

MATERIAL SAFETY DATA SHEET

MSDS3834

LaMOTTE COMPANY
PO BOX 329 - CHESTERTOWN - MARYLAND - 21620
TELEPHONE # FOR INFORMATION 410-778-3100

24 Hour Emergency Number (CHEM-TEL) 800-255-3924

1. PRODUCT IDENTIFICATION

Nitrogen Extracting Solution

Code Nr. 5702

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
Hydrochloric Acid	7647-01-0		0.8	C 7 mg/cubic m	C 5 ppm

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Magnifloc 905N (polyacrylamide flocculant)	9003-05-8	<0.1
Water to 100%		

4. PHYSICAL DATA

<i>Appearance:</i> Clear Colorless Liquid			
<i>Solubility in Water:</i> Soluble	<i>Odor:</i> None	<i>Boiling Point:</i> ca.100 deg C	<i>Melt. Point:</i> N/A
<i>Vapor Pressure:</i> ca.17 @20 C	<i>Vapor Density:</i> <1(Air=1)	<i>pH:</i> <1	

5. FIRE AND EXPLOSION DATA

<i>Flash Point (method used):</i> N/A	<i>Flammable Limit: LEL:</i> N/A	<i>UEL:</i> N/A
<i>Extinguishing Media:</i> Not a fire hazard		
<i>HMIS Hazard: Health - 1 Flammability - 0 Reactivity - 0</i> <i>Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least</i>		
<i>Special Fire Fighting Procedures:</i> N/A		
<i>Unusual Fire & Explosion Hazard:</i> N/A		

6. REACTIVITY DATA

<i>Stability:</i>	<i>Conditions to avoid:</i> Heat
<input checked="" type="checkbox"/> <i>Stable</i>	<i>Incompatibility (Materials to avoid):</i> N/A
<input type="checkbox"/> <i>Unstable</i>	<i>Hazardous Decomposition Products:</i> N/A

7. HEALTH HAZARD DATA

<i>Toxicity:</i> Unknown	
<i>Primary Route of Entry:</i>	<i>Carcinogenicity:</i>
<input type="checkbox"/> <i>Inhalation</i> <input checked="" type="checkbox"/> <i>Ingestion</i>	<input checked="" type="checkbox"/> <i>Skin</i> <input type="checkbox"/> <i>N/A</i>
<input checked="" type="checkbox"/> <i>None</i> <input type="checkbox"/> <i>NTP</i> <input type="checkbox"/> <i>OSHA</i> <input type="checkbox"/> <i>IARC</i>	
<i>Other Health Related Comments:</i>	
<i>Target Organs:</i> N/A	
<i>Signs and symptoms of exposure:</i> May irritate eyes and skin.	
<i>Medical Condition Aggravated by Exposure:</i> N/A	

8. EMERGENCY FIRST AID PROCEDURES

<i>Eye Contact:</i> Flush with water for 15 minutes. Consult physician if irritation persists.
<i>Ingestion:</i> Rinse mouth, drink glass of water. Consult physician.
<i>Inhalation:</i> N/A
<i>Skin Contact:</i> Flush with water. Remove affected clothing and wash skin with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

<i>Spill and Leak:</i> Cover spill with sodium bicarbonate. Scoop up neutralized slurry and wash down drain with excess water.
<i>Disposal:</i> Add slowly to a solution of soda ash and calcium hydroxide. Pour neutralized solution down drain with excess water. Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

<i>In Handling:</i>	<input checked="" type="checkbox"/> <i>Gloves</i>	<input checked="" type="checkbox"/> <i>Eye Protection</i>	<input type="checkbox"/> <i>N/A</i>	<input checked="" type="checkbox"/> <i>Other:</i> Lab Coat
<i>Ventilation</i>	<input checked="" type="checkbox"/> <i>Normal</i>	<input type="checkbox"/> <i>Mechanical</i>	<input type="checkbox"/> <i>Respiratory Protection</i>	
<i>Work/Hygienic Practices:</i> Avoid contact with skin and clothing.				

11. SPECIAL PRECAUTIONS

N/A	
DATE: 12/20/03	The above information is believed to be correct but does not claim to be all inclusive and should be used only as a guide.

This is a toxic chemical subject to reporting requirements of section 313 of EPCRA and 40CFR372.

MATERIAL SAFETY DATA SHEET

LaMOTTE COMPANY
PO BOX 329 - CHESTERTOWN - MARYLAND - 21620
TELEPHONE # FOR INFORMATION 410-778-3100

24 Hour Emergency Number (CHEM-TEL) 800-255-3924

1. PRODUCT IDENTIFICATION

Nitrogen Indicator Powder

Code Nr. 5703

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
Manganous Sulfate Monohydrate	10034-96-5	7785-87-7	1.5	C 5 mg/cubic m dust,as Mn	C 5 mg/cubic m dust,as Mn
Zinc Dust	7440-66-6		6	N/E	10 mg/cubic m
Barium Sulfate	7727-43-7		63	10mg/cubic m (dust)	10mg/cubic m (dust)
Sulfanilamide	63-74-1		<1	N/E	N/E
N-1-Naphthyl-ethylenediamine dihydrochloride	1465-25-4		<1	N/E	N/E

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Sugar	57-50-1	28

4. PHYSICAL DATA

<i>Appearance:</i> Off white Powder			
<i>Solubility in Water:</i> Partial	<i>Odor:</i> None	<i>Boiling Point:</i> N/A	<i>Melt. Point:</i> Unknown
<i>Vapor Pressure:</i> N/A	<i>Vapor Density:</i> N/A	<i>pH:</i> 6 (0.1g/10mL water)	

5. FIRE AND EXPLOSION DATA

<i>Flash Point (method used):</i> N/A	<i>Flammable Limit: LEL:</i> N/A	<i>UEL:</i> N/A
<i>Extinguishing Media:</i> Not a fire hazard		
<i>HMIS Hazard: Health - 1 Flammability - 0 Reactivity - 0 Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least</i>		
<i>Special Fire Fighting Procedures:</i> N/A		
<i>Unusual Fire & Explosion Hazard:</i> N/A		

6. REACTIVITY DATA

<i>Stability:</i>	<i>Conditions to avoid:</i> Heat, moisture
<input checked="" type="checkbox"/> <i>Stable</i>	<i>Incompatibility (Materials to avoid):</i> Strong acids
<input type="checkbox"/> <i>Unstable</i>	<i>Hazardous Decomposition Products:</i> N/A

7. HEALTH HAZARD DATA

<i>Toxicity:</i> Unknown	
<i>Primary Route of Entry:</i>	<input checked="" type="checkbox"/> <i>Inhalation</i> <input checked="" type="checkbox"/> <i>Skin</i> <input type="checkbox"/> <i>N/A</i>
	<i>Carcinogenicity:</i> <input checked="" type="checkbox"/> <i>None</i> <input type="checkbox"/> <i>NTP</i> <input type="checkbox"/> <i>OSHA</i> <input type="checkbox"/> <i>IARC</i>
<i>Other Health Related Comments:</i> Both manganese sulfate and sulfanilamide are possible mutagens; mutagens can cause heritable genetic damage.	
<i>Target Organs:</i> N/A	
<i>Signs and symptoms of exposure:</i> Harmful by dust inhalation and if swallowed. May cause skin irritation.	
<i>Medical Condition Aggravated by Exposure:</i> N/A	

8. EMERGENCY FIRST AID PROCEDURES

<i>Eye Contact:</i> Flush thoroughly with water. Consult physician if irritation persists.
<i>Ingestion:</i> Drink water. Consult a physician.
<i>Inhalation:</i> Remove to fresh air.
<i>Skin Contact:</i> Flush with water. Wash with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

