



Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard 29 CFR 1910.1200.
This standard must be consulted for specific requirements

IDENTITY (As used on label and list)

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Nickel Cadmium Battery Packs

Section I

Manufacturer's Name Milwaukee Electric Tool Corporation	Emergency Telephone Number 1-800-424-9300
Address (Number, Street) 13135 West Lisbon Road	Contact Telephone Number for Technical Information 262-781-3600 or 1-800-729-3878 (1-800-SAWDUST)
(City, State, and Zip Code) Brookfield, Wisconsin 53005	Date Prepared May 2004

Section II - Hazardous Ingredients/Identity Information

Hazardous Components [Specific Chemical Identity, Common name (s)]

Ingredient	% by Weight	OSHA Reg. Y/N	CAS #	OSHA PEL	ACGIH TLV	California Prop 65 Reg. Y/N	IARC/NTP Y/N
Cadmium	0-26	Y	7440-43-9	.005 TWA	.05 TWA		Y
Cadmium hydroxide	3-26	Y	21041-95-2	.005 TWA	.05 TWA		Y
Nickel (powder)	8-17	N/A	7440-02-0	1 TWA	1 TWA		N/A
Nickel hydroxide	0-12	N/A	12054-48-7	1 TWA	1 TWA		N/A
Potassium or sodium hydroxide	0-4	N/A	1310-58-3	2 Ceiling	2 Ceiling		N/A
Lithium hydroxide	0.4≥	N/A	N/A	N/A	N/A		N/A
Nickel oxide hydroxide	1.12	N/A	N/A	N/A	N/A		N/A
Non-Hazardous Materials	Balance						

DOT Hazard Classification: Non-hazardous

SARA Title III Section 313: This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372.

HMIS® Rating Numbers	Health	Flammability	Reactivity	Personal Protection	
	N/A	N/A	N/A	N/A	
Hazard Ratings:	0 = Minimum hazard A = Goggles	1 = Slight hazard B = Goggles + Gloves	2 = Moderate hazard C = Face Shield, Gloves + Apron	3 = Serious hazard X = Special, See sections VII & VIII of this sheet	4 = Severe hazard

Section III - Physical/Chemical Characteristics

Boiling Point >392°F	Specific Gravity (H ₂ O=1) >2.6
Vapor Pressure (mm/Hg.) N/A	Melting Point N/A
Vapor Density (Air=1) N/A	Evaporation Rate N/A
Solubility in Water Slightly soluble (electrolyte)	
Appearance and Odor Solid sealed in a case	

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) N/A	Flammable Limits N/A	LEL N/A	UEL N/A
Extinguishing Media Water, CO ₂			
Special Fire Fighting Procedures N/A			
Unusual Fire and Explosion Hazards Exposure to temperatures above 212°F can cause evaporation of the liquid content of the potassium hydroxide electrolyte resulting in rupture of the cell. Potential for exposure to cadmium fumes during fire; use self-contained breathing			

apparatus.

Section V - Reactivity Data

Stability	Unstable		Conditions to avoid: Heat, open flames, sparks, moisture.
	Stable	X	

Incompatibility (Material to avoid):

Acids, aldehydes, and carbonate compounds.

Hazardous Decomposition or Byproducts

Oxides of cadmium and nickel

Hazardous	May Occur		Conditions to avoid: N/A
Polymerization	Stable	X	

Section VI - Health Hazard Data

Route(s) of Entry: During normal use	Inhalation? N/A	Skin? N/A	Ingestion? N/A
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Health Hazards (Acute and Chronic)

N/A during normal use. The electrolyte may cause skin or eye irritation.

Signs and Symptoms of Exposure:

The electrolyte may cause skin or eye irritation. Flush immediately with water.

Medical Conditions Generally Aggravated by Exposure:

N/A during normal use.

Emergency and First Aid Procedures

If electrolyte contacts skin or eyes, flush area with clean water.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released if Spilled

Spill and leaks are unlikely. If disassembled avoid contact with skin and eyes.

Waste Disposal Method

Cadmium batteries are hazardous waste and should be disposed of according to Federal, state, and local regulations.

Precautions to Be Taken in Handling and Storing

Never short circuit cells. Personal injury and fire may result.

Other Precautions

If battery contents are released, do not touch spilled material. Take up with sand or other absorbent and place in container for disposal as a hazardous waste per Federal, state, and local regulations.

Section VIII - Control Measures

Respiratory Protection (Specify Type)

Unnecessary during normal use.

Ventilation	Local Exhaust	Special
	N/A	N/A
	Mechanical	Other
	N/A	N/A

Protective Gloves	Eye Protection
N/A during normal use.	N/A during normal use.

Other Protective Clothing or Equipment:

N/A

Work/Hygienic Practices

N/A

The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. MILWAUKEE ELECTRIC TOOL CORPORATION makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof.