

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

**Nickel, Copper, Cobalt Std.
Stock Soln, "Temporary" MSDS** *Code Nr. 2387*

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
^ Cobalt Chloride, hexahydrate	7791-13-1	7646-79-9	6	0.1 mg/cubic m Co metal	0.02 mg/cubic m Co compnds
^ Hydrochloric Acid	7647-01-0		3	C 7 mg/cubic m	C 5 ppm
Nickel Sulfate, hexahydrate	7786-81-4		15		
Cupric Sulfate, pentahydrate			13.5		
Sulfuric Acid			16		

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

NAME	CAS #	%
Water to 100%		

4. PHYSICAL DATA

<i>Appearance:</i>			
<i>Solubility in Water:</i> soluble	<i>Odor:</i> None	<i>Boiling Point:</i> >100 deg C	<i>Melt. Point:</i> N/A
<i>Vapor Pressure:</i> Unknown	<i>Vapor Density:</i> Unknown	<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> Suitable for adjacent material		
<i>HMIS Hazard: Health - 2 Flammability - 0 Reactivity - 1</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> Avoid temperatures over 220 deg C
<input checked="" type="checkbox"/> <i>Stable</i>	<i>Incompatibility (Materials to avoid):</i> Metals, strong bases
<input type="checkbox"/> <i>Unstable</i>	<i>Hazardous Decomposition Products:</i> Emits toxic chlorides, cobalt & other metal fume if heated to decomposition

7. HEALTH HAZARD DATA

<i>Toxicity:</i> orl rat LD50:80 mg/kg for cobalt chloride; 766 mg/kg for cobalt chloride, hexahydrate	
<i>Primary Route of Entry:</i>	<input checked="" type="checkbox"/> <i>Inhalation</i> <input checked="" type="checkbox"/> <i>Skin</i> <i>Carcinogenicity:</i> <input type="checkbox"/> <i>None</i> <input type="checkbox"/> <i>NTP</i> <input checked="" type="checkbox"/> <i>Ingestion</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>OSHA</i> <input checked="" type="checkbox"/> <i>IARC</i>
<i>Other Health Related Comments:</i> Cobalt:carcinogen,lab animals-possibly in humans(IARC 2B);investigated as mutagen, tumorigen, reproductive effector	
<i>Target Organs:</i> Heart, Kidney, Liver, Lungs, Skin, Thyroid,	
<i>Signs and symptoms of exposure:</i> Harmful if swallowed or inhaled. May irritate eyes, skin, respiratory system. Ingestion causes nausea, vomiting.	
<i>Medical Condition Aggravated by Exposure:</i> Eye, skin, liver, or lung problems.	

8. EMERGENCY FIRST AID PROCEDURES

<i>Eye Contact:</i> Flush with water for 15 minutes. Get prompt medical attention.
<i>Ingestion:</i> Induce vomiting. Get prompt medical attention.
<i>Inhalation:</i> Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.
<i>Skin Contact:</i> Flush with water for 15 min. while removing affected clothing and wash skin w/ soap & water.

9. SPILL AND DISPOSAL PROCEDURES

<i>Spill and Leak:</i> Mop up, neutralize with sodium bicarbonate or soda ash, & flush to drain with excess water.
<i>Disposal:</i> Small quantity: Neutralize & flush to drain. Large quantity: Dispose of as hazardous waste, 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> May cause dermatitis; wash after handling.

11. SPECIAL PRECAUTIONS

Avoid contact with eyes, skin, or clothing.

DATE: 11/20/04 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.