



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: 7826

Product Description: Ammonium Hydroxide Solution

Manufactured By: LaMotte Company

802 Washington Avenue

Chestertown, MD 21620

2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	1336-21-6 Ammonium Hydroxide (<5% w/w as ammonia)	16v/v	50 ppm as NH3	25 ppm as NH3
No	7732-18-5 Water	to 100%		

3. Hazards Overview

Primary Route Of Entry: Ingestion Inhalation Skin

Vapors and liquid cause irritation to eyes, skin and respiratory system. Harmful if swallowed.

HMIS Hazard

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

Health: 2 Flammability: 1 Reactivity: 1

Carcinogenicity: None

Other Health Related Comments:

Product Code: 7826

Product Description: Ammonium Hydroxide Solution

4. First Aid Measures

Eye Contact: Immediately flush with water for 15 minutes. Consult physician.

Skin Contact: Immediately flush with water for 15 minutes while removing affected clothing. Rinse skin thoroughly.

Ingestion: Rinse mouth. Drink plenty 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: Water spray

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

Unusual Fire & Explosion Hazard: Closed containers exposed to heat may explode

6. Accidental Release Measures

Carefully neutralize with dilute hydrochloric acid. Mop up and 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

Mechanical

Protection When Handling

Gloves Eye Protection Lab Coat

Work/Hygenic Practices: Use with adequate ventilation. Avoid inhalation of vapor and contact with skin.

9. Physical & Chemical Properties

Appearance: Clear Colorless Liquid

Solubility In Water: Soluble

Odor: Pungent, ammonia

pH: 13

Vapor Density: 0.6(Air=1)

Vapor Pressure: ca. 500 @20degC

Boiling Point: <100 deg C

Melting Point: N/A

10. Stability & Reactivity

Stable: Yes

Conditions To Avoid: Heat, light

Incompatibility (Materials To Avoid): Metals, chlorine, bleaches, acids

Hazardous Decomposition Products: Ammonia, NOx

11. Toxicological Information

orl rat LD50: 350 mg/kg for ammonium hydroxide

Target Organs: Skin Respiratory System Eyes Lungs

Pre-Existing Conditions Aggravated By Exposure: Respiratory conditions

Product Code: 7826

Product Description: Ammonium Hydroxide Solution

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

Not Regulated For Transport

15. Regulatory Information

Chemical Inventory Status

Hazard	Ingredient	USA	Europe	--- Canada ---		Australia	Japan
		TSCA	EC	DSL	NDSL		
Yes	1336-21-6 Ammonium Hydroxide	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			
1336-21-6 Ammonium Hydroxide	No	No	No	No	1000	No	No
7732-18-5 Distilled Water	No	No	No	No	No	No	No

Product Code: 7826

Product Description: Ammonium Hydroxide Solution

--- SARA 311/312 ---

----- Australia -----

Hazard Categories

**Hazchem
Code**

**Poison
Schedule**

**This MSDS Is
WHMIS Compliant**

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

1336-21-6 Yes Yes No No No
Ammonium Hydroxide

2P S6

7732-18-5 No No No No No
Distilled Water

None Allocated None Allocated

product Yes No No No No
7826
as a whole

None Allocated None Allocated Yes

16. Other Information

Store tightly closed, away from heat, sunlight, acids, metals, bleaches

Prepared By: IP, Regulatory Affairs Department

Revised: 6/21/2003



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Outside North American continent: 813-248-0585 (call collect)

MSDS

Material Safety Data Sheet

1. Product Identification

Product Code:

7827

Product Description:

Potassium Ferricyanide
Solution

Manufactured By:

LaMotte Company
802 Washington Avenue
Chestertown, MD 21620

2. Composition/Information on Ingredients

Hazardous	Name	CAS #	%	OSHA PEL	ACGIH TLV
Yes	Potassium Ferricyanide	13746-66-2	2	N/E	N/E
No	Water to 100%	7732-18-5	98		

3. Hazards Overview

Primary Route of Entry: Ingestion Skin

May be harmful if swallowed or absorbed through 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:

4. First Aid Measures

Eye Contact: Flush with water for 15 minutes.

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

Ingestion: Drink plenty of water. Consult a physician.

Inhalation: N/A

5. Fire Fighting Measures

Flash Point: N/A **LEL:** N/A **UEL:** N/A

Fire Rating

Extinguishing Media: Not a fire hazard

Special Fire Fighting Procedures: N/A

Hazardous Combustion and/or Decomposition Products:

May emit cyanide fumes in the presence of acid and high heat.

Unusual Fire & Explosion Hazard: At very high temperatures and in the presence of acids potassium ferricyanide may emit toxic cyanide fumes.

Product Code: 7827

**Product Description: Potassium Ferricyanide
Solution**

6. Accidental Release Measures

Mop up with paper towels. Dispose as per Sec. 16

7. Handling & Storage

Store in cool, ventilated area away from incompatibles. Protect from light.

8. Exposure Controls/Personal Protection

Ventilation

Use with adequate ventilation.

Protection When Handling

Gloves Eye Protection Lab Coat

Work/Hygienic Practices: Wash after handling.

9. Physical & Chemical Properties

Appearance:	Clear Yellow Liquid	Boiling Point:	ca. 100 degC
		Melting Point:	Unknown
		pH:	7
Odor:	None	Vapor Density:	<1(Air=1)
Solubility in Water:	Soluble	Vapor Pressure:	<17 @ 20 deg C

10. Stability & Reactivity

Stable:	Yes
Conditions to Avoid:	Heat, light
Materials to Avoid:	Strong acids, ammonia, oxidizers.

Hazardous Decomposition Products: May emit cyanide fumes in the presence of acid and high heat.

11. Toxicological Information

Oral rat LDLo: 1600 mg/kg (for potassium ferricyanide solid). Investigated as a mutagen.

Target Organs: Information not available.

12. Ecological Information

Information not Available

13. Disposal Considerations

Small quantity: Wash down drain with excess water. Large quantity: Hold for disposal as hazardous waste. Dispose according to federal, state and local regulations.

Product Code: 7827

Product Description: Potassium Ferricyanide
Solution

14. Transport Information

Not regulated for transport

15. Regulatory Information

Chemical Inventory Status

Ingredient	USA TSCA	Europe EC	---Canada---		Australia	Japan
			DSL	NDSL		
Potassium Ferricyanide	Yes	Yes	Yes	No	Yes	Yes

Water to 100%

Federal, State, & International Regulations

Ingredient	---SARA 302---		----- SARA 313 -----			RCRA	TSCA
	RQ	TPQ	Listed	Chemical Category	CERCLA	261.33	8(D)
Potassium Ferricyanide	No	No	No	No	No	No	No

Water to 100%

Ingredient	----- SARA 311/312 -----			----- Australia -----		This MSDS is WHMIS Compliant
	Hazard Categories			Hazchem Code	Poison Schedule	
Potassium Ferricyanide	Acute: Yes	Chronic: No	Fire: No	None	None	Allocated
	Pressure: No	Reactivity: No	(Pure/Solid)	Allocated		

Water to 100%

For product #7827 liquid mixture, taken as a whole	Acute: Yes	Chronic: No	Fire: No	None	None	Allocated	Yes
	Pressure: No	Reactivity: No		Allocated			

16. Other Information

Store out of light.

Prepared By: IP

Revised: 5/24/2005