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PRODUCT STEWARDSHIP

Compliance and Safety Information

Molex is committed to managing the use of chemical substances in accordance with government regulations, industry standards, and customer specific requirements in order to protect the environment and users of products.

The Molex products listed in the below table are in compliance with Directive 2013/56/EU (amending directive 2006/66/EC) and Directive 2006/66/EC (on batteries and accumulators and waste batteries and accumulators). This is based on the knowledge of materials used in the finished products and information provided by third parties.

Note: Zinc – manganese dioxide batteries, such as Molex thin film batteries, are not regulated as dangerous goods under IATA Dangerous Goods Regulations (Special Provision A123).

Molex Part Number	Part Description
13331-0002	Zn-MnO2 primary battery, voltage 1.5V (35mm x 35mm)
13299-0002	Zn-MnO2 primary battery, voltage 3V (36mm x 54mm)

RECYCLING IN USA

Carbon Zinc – These batteries are classified by the federal government as non-hazardous waste.

Place in the trash (normal municipal waste).

Exceptions: California – requires non-households to dispose of these batