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

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nickel Cadmium Battery Packs

Drawing Number: 58-97-1185
Issue Date: March 2015
Supersedes Date: November 2011

Milwaukee Electric Tool Corporation
13135 West Lisbon Road
Brookfield, Wisconsin USA 53005-2550
www.milwaukeetool.com

Company Phone Number: 1-262-781-3600 or 1-800-729-3878
Emergency Contact Number: 1-800-424-9300
Chemtrec: United States Only
For International: +1-703-741-5970

SECTION 2: HAZARDS IDENTIFICATION

Health	Environmental	Physical
Eye Irritation: No classified hazards	**Acute Toxicity:** No classified hazards	**Flammable liquid**: No classified hazards
Skin Irritation: No classified hazards	**Chronic Toxicity:** No classified hazards	
Acute Toxicity, Oral: No classified hazards		
Acute Toxicity, Inhalation: No classified hazards		

GHS Label
No applicable labeling

Hazard Statements	Precautionary Statements
No exposure during routine handling of product	

CLASSIFIED HAZARDS

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200. This SDS contains valuable information for the safe handling and proper use of this product. Save this SDS for future reference.

OTHER HAZARDS

Flammable:

Organic components will burn if cell is incinerated.

Potential Health Effects:

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

WARNING:

No exposure during routine handling of product. Hydrofluoric Acid exposure during firefighting: This information is given for the use of professional fire fighters responding to a warehouse fire where fire from other materials may incinerate batteries. This section is provided solely in case of exposure, during firefighting, to the combustion by-products.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Concentration
Cadmium	7440-43-9	0-26
Cadmium hydroxide	21041-95-2	3-26
Nickel (powder)	7440-02-0	8-17
Nickel hydroxide	12054-48-7	0-12
Potassium or sodium hydroxide	1310-58-3	0-4
Lithium hydroxide	N/A	0.4≥
Nickel oxide hydroxide	N/A	1.12
Non-Hazardous Materials	N/A	Balance

SECTION 4: FIRST AID MEASURES

No exposure during routine handling of product. Risk of exposure occurs only if the battery is mechanically or electrically abused.

No effect under routine handling and use to eyes, skin or if inhaled. Ingestion is not likely, given the physical size and state of the cell. If swallowed, seek medical attention immediately.

If exposure to internal materials within cell due to damaged outer casing the following actions are recommended:

EYE CONTACT:
Flush with water for 15 minutes without rubbing and immediately seek medical attention.

SKIN CONTACT:
Wash area immediately with soap and water. If irritation continues see medical attention.

INHALATION:
Leave area immediately and move to fresh air and seek medical attention.

INGESTION:
If swallowed, contact POISON CONTROL CENTER immediately.

SECTION 5: FIRE FIGHTING MEASURES

NFPA 704 Hazard Class
No data available

HMIS

0 (Minimal)
1 (Slight)
2 (Moderate)
3 (Serious)
4 (Severe)

SUITABLE EXTINGUISHING MEDIA:
Water spray, carbon dioxide, dry chemical powder or appropriate foam. Use agent appropriate for surrounding materials.

UNSUITABLE EXTINGUISHING MEDIA:
None.

PRODUCTS OF COMBUSTION:

Organic components will burn if incinerated. In case of fire in an adjacent area, use water, CO2, or dry chemical extinguishers if cells are packed in their original containers since the fuel of the fire is basically paper products.

PROTECTION OF FIREFIGHTERS:

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 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Use standard industrial clothing in normal use. If handling large containers of cells wear steel-toed footwear.

ENVIRONMENTAL PRECAUTIONS:

No special precautions necessary.

METHODS FOR CONTAINMENT:

Transport container outdoors. Hold burned cells and fire cleanup solids for disposal as potential hazardous waste. Unburned cells are not hazardous waste. Always consult and obey all international, federal and local environmental laws.

METHODS FOR CLEAN-UP:

No data available

OTHER INFORMATION:

No data available

SECTION 7: HANDLING AND STORAGE

HANDLING:

Use only approved charging equipment. Do not disassemble battery or battery pack. Do not puncture, crush or dispose of in fire.

STORAGE:

Store in a cool, dry place away from sparks and flame. Optimum storage temperature is between -31°F and 95°F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	OSHA PEL	ACGIH TLV	California Prop 65 Reg. Y/N	IARC/NTP Y/N
Cadmium	.005 TWA	.05 TWA	N	Y
Cadmium hydroxide	.005 TWA	.05 TWA	N	Y
Nickel (powder)	1 TWA	1 TWA	N	N
Nickel hydroxide	1 TWA	1 TWA	N	N
Potassium or sodium hydroxide	2 Ceiling	2 Ceiling	N	N
Lithium hydroxide	N/A	N/A	N	N
Nickel oxide hydroxide	N/A	N/A	N	N
Non-Hazardous Materials	N/A	N/A	N	N

EYE PROTECTION:

Not necessary under conditions of normal use

SKIN PROTECTION:

Not necessary under conditions of normal use

RESPIRATORY PROTECTION:

Not necessary under conditions of normal use

ENGINEERING CONTROLS:

Not necessary under conditions of normal use

GENERAL HYGIENE CONSIDERATIONS:

Not necessary under conditions of normal use

EXPOSURE GUIDELINES:

Not necessary under conditions of normal use

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Data represent typical values and are not intended to be specifications. NA=Not Applicable; ND=Not Determined

Physical state: ..... Solid
Colour: ..... NA
Odor: ..... Odorless
Odor Threshold: ..... NA
pH: ..... NA
Melting/Freezing Point: ..... NA
VOC Content: ..... NA
Boiling Point: ..... >392°F
Flash Point: ..... NA
Evaporation Rate: ..... NA
Specific Gravity: ..... >2.6

Viscosity: ..... NA
Upper Explosive Limits (vol % in air): ..... NA
Lower Explosive Limits (vol % in air): ..... NA
Vapor pressure: ..... NA
Vapor density: ..... NA
Relative density: ..... NA
Solubility: ..... NA
Partition Coefficient: ..... NA
Auto-ignition Temperature: ..... NA
Decomposition Temperature: ..... NA
Flammability (solid, gas): ..... Organic components will burn if cell is incinerated

SECTION 10: STABILITY AND REACTIVITY

INCOMPATIBLE MATERIALS:

Acids, aldehydes, and carbonate compounds

DECOMPOSITION PRODUCTS MAY INCLUDE:

Oxides of Nickel and Cadmium

CONDITIONS TO AVOID:

Do not crush, puncture, incinerate, immerse in water or heat over 212°F (100°C). Steel casing slowly dissolves in strong mineral acids.

POLYMERIZATION:

Hazardous polymerization will not occur. Spontaneous decomposition will not occur at normal temperature.

CHEMICAL STABILITY:

This product is stable.

REACTIVITY:

Hazardous polymerization will not occur. Spontaneous decomposition will not occur at normal temperature.

SECTION 11: TOXICOLOGY INFORMATION

LIKELY ROUTES OF EXPOSURE: Inhalation, Eye and Skin contact

None in routine handling of product.

Eye contact, skin contact, skin absorption, inhalation only if burned.

ACUTE SYMPTOMS AND EFFECTS:

Inhalation: No further toxicological data known
Eye contact: No further toxicological data known
Skin contact: No further toxicological data known
Ingestion: No further toxicological data known

OTHER:

No further data known.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

None in routine handling of product.

TOXICITY:

No data available

PERSISTENCE AND DEGRADABILITY (BIOPERSISTENCY & BIODEGRADABILITY):

None in routine handling of product.

POTENTIAL OF BIOACCUMULATION:

None in routine handling of product.

MOBILITY IN SOIL:

None in routine handling of product.

OTHER ADVERSE EFFECTS:

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Dispose in accordance with appropriate regulations. Always consult and obey all international, federal, provincial/state and local hazardous waste disposal laws. Some jurisdictions require recycling of this spent product. Battery recycling is encouraged.

This product does not contain mercury or Lithium (metal).

DO NOT INCINERATE or subject battery cells to temperatures in excess of 212°F (100°C).

SECTION 14: TRANSPORTATION INFORMATION

DOT HAZARDOUS MATERIAL INFORMATION:

Not otherwise DOT regulated.

SECTION 15: REGULATORY INFORMATION

FEDERAL REGULATIONS:

SARA 313 Information:

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.

Clean Water Act / Oil Pollution Act:

This product contains mineral oil and is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

CERCLA Reportable Quantity:

Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Releases of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

Toxic Substance Control Act:

The components of this product are listed on the TSCA Inventory.

Ozone Depleting Substances:

This product contains no ozone depleting substances as defined by the Clean Air Act.

Hazardous Air Pollutants:

Any components listed below are defined by the Federal EPA as hazardous air pollutants.

WHMIS: Canadian Workplace

This product does not contain regulated levels of any toxic chemical subject to the reporting requirements

SECTION 16: OTHER INFORMATION

ABBREVIATIONS:

TSCA ..... Toxic Substance Control Act
ICAO ..... International Civil Aviation Organization
IMDG ..... International Maritime Dangerous
OSHA ..... Occupational Safety and Health
IARC/NTP ..... International Agency for Research on Cancer/National Toxicology Program
SARA ..... Superfund Amendments and Reauthorization Act of 1986
ACGIH ..... American Conference of Governmental Industrial Hygienists

NIOSH/MSHA ..... National Institute for Occupational Safety Health/
Mine Safety and Health Administration
WHMIS .....Workplace Hazardous Materials Information System

Prepared by: Milwaukee Electric Tool Corporation

The batteries referenced herein are considered exempt articles and are not subject to the OSHA Hazard Communication Standard; therefore a SDS is not required. This sheet is being provided as a service to our customers.

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 thereto.