



Issuing Date 3/3/2010

Revision Number 0

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Copper 1

**Product Code(s)** 6446

**Synonyms** none

**Recommended Use** Laboratory chemicals. Industrial (not for food or food contact use). Chemical additive. Swimming pool 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

**Emergency Overview**

Harmful if swallowed

Irritating to eyes, respiratory system and skin

**Appearance** Clear, colorless solution**Physical State** Liquid**Odor** Pungent, Ammoniacal

**OSHA Regulatory Status** This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold, but considers exposure to the chemical if user has direct eye and skin contact with the chemical.

**Potential Health Effects**

**Principle Routes of Exposure** Skin contact, Inhalation, Ingestion

**Acute Toxicity**

**Eyes** Irritating to eyes.  
**Skin** Irritating to skin.  
**Inhalation** Irritating to respiratory system.  
**Ingestion** Harmful if swallowed.

**Chronic Effects**

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Ammonium hydroxide	1336-21-6	<4
Diethylcarbamodithioic acid sodium salt trihydrate	20624-25-3	1
Toluene	108-88-3	<0.1
Water	7732-18-5	to 100%

WARNING! This product contains Toluene, a chemical know to the State of California to cause birth defects or other reproductive harm..

#### 4. FIRST AID MEASURES

<b>General Advice</b>	Do not get in eyes, on skin, or on clothing.
<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Consult a physician.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician immediately.
<b>Ingestion</b>	Do NOT induce vomiting. Drink plenty of water. Clean mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.
<b>Protection of First-aiders</b>	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

**Suitable Extinguishing Media** Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), or foam.

#### Explosion Data

##### NFPA

**Health Hazard** 1**Flammability** 0**Stability** 0**Physical and Chemical Hazards** -

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Refer to Section 8. Avoid contact with skin, eyes and clothing.
<b>Methods for Containment</b>	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).
<b>Methods for Cleaning Up</b>	Use personal protective equipment. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Following product recovery, flush area with water.

#### 7. HANDLING AND STORAGE

<b>Handling</b>	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.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Separate from acids and alkalis. Keep out of the reach of children.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Chemical Name</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>	<b>NIOSH IDLH</b>
Ammonium hydroxide 1336-21-6	None Established	None Established	None Established

Diethylcarbamodithioic acid sodium salt trihydrate 20624-25-3	None Established	None Established	None Established
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 560 mg/m <sup>3</sup> STEL: 150 ppm
Water 7732-18-5	None Established	None Established	None Established

**Personal Protective Equipment****Eye/Face Protection**

Safety glasses with side-shields.

**Skin and Body Protection**

Gloves &amp; Lab Coat.

**Respiratory Protection**

Use only with adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Clear, colorless solution	<b>Odor</b>	Pungent, Ammoniacal
<b>Physical State</b>	Liquid	<b>pH</b>	12
<b>Boiling Point/Range</b>	ca 100 °C	<b>Freezing Point</b>	No information available

<b>Vapor Pressure</b>	>20 mmHg @ 20 °C	<b>Vapor Density</b>	No data available
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**10. STABILITY AND REACTIVITY****Stability** Stable under normal conditions.**Incompatible Products** Strong acids. Metals. Chlorine.**Conditions to Avoid** Excessive heat.**Hazardous Decomposition Products** Ammonia. Nitrogen oxides (NOx). Contact with acid can release carbon disulfide..**Hazardous Polymerization** Hazardous polymerization does not occur.**11. TOXICOLOGICAL INFORMATION****Acute Toxicity**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium hydroxide	350 mg/kg ( Rat )	None Established	None Established
Diethylcarbamodithioic acid sodium salt trihydrate	1500 mg/kg ( Rat )	None Established	None Established
Toluene	636 mg/kg ( Rat )	8390 mg/kg ( Rabbit )	12.5 mg/L ( Rat ) 4 h 26700 ppm ( Rat ) 1 h
Water	90 mL/kg ( Rat )	None Established	None Established

**Chronic Toxicity**

Chemical Name	ACGIH	IARC	NTP	OSHA
Ammonium hydroxide	None Established	None Established	None Established	None Established

Diethylcarbamodithioic acid sodium salt trihydrate	None Established	None Established	None Established	None Established
Toluene	None Established	None Established	None Established	None Established
Water	None Established	None Established	None Established	None Established

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Ammonium hydroxide	None Established	None Established	None Established
Diethylcarbamodithioic acid sodium salt trihydrate	None Established	None Established	None Established
Toluene	None Established	None Established	None Established
Water	None Established	None Established	None Established

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Ammonium hydroxide	None Established	LC50= 8.2 mg/L Pimephales promelas 96 h	None Established	EC50 = 0.66 mg/L 48 h
Diethylcarbamodithioic acid sodium salt trihydrate	None Established	None Established	None Established	None Established
Toluene	EC50 > 433 mg/L 96 h	LC50= 13 mg/L Lepomis macrochirus 96 h LC50= 24.0 mg/L Lepomis macrochirus 96 h LC50= 24.0 mg/L Oncorhynchus mykiss 96 h LC50= 25 mg/L Pimephales promelas 96 h	EC50 = 19.7 mg/L 30 min	EC50 = 11.3 mg/L 48 h EC50 = 310 mg/L 48 h
Water	None Established	None Established	None Established	None Established

Chemical Name	Log Pow
Ammonium hydroxide	None Established
Diethylcarbamodithioic acid sodium salt trihydrate	None Established
Toluene	= 2.65
Water	None Established

## 13. DISPOSAL CONSIDERATIONS

### Waste Disposal Method

Dispose of in accordance with local regulations.

Chemical Name
Ammonium hydroxide - 1336-21-6
Diethylcarbamodithioic acid sodium salt trihydrate - 20624-25-3
Toluene - 108-88-3
Water - 7732-18-5

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Ammonium hydroxide - 1336-21-6	None Established	None Established	None Established	None Established
Diethylcarbamodithioic acid sodium salt trihydrate - 20624-25-3	None Established	None Established	None Established	None Established

Toluene - 108-88-3	None Established	None Established	Toxic waste; (waste number F025); Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated	None Established
Water - 7732-18-5	None Established	None Established	None Established	None Established

Chemical Name	California Hazardous Waste Status
Ammonium hydroxide	Toxic; Corrosive
Toluene	Toxic; Ignitable

#### 14. TRANSPORT INFORMATION

**DOT** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

#### 15. REGULATORY INFORMATION

##### International Inventories

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Ammonium hydroxide 1336-21-6 ( <4 )	Present	X	X	1-314	X	KE-01688	X	X
Diethylcarbamodithioic acid sodium salt trihydrate 20624-25-3 ( 1 )	TSCA	DSL	EINECS/ELINCS	ENCS	X	KECL	X	X
Toluene 108-88-3 ( <0.1 )	Present	X	X	3-2	X	KE-33936	X	X
Water 7732-18-5 ( to 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 %
Ammonium hydroxide	1336-21-6	<4	1.0
Diethylcarbamodithioic acid sodium salt trihydrate	20624-25-3	1	None Established
Toluene	108-88-3	<0.1	1.0
Water	7732-18-5	to 100%	None Established

###### 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

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium hydroxide 1336-21-6 ( <4 )	1000 lb	None Established	None Established	X
Diethylcarbamodithioic acid sodium salt trihydrate 20624-25-3 ( 1 )	None Established	None Established	None Established	None Established
Toluene 108-88-3 ( <0.1 )	1000 lb	X	X	X
Water 7732-18-5 ( to 100% )	None Established	None Established	None Established	None Established

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Ammonium hydroxide	1336-21-6	<4	None Established	None Established	None Established	None Established
Diethylcarbamodithioic acid sodium salt trihydrate	20624-25-3	1	None Established	None Established	None Established	None Established
Toluene	108-88-3	<0.1	Present	Group I	None Established	None Established
Water	7732-18-5	to 100%	None Established	None Established	None Established	None Established

**CERCLA**

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Ammonium hydroxide	1000 lb	None Established
Diethylcarbamodithioic acid sodium salt trihydrate	None Established	None Established
Toluene	1000 lb	None Established
Water	None Established	None Established

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

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Chemical Name	CAS-No	California Prop. 65
Ammonium hydroxide	1336-21-6	None Established
Diethylcarbamodithioic acid sodium salt trihydrate	20624-25-3	None Established
Toluene	108-88-3	Developmental
Water	7732-18-5	None Established

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ammonium hydroxide	X	X	X	None Established	None Established
Diethylcarbamodithioic acid sodium salt trihydrate	None Established	None Established	None Established	None Established	None Established
Toluene	X	X	X	X	X
Water	None Established	None Established	None Established	None Established	None Established

**International Regulations****Mexico - Grade**

No information available.

Chemical Name	Carcinogen Status	Exposure Limits
Ammonium hydroxide	None Established	None Established
Diethylcarbamodithioic acid sodium salt trihydrate	None Established	None Established
Toluene	None Established	Mexico: TWA= 188 mg/m <sup>3</sup> Mexico: TWA= 50 ppm
Water	None Established	None Established

**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.

**WHMIS Hazard Class**

Not determined

Chemical Name	NPRI
Toluene	X

**16. OTHER INFORMATION**

NFPA	HMIS	PPE	Transport Symbol						
	<table><tr><td>Health Hazard</td><td>1</td></tr><tr><td>Fire Hazard</td><td>0</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	1	Fire Hazard	0	Reactivity	0		
Health Hazard	1								
Fire Hazard	0								
Reactivity	0								

**Prepared By** Regulatory Affairs Department

**Issuing Date** 3/3/2010

**Revision Date**

**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**