



MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
Avon, New York 14414
(716) 226-6177

MSDS No. NN 165
Effective Date April 5, 1999

SECTION V HEALTH HAZARD DATA

NN 165

Threshold Limited Value ACGIH-TLV 8 HR. TWA 1992-93: Soluble compounds Ni As Nickel [CAS No. 7440-02-0] 1 mg/m³. 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 exposed area with water, then wash with soap and water. Get medical attention if irritation persists. **INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call physician immediately. **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink, induce vomiting. Repeat until vomit fluid is clear. Call physician immediately. Never give anything by mouth to an unconscious person.

SECTION VI REACTIVITY DATA

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

Incompatibility (Materials to Avoid) Strong alkalis.

Hazardous Decomposition Products Thermal decomposition or burning may produce hazardous nickel dust or fumes and oxides of sulfur.

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

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Recover for use if not contaminated. Wearing suitable protective clothing and avoid making dust, sweep up material and place in a suitable container for disposal. Wash spill area with soap and water.

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 agency.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) Work in ventilation hood. If dusty conditions prevail, wear a NIOSH/MSHA-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 Goggles, lab coat, eye wash station, proper gloves, ventilation hood.

SECTION IX SPECIAL PRECAUTIONS

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

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

Do not get in eyes, on skin, on clothing. Avoid breathing 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.

Revision No. 6	Date 4/5/99	Approved Michael Raszeja	Chemical Safety Coordinator MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	NICKEL SULFATE	<p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING</p> <table border="1"> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table> <p>HMIS *</p> <table border="1"> <tr> <td>Health</td> <td>3</td> </tr> <tr> <td>Fire</td> <td>0</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </table>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4	Health	3	Fire	0	Reactivity	0
LEAST	SLIGHT		MODERATE	HIGH	EXTREME													
0	1		2	3	4													
Health	3																	
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Reactivity	0																	
Chemical Synonyms	Nickelous Sulfate Hexahydrate																	
Formula	NiSO ₄ •6H ₂ O																	
Unit Size	up to 2.5 Kg.																	
C.A.S. No.	10101-97-0																	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Nickel Sulfate	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)	Transition 53.3°C (127°F)	Specific Gravity (H ₂ O = 1)	2.07 at 20°C
Boiling Point (°F)	-6H ₂ O at 103°C (217°F)	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	Data not listed.		
Solubility in Water	71 grams per 100 mL. at 20°C.		
Appearance & Odor	Emerald-green, transparent crystals; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

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

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

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

D.O.T. NON-REGULATED.

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