



The products referenced herein are "articles" under 29 CFR 1910.1200(c) and are not subject to OSHA's requirements for material safety data sheets under its Hazard Communication Standard, 29 CFR 1910.1200. This Product Data Sheet is provided as a service to our customers.

Section I - Product and Company Information

Identity: Nickel Cadmium (NiCd) Batteries
Models: All
Effective Date: February 24, 2017

Manufacturer
Motorola Solutions, Inc.
500 W. Monroe Street
Chicago, Illinois 60661 USA
Phone: 1-847-576-5000

Section II – Composition Information

Motorola Solutions battery packs contain NiCd cells from various manufacturers. NiCd cells are generally composed of the following major ingredients:

Cell component	Common chemical name / General name	CAS number	Concentration range
Positive electrode	Nickel metal	7440-02-0	8-20%
	Nickel hydroxide	12054-48-7	5-15%
Negative electrode	Cadmium metal	7440-43-9	10-27%
	Cadmium hydroxide	21041-95-2	10-27%
Electrolyte	Potassium hydroxide	1310-58-3	< 5%
	Sodium hydroxide	1310-73-2	
Other components	Nylon	n/a	< 3%
	Polypropylene		
	Steel	n/a	10-15%

Section III – Hazards Identification

Potentially hazardous materials are fully contained in a hermetically sealed case designed to withstand normal handling and use. Exposure could occur only if the battery or cells have been opened, disassembled, crushed, burned, exposed to high temperatures (> 60° C or 140° F), or subjected to other types of abuse. Exposure to cell contents may be harmful under some circumstances.

Follow instructions and precautions for safe use of the battery pack.

Section IV – First Aid Measures

Cell manufacturers recommend that in case of exposure to cell contents, wash affected area for at least 15 minutes with generous amounts of water and seek medical attention. The electrolyte is caustic and exposure may cause severe irritation or chemical burns.

Section V – Firefighting Measures

Fires involving these types of battery packs should be flooded with any available extinguishing media. Fires involving large quantities of batteries may produce toxic, corrosive, or irritating fumes.

Section VI – Accidental Release Measures

If batteries are spilled and damaged, they should be disposed of according to the disposal section.

Section VII – Handling and Storage

The battery pack and enclosed cells should not be opened, disassembled, crushed, burned, or exposed to high temperatures (> 60° C or 140° F).

Section VIII – Exposure Controls / Personal Protection

No personal protection is required during normal handling and use. Exposure to the ingredients contained within the cells within the battery pack could be harmful under some circumstances. In case of exposure to cell contents, wash affected area for at least 15 minutes with generous amounts of water and seek medical attention.

Section IX – Physical and Chemical Properties

These batteries are solid articles. Properties such as odor, pH, vapor pressure, solubility, etc. are not applicable.

Section X – Stability and Reactivity

Reactivity	None during normal handling and use
Incompatibility	None during normal handling and use
Hazardous Decomposition Products	None during normal handling and use
Conditions to Avoid	The battery pack and enclosed cells should not be opened, disassembled, crushed, burned, or exposed to high temperatures.

Section XI – Toxicological Information

There are no known toxicological properties of the batteries during normal handling and use.

Section XII – Ecological Information

There are no known ecological risks of the batteries during normal handling and use.

Section XIII – Disposal

All NiCd batteries are classified as a Hazardous Waste because of the presence of Cadmium. The materials contained within are classified as a hazardous waste because of toxicity, not corrosiveness and therefore must be disposed of properly. Motorola Solutions NiCd batteries contain recyclable materials. Recycling options available in your local area should be considered when disposing of this product. Do not dispose of in fire.

Section XIV – Transport Information

Motorola Solutions sealed NiCd battery packs are considered to be “dry cell” batteries and are not subject to dangerous goods regulations for purposes of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO), International Air Transport Association (IATA), International Maritime Dangerous Goods regulations (IMDG) and the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR 2015).

Air shipments must comply with ICAO and IATA Special Provision A123, which includes the requirement that “Any electrical battery or battery powered device having the potential of dangerous evolution of heat that is not prepared so as to prevent a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals) is forbidden from transport.” Any waybill accompanying a consignment of these batteries must contain the words “Non-restricted” and “Special Provision A123”.

DOT shipments must comply with Special Provision 130. This Special Provision has requirements which are similar to the requirements found in IATA Special Provision A123.

The requirements for shipping these batteries, in all modes of transportation, are that they be separated from each other to prevent short-circuits and to prevent movement that could lead to short-circuits. Products must also be packed in strong packaging that can withstand the rigors normal to transportation. These products are labeled in accordance to requirements for cargo shipments of NiCd batteries and cells.

Section XV – Regulatory Information

The products referenced herein are “articles” under 29 CFR 1910.1200(c) and are not subject to OSHA's requirements for material safety data sheets under its Hazard Communication Standard, 29 CFR 1910.1200.

Section XVI – Other Information

Notice: The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Motorola Solutions makes no warranty expressed or implied with respect to this information and recommendations and disclaims all liability from reliance on it.