MATERIAL SAFETY DATA SHEET
Meeting OSHA Standard 29 CFR 1910.1200 (g)

MOONEY CHEMICALS INC
12301 Scranton Road
Cleveland, Ohio 44113

Effective Date: 02/27/96
Supersedes: 10/09/95

SECTION I: IDENTIFICATION AND EMERGENCY INFORMATION

TRADE NAME: 48% NICKEL CARBONATE
PRODUCT DESCRIPTION: Light Green Powder, No Odor
AFTER HOURS TELEPHONE NO.: 814-432-2122

SECTION II: COMPONENTS AND HAZARD INFORMATION

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS NO.</th>
<th>% WT.</th>
<th>EXPOSURE GUIDELINES</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL TWA STEL</td>
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<td></td>
<td></td>
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<td>ACGIH TLV TWA STEL</td>
</tr>
<tr>
<td>Nickel Carbonate</td>
<td>3333-67-3</td>
<td>&gt;99</td>
<td>1</td>
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OSHA 29 CFR 1910.1000 Table Z-1-A (Final Rule) TWA list for Nickel, soluble compounds

+ THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)
Health* Flammability Reactivity Protective Equipment
1 0 0 E

*Nickel Carbonate is a suspected carcinogen.

SECTION III: PRIMARY ROUTES OF ENTRY AND EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: May cause eye irritation. Flush with large amounts of water, lifting upper and lower lids occasionally. Get medical attention.

SKIN: May cause allergic skin irritation. Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

INHALATION: May be harmful if inhaled. May cause cancer. May cause respiratory irritation. If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing is stopped, give artificial respiration. Keep person warm, quiet. Get medical attention.

INGESTION: May be harmful if swallowed. Induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician. Never give anything by mouth to an unconscious person.
SECTION IV: FIRE AND EXPLOSION HAZARD INFORMATION

Flash Point (Minimum)°F: Not Applicable

Handling Precautions
Avoid generating dust.

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES
Water spray (fog) dry chemical, carbon dioxide.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS
Toxic fumes and metal oxides may be present during decomposition.

"EMPTY" CONTAINER WARNING:

SECTION V: HEALTH AND HAZARD INFORMATION

EFFECTS OF OVEREXPOSURE (Signs and Symptoms of Exposure)
May cause eye, skin and upper respiratory tract irritation. Overexposure to compounds may cause allergic reactions. Nickel carbonate is a suspected animal carcinogen. Nickel compounds are mildly irritating to the eyes and can be harmful if swallowed.

NATURE OF HAZARD AND TOXICITY INFORMATION

Carcinogenicity: NTP: ___ Yes ___ No
IARC: XX Yes ___ No
OSHA: ___ Yes XX No
SECTION VI: PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

Boiling Point: N/A  
Vapor Pressure: N/A
Vapor Density (Air = 1)  
% Volatile by Weight: N/A  
Heavier than air  
% Volatile by Volume: N/A
Evaporation Rate: N/A  
Bulk Density: 0.5 grams per cubic centimeter
Odor: No odor  
Color: Light Green

SECTION VII: REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur.

SECTION VIII: ENVIRONMENTAL INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Eliminate all sources of ignition (flares, flames, including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Ventilate area of spill. Pick up the spill in a container for disposal. Wash area with water.

Dispose in closed containers in accordance with local, state and federal regulations.

SECTION IX: PROTECTION AND PRECAUTIONS

VENTILATION: Provide sufficient mechanical (general) and/or local exhaust ventilation to maintain exposure below TLVs.

RESPIRATORY PROTECTION: The use of respiratory protection is advised when concentrations are expected to exceed the established exposure limits (see Section 2). Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and canisters (NIOSH approved, if available) or supplied-air equipment.

PROTECTIVE GLOVES: Wear resistant gloves such as Neoprene.

EYE PROTECTION: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other types of safety glasses.

OTHER PROTECTIVE EQUIPMENT: Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

WORK PRACTICES/ENGINEERING CONTROLS
Keep containers and storage containers closed when not in use. Do not store near heat, sparks, flame or open flames.

PERSONAL HYGIENE: Minimize breathing dust. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry clean before reuse. Remove contaminated shoes and thoroughly clean before reuse. Wash thoroughly after contact, before breaks and meals, and at the end of the day.
SECTION X: TRANSPORTATION INFORMATION

TRANSPORTATION INCIDENT INFORMATION
For further information relative to spills resulting from transportation incidents, refer to the latest Department of Transportation Emergency Response Guidebook, DOT P 5800.5. Guide #27

DOT IDENTIFICATION NUMBER

Classifications: DOT Shipping Name: Not Regulated
DOT Hazard Class: Not Regulated
UN or NA Number:
Packing Group:

Material with a flash point of 100°F - 200°F are subject to the Hazardous Material Regulations only in 119 gallon containers or larger.

INTERNATIONAL TRANSPORTATION:

Hazardous Material: _____Yes _____No
For further information, refer to the latest IMCO Regulations.

AIR FREIGHT TRANSPORTATION:

Hazardous Material: _____Yes _____No
For further information, refer to the latest ICAO Regulations or IATA Regulations.

SECTION XI: SPECIAL COMMENTS

TSCA: All components are listed on TSCA Inventory: _____Yes _____No

SARA:
Section 302 Extremely Hazardous Substance List 40 CFR 355 _____Yes _____No
Section 313 Toxic Chemical List 40 CFR 372.65 _____Yes _____No

CAS No. Chemical Name % by Weight
N/A Nickel Compounds >99

CERCLA: Hazardous Substance List 40 CFR 302.4 _____Yes _____No
RQ Lbs.: ________

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