<i>Spill and Leak:</i> Small quantity: Sweep up, dissolve in water and flush down drain with excess water. Large quantity: Sweep up. Place in clean, dry, closed container. Send to approved landfill or to hazardous waste disposal.
<i>Disposal:</i> Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

<i>In Handling:</i>	<input checked="" type="checkbox"/> <i>Gloves</i> <input checked="" type="checkbox"/> <i>Eye Protection</i> <input type="checkbox"/> <i>N/A</i> <input checked="" type="checkbox"/> <i>Other:</i> Lab Coat
<i>Ventilation</i>	<input type="checkbox"/> <i>Normal</i> <input checked="" type="checkbox"/> <i>Mechanical</i> <input type="checkbox"/> <i>Respiratory Protection</i>
<i>Work/Hygienic Practices:</i> Avoid contact with skin and clothing and inhalation of dust. Wash after handling.	

11. SPECIAL PRECAUTIONS

Store tightly closed, away from heat & moisture.
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DATE: 12/20/03

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MATERIAL SAFETY DATA SHEET

LaMOTTE COMPANY
PO BOX 329 - CHESTERTOWN - MARYLAND - 21620
TELEPHONE # FOR INFORMATION 410-778-3100

24 Hour Emergency Number (CHEM-TEL) 800-255-3924

1. PRODUCT IDENTIFICATION

Phosphorus Indicator Solution

Code Nr. **5705**

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
Acetic Acid	64-19-7		12	10 ppm	25 mg/cubic m
Sodium Molybdate dihydrate	10102-40-6		2.5	5 mg/cubic m as Mo	5 mg/cubic m as Mo

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Water to 100%		

4. PHYSICAL DATA

<i>Appearance:</i> Clear Colorless Liquid			
<i>Solubility in Water:</i> Soluble	<i>Odor:</i> Vinegar	<i>Boiling Point:</i> Unknown	<i>Melt. Point:</i> N/A
<i>Vapor Pressure:</i> Unknown	<i>Vapor Density:</i> Unknown	<i>pH:</i> 4	

5. FIRE AND EXPLOSION DATA

<i>Flash Point (method used):</i> N/A	<i>Flammable Limit: LEL:</i> N/A	<i>UEL:</i> N/A
<i>Extinguishing Media:</i> Not a fire hazard		
<i>HMIS Hazard: Health - 1 Flammability - 0 Reactivity - 0</i> <i>Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least</i>		
<i>Special Fire Fighting Procedures:</i> N/A		
<i>Unusual Fire & Explosion Hazard:</i> N/A		

6. REACTIVITY DATA

<i>Stability:</i>	<i>Conditions to avoid:</i> Heat
<input checked="" type="checkbox"/> <i>Stable</i>	<i>Incompatibility (Materials to avoid):</i> Strong alkali, sulfuric acid, metals
<input type="checkbox"/> <i>Unstable</i>	<i>Hazardous Decomposition Products:</i> N/A

7. HEALTH HAZARD DATA

<i>Toxicity:</i> orl rat LD50: 4250 mg/kg for sodium molybdate dihydrate solid	
<i>Primary Route of Entry:</i>	<input checked="" type="checkbox"/> <i>Inhalation</i> <input checked="" type="checkbox"/> <i>Skin</i> <i>Carcinogenicity:</i> <input checked="" type="checkbox"/> <i>None</i> <input type="checkbox"/> <i>NTP</i> <input type="checkbox"/> <i>Ingestion</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>OSHA</i> <input type="checkbox"/> <i>IARC</i>
<i>Other Health Related Comments:</i>	
<i>Target Organs:</i> N/A	
<i>Signs and symptoms of exposure:</i> Vapors and liquid cause irritation to eyes, skin, and respiratory system. Harmful if swallowed.	
<i>Medical Condition Aggravated by Exposure:</i> N/A	

