

SECTION I		NAME	24 HOUR EMERGENCY ASSISTANCE
Product	COBALT CHLORIDE, 6-HYDRATE		
Chemical Synonyms	Cobaltous Chloride, Hexahydrate		
Formula	CoCl ₂ ·6H ₂ O		
Unit(s) Size	25, 100, 500 grams; 2.5 Kg.		
C.A.S. No.	7791-13-1		

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Cobalt Chloride, 6-Hydrate	100%	See Section V.

WARNING! MAY BE HARMFUL IF SWALLOWED. HARMFUL		
IF INHALED. MAY CAUSE SKIN AND EYE IRRITATION.		

SECTION III PHYSICAL DATA

Melting Point (°F)	87°C (188°F)	Specific Gravity (H ₂ O = 1)	1.924 @ 20°C
Boiling Point (°F)	-6H ₂ O @ 110°C (230°F)	Percent Volatile by Volume (%)	Non-volatile (NA).
Vapor Pressure (mm Hg)	40 mm @ 770°C	Evaporation Rate (=1)	Non-volatile (NA).
Vapor Density (Air=1)	8.23		
Solubility in Water	Very soluble.		
Appearance & Odor	Damp red crystals; very slight hydrochloric acid odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-combustible (NA).	Flammable Limits in Air % by Volume	NA	Lower	Upper
Extinguisher Media	Use any media suitable for extinguishing supporting fire.				

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH-approved, self-contained breathing apparatus and full protective clothing.

(1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4, GUIDE PAGE NO. 31)

UNUSUAL FIRE AND EXPLOSION HAZARDS

See Section VI.
Fire or excessive heat may produce hazardous decomposition products.

D.O.T.	NON-REGULATED.
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Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

Threshold Limited Value	As Cobalt metal, dust or fume: TWA: 0.1 mg/m ³ (Air). (ACGIH 1983-84).
Effects of Overexposure	INHALATION: Prolonged or repeated exposure to the dust may produce asthma-like symptoms. EYES: Causes irritation. SKIN: Prolonged or repeated exposure causes irritation and may result in an allergic skin reaction. INGESTION: May cause vomiting, diarrhea and a sensation of hotness. Excessive inhalation and/or ingestion of cobalt salts may affect the kidneys, lungs and thyroid.

Emergency and First Aid Procedures	INHALATION: Remove to fresh air. If discomfort or illness develops, get medical attention. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. EYES: Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. SKIN: Flush thoroughly with water, then wash with mild soap and water. INGESTION: If swallowed, if conscious, give one or two glasses of water to drink, induce vomiting and call physician. Never give anything by mouth to an unconscious person.
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SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Moisture, excessive temperature and heat. Decomposes on heating in air at 400°C.
	Stable	X	
Incompatibility (Materials to Avoid)	Strong oxidizers, such as Br ₂ , Cl ₂ , H ₂ O ₂ , or NaClO.		

Hazardous Decomposition Products	Sublimes at 500°C into HCl gas. Thermal decomposition or burning may produce Hydrochloric Acid.
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Hazardous Polymerization	Conditions to Avoid
May Occur	Will Not Occur
	X
	Not applicable.

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Recover for use if not contaminated. Sweep up and place in a suitable container. Avoid generating dust.
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Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Dispose of in an approved chemical landfill or contract with a licensed chemical waste disposal agency.
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SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH-approved dust mask or respirator.		
Ventilation	Local Exhaust	Recommended.	Special
	Mechanical (General)	Recommended.	Other
Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
Other Protective Equipment	Goggles, lab coat, vented hood, proper gloves and eye wash station.		

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Store in a cool, dry place. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Color turns from pink to blue on drying (52-140°C).
Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals. Deliquescent material. Avoid generating dust. Use with adequate ventilation. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No.	No. 3	Date	5/11/93	Approved	Alexander A. Piccirilli	Chemical Safety Coordinator	AP
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