes	No	Yes	Yes

Federal, State, & International Regulations

Ingredient	--- SARA 302 ---		----- SARA 313 -----		CERCLA	RCRA 261.33	TSCA 8(D)
	RQ	TPQ	Listed	Chemical Category			
814-71-1 Calcium Thioglycolate, anhydrous	No	No	No	No	No	No	No

Product Code: 6486

Product Description: Molybdenum Indicator Powder

--- SARA 311/312 ---

----- Australia -----

Hazard Categories

**Hazchem
Code**

**Poison
Schedule**

**This MSDS Is
WHMIS Compliant**

Ingredient **Acute** **Chronic** **Fire** **Pressure** **Reactivity**

814-71-1 Yes Yes No No No None Allocated None Allocated
Calcium Thioglycolate, anhydrous

product Yes Yes No No No None Allocated None Allocated Yes
6486
as a whole

16. Other Information

Avoid use in humid conditions. Keep tightly closed.

Prepared By: IP, Regulatory Affairs Department

Revised: 7/20/2006



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MATERIAL SAFETY DATA SHEET

TELEPHONE # FOR INFORMATION 410 778-3100

24 HOUR EMERGENCY NUMBER (CHEM-TEL): USA, Canada, Puerto Rico 800-255-3924;

Outside North American Continent 813-248-0585 (call Collect)

1. Product Identification

Product Code: 6485

Product Description: Molybdenum Oxidizing Reagent

Manufactured By: LaMotte Company

802 Washington Avenue

Chestertown, MD 21620

2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	7727-21-1 Potassium Persulfate	4	0.1 mg/cubic m	0.1 mg/cubic m
No	7732-18-5 Water	to 100%		

3. Hazards Overview

Primary Route Of Entry: Skin Ingestion

May be irritating to skin. May be harmful if swallowed.

HMIS Hazard

Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least

Health: 1 Flammability: 0 Reactivity: 1

Carcinogenicity: None:

Other Health Related Comments:

Product Code: 6485

Product Description: Molybdenum Oxidizing Reagent

4. First Aid Measures

Eye Contact: Flush with water for 15 minutes.

Skin Contact: Flush with water. Wash skin with soap and water.

Ingestion: Drink water. Consult physician.

Inhalation: N/A

5. Fire Fighting Measures

Flash Point (Method Used): N/A

LEL: N/A

UEL: N/A

Extinguishing Media: Not a fire hazard

Special Fire Fighting Procedures: Use water to keep fire-exposed containers cool.

Unusual Fire & Explosion Hazard: Potassium persulfate is a strong oxidizer. Closed containers may explode when heated. Spills of #6485 on combustibles (paper, cloth) may cause ignition.

6. Accidental Release Measures

Mop up and flush down drain with excess water. Wash spill area with water.

7. Handling & Storage

Store in cool, dry, storage area away from incompatible materials.

8. Exposure Controls/Personal Protection

Ventilation

Normal

Protection When Handling

Eye Protection Gloves Lab Coat

Work/Hygenic Practices: Avoid contact with skin. Wash after handling.

9. Physical & Chemical Properties

Appearance:	Clear Colorless Liquid	Vapor Density:	<1 (Air=1)
Solubility In Water:	Soluble	Vapor Pressure:	<17 mm Hg @ 20 deg C
Odor:	None	Boiling Point:	>100 deg C
pH:	5	Melting Point:	N/A

10. Stability & Reactivity

Stable:	Yes
Conditions To Avoid:	Heat
Incompatibility (Materials To Avoid):	Strong reducing agents
Hazardous Decomposition Products:	SOx

11. Toxicological Information

Oral rat LD50: 802 mg/kg for potassium persulfate.

Target Organs: Skin

Product Code: 6485

Product Description: Molybdenum Oxidizing Reagent

12. Ecological Information

Information Not Yet Available

13. Disposal Considerations

Flush down drain with excess water. Dispose according to federal, state and local regulations.

14. Transportation Information

Proper Shipping Name:

DOT: OXIDIZING LIQUID, N.O.S.
(POTASSIUM PERSULFATE)

IATA: OXIDIZING LIQUID, N.O.S.
(POTASSIUM PERSULFATE)

Hazard Class/Div:

DOT: 5.1

IATA: 5.1

UN: 3139

Packing Group: III

15. Regulatory Information

Chemical Inventory Status

Hazard	Ingredient	USA	Europe	--- Canada ---		Australia	Japan
		TSCA	EC	DSL	NDSL		
Yes	7727-21-1 Potassium Persulfate	Yes	Yes	Yes	No	Yes	Yes
No	7732-18-5 Distilled Water	Yes	Yes	Yes	No	Yes	Yes

Federal, State, & International Regulations

Ingredient	--- SARA 302 ---		----- SARA 313 -----		CERCLA	RCRA 261.33	TSCA 8(D)
	RQ	TPQ	Listed	Chemical Category			
7727-21-1 Potassium Persulfate	No	No	No	No	No	No	No
7732-18-5 Distilled Water	No	No	No	No	No	No	No

Product Code: 6485

Product Description: Molybdenum Oxidizing Reagent

--- SARA 311/312 ---

----- Australia -----

Hazard Categories

**Hazchem
Code**

**Poison
Schedule**

**This MSDS Is
WHMIS Compliant**

Ingredient **Acute** **Chronic** **Fire** **Pressure** **Reactivity**

7727-21-1 Yes No Yes No Yes 2P None Allocated
Potassium Persulfate

7732-18-5 No No No No No None Allocated None Allocated
Distilled Water

product 6485 Yes No No No Yes 2P None Allocated Yes
as a whole

16. Other Information

Prepared By: IP, Regulatory Affairs Department

Revised: 3/2/2006
