Science K & Boreal Laboratories

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MATERIAL SAFETY DATA SHEET

MSDS No. NN 140
NN 145
Effective Date September 29, 1992

SECTION I NAME

24 HOUR EMERGENCY ASSISTANCE

Product	NICKEL CHLORIDE
Chemical Synonyms	Nickelous Chloride Hexahydrate
Formula	$NiCl_2 \cdot 6H_2O$
Unit(s) Size	100, 500 grams; 2.5 Kg.
C.A.S. No.	7791-20-0

CHEMTREC
800-424-9300
Day 716-226-6177
Night 716-334-4222

NFPA HAZARD RATING

Health	3
Fire	0
Reactivity	0

LEAST SLIGHT MODERATE HIGH EXTREME
0 1 2 3 4

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Nickel Chloride	100%	See Section V.
WARNING! HARMFUL IF INHALED OR SWALLOWED.		
CAUSES SKIN AND EYE IRRITATION. CAN		
CAUSE ALLERGIC SKIN REACTION.		

SECTION III PHYSICAL DATA

Melting Point (°F)	Data not listed.	Specific Gravity (H_2O = 1)	3.55 at 20°C
Boiling Point (°F)	987°C (1808°F)	Percent Volatile by Volume (%)	Non-volatile (NA).
Vapor Pressure (mm Hg)	1 mm at 671°C	Evaporation Rate (=1)	Non-volatile (NA).
Vapor Density (Air=1)	Data not listed.		
Solubility in Water	254 grams in 100 mL. water at 20°C.		
Appearance & Odor	Green, deliquescent crystals or crystalline powder; with slight acidic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable (NA).	Flammable Limits in Air % by Volume	Lower NA	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 protective clothing to prevent contact with skin and eyes.

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

UNUSUAL FIRE AND EXPLOSION HAZARDS

This material is non-flammable. No unusual fire or explosive hazards are associated with this material. Fire or excessive heat may produce hazardous decomposition of nickel dust or fume and hydrogen chloride.

D.O.T. **NON-REGULATED.**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

Threshold Limited Value
ACGIH-TLV 8 HR. TWA 1984-85: Soluble comp. ..s as Ni.
As Nickel: CAS No. 7440-02-0 1 mg/m^3. In fume or respirable air.

Effects of Overexposure
INGESTION: Causes irritation and may cause vomiting, gingivitis and stomatitis. INHALATION: Dust causes upper respiratory tract irritation and repeated exposure may result in lung damage. Individuals hypersensitive to nickel may develop asthma, bronchitis, shortness of breath, wheezing. EYES: Dust causes irritation. SKIN: Causes irritation. Repeated contact may cause allergic skin reaction.

Emergency and First Aid Procedures
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, treat symptomatically and supportively. If vomiting occurs, keep head lower than hips to prevent aspiration. If conscious, give as soon as possible large quantities of milk or water to drink. Get immediate medical attention. Never give anything by mouth to an unconscious person. 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.

SECTION VI REACTIVITY DATA

Stability			Conditions to Avoid
	Unstable		Excessive temperature and heat.
	Stable	X	

Incompatibility (Materials to Avoid) Strong alkalies, acids, potassium and other water reactive materials.

Hazardous Decomposition Products Thermal decomposition or burning may produce hazardous nickel dust or fume and hydrogen chloride.

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled
Wearing suitable protective clothing and avoid making dust, sweep up material and place in a suitable container for disposal in an approved chemical landfill.

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 waste disposal service.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None should be 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	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves Rubber. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Gloves, lab coat, apron, ventilation hood, proper gloves, eye wash station.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing
Keep container tightly closed when not in use.
Store in a cool, dry place away from strong alkalies.
Wash thoroughly after handling.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.

Use with adequate ventilation. Do not get in eyes, on skin, on clothing. Avoid breathing dust. 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 9/29/92 | Approved Alexander A. Piccirilli | Chemical Safety Coordinator AP