8. EMERGENCY FIRST AID PROCEDURES

<i>Eye Contact:</i> Flush with water for 15 minutes. Consult physician if irritation persists.
<i>Ingestion:</i> Rinse out mouth. Drink plenty of water. Consult a physician.
<i>Inhalation:</i> Remove to fresh air.
<i>Skin Contact:</i> Flush skin thoroughly. Wash with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

<i>Spill and Leak:</i> Ventilate area. Avoid breathing vapor. Neutralize with sodium bicarbonate. Mop up carefully and pour down drain with excess water.
<i>Disposal:</i> Flush down drain with excess water. Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

<i>In Handling:</i> <input checked="" type="checkbox"/> <i>Gloves</i> <input checked="" type="checkbox"/> <i>Eye Protection</i> <input type="checkbox"/> <i>N/A</i> <input checked="" type="checkbox"/> <i>Other:</i> Lab Coat
<i>Ventilation</i> <input checked="" type="checkbox"/> <i>Normal</i> <input type="checkbox"/> <i>Mechanical</i> <input type="checkbox"/> <i>Respiratory Protection</i>
<i>Work/Hygienic Practices:</i> Avoid contact with skin. Use with adequate ventilation.

11. SPECIAL PRECAUTIONS

N/A
DATE: 12/13/03 The above information is believed to be correct but does not claim to be all inclusive and should be used only as a guide.

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TELEPHONE # FOR INFORMATION 410-778-3100

24 Hour Emergency Number (CHEM-TEL) 800-255-3924

1. PRODUCT IDENTIFICATION

Phosphorus Test Tablet

Code Nr. **5706**

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
Stannous Chloride Dihydrate	10025-69-1		5	2 mg/cubic m as Sn	2 mg/cubic m as Sn
Potassium Chloride	7447-40-7		95	15 mg/cubic m total dust	10 mg/cubic m total dust

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
N/A		

4. PHYSICAL DATA

Appearance: White Tablet			
Solubility in Water: Soluble	Odor: None	Boiling Point: N/A	Melt. Point: ca. 750 degC
Vapor Pressure: N/A	Vapor Density: N/A	pH: 3 (1 tablet/10mL water)	

5. FIRE AND EXPLOSION DATA

Flash Point (method used) N/A	Flammable Limit: LEL: N/A	UEL: N/A
Extinguishing Media: Not a fire hazard		
HMIS Hazard: Health - 1 Flammability - 0 Reactivity - 0	Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least	
Special Fire Fighting Procedures: N/A		
Unusual Fire & Explosion Hazard: N/A		

6. REACTIVITY DATA

Stability: <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Conditions to avoid: Heat, moisture	Incompatibility (Materials to avoid): N/A	Hazardous Decomposition Products: N/A
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7. HEALTH HAZARD DATA

Toxicity: orl rat LD50:700 mg/kg for stannous chloride; 2600 mg/kg for potass. chloride	
Primary Route of Entry: <input type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Ingestion <input type="checkbox"/> Skin <input type="checkbox"/> N/A	Carcinogenicity: <input checked="" type="checkbox"/> None <input type="checkbox"/> OSHA <input type="checkbox"/> NTP <input type="checkbox"/> IARC
Other Health Related Comments: Potassium chloride investigated as a mutagen	
Target Organs: N/A	
Signs and symptoms of exposure: May irritate eyes and skin. Ingestion of large quantities may cause gastrointestinal irritation and circulatory problems.	
Medical Condition Aggravated by Exposure: Persons w/ impaired kidney function	

8. EMERGENCY FIRST AID PROCEDURES

Eye Contact: Flush thoroughly with water.
Ingestion: Drink 1 - 2 glasses of water and consult a physician.
Inhalation: N/A
Skin Contact: Rinse skin. Wash with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

Spill and Leak: Sweep up. Dissolve in water and flush down drain with water.
Disposal: Dissolve in water and flush down drain with excess water. Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

In Handling: <input type="checkbox"/> Gloves <input checked="" type="checkbox"/> Eye Protection <input type="checkbox"/> N/A <input type="checkbox"/> Other:
Ventilation <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Mechanical <input type="checkbox"/> Respiratory Protection
Work/Hygienic Practices: N/A

11. SPECIAL PRECAUTIONS

Avoid handling tablets

DATE: 1/10/05 The above information is believed to be correct but does not claim to be all inclusive and should be used only as a guide.

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TELEPHONE # FOR INFORMATION 410-778-3100

24 Hour Emergency Number (CHEM-TEL) 800-255-3924

1. PRODUCT IDENTIFICATION

Potassium Extracting Solution

Code Nr. 5707

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
Acetic Acid	64-19-7		1.2	10 ppm	25 mg/cubic m

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Sodium Acetate	6131-90-4	5
Water to 100%		

4. PHYSICAL DATA

<i>Appearance:</i> Clear Colorless Liquid			
<i>Solubility in Water:</i> Soluble	<i>Odor:</i> Vinegar	<i>Boiling Point:</i> Unknown	<i>Melt. Point:</i> N/A
<i>Vapor Pressure:</i> Unknown	<i>Vapor Density:</i> Unknown	<i>pH:</i> 5	

5. FIRE AND EXPLOSION DATA

<i>Flash Point (method used):</i> N/A	<i>Flammable Limit: LEL:</i> N/A	<i>UEL:</i> N/A
<i>Extinguishing Media:</i> Not a fire hazard		
<i>HMIS Hazard: Health - 0 Flammability - 0 Reactivity - 0</i> <i>Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least</i>		
<i>Special Fire Fighting Procedures:</i> N/A		
<i>Unusual Fire & Explosion Hazard:</i> N/A		

6. REACTIVITY DATA

<i>Stability:</i>	<i>Conditions to avoid:</i> N/A
<input checked="" type="checkbox"/> <i>Stable</i>	<i>Incompatibility (Materials to avoid):</i> N/A
<input type="checkbox"/> <i>Unstable</i>	<i>Hazardous Decomposition Products:</i> COx

7. HEALTH HAZARD DATA

<i>Toxicity:</i> Non-toxic	
<i>Primary Route of Entry:</i>	<input type="checkbox"/> <i>Inhalation</i> <input checked="" type="checkbox"/> <i>Skin</i> <input type="checkbox"/> <i>N/A</i>
	<i>Carcinogenicity:</i> <input checked="" type="checkbox"/> <i>None</i> <input type="checkbox"/> <i>NTP</i> <input type="checkbox"/> <i>OSHA</i> <input type="checkbox"/> <i>IARC</i>
<i>Other Health Related Comments:</i>	
<i>Target Organs:</i> N/A	
<i>Signs and symptoms of exposure:</i> May irritate eyes and skin.	
<i>Medical Condition Aggravated by Exposure:</i> N/A	

8. EMERGENCY FIRST AID PROCEDURES

<i>Eye Contact:</i> Flush thoroughly with water.
<i>Ingestion:</i> Drink 1 - 2 glasses of water.
<i>Inhalation:</i> N/A
<i>Skin Contact:</i> Flush with water. Wash with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

<i>Spill and Leak:</i> Mop up and flush down drain with water.
<i>Disposal:</i> Pour down drain with excess water. Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

<i>In Handling:</i> <input checked="" type="checkbox"/> <i>Gloves</i> <input checked="" type="checkbox"/> <i>Eye Protection</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Other:</i> Lab Coat
<i>Ventilation</i> <input checked="" type="checkbox"/> <i>Normal</i> <input type="checkbox"/> <i>Mechanical</i> <input type="checkbox"/> <i>Respiratory Protection</i>
<i>Work/Hygienic Practices:</i> N/A

11. SPECIAL PRECAUTIONS

N/A

DATE: 5/20/02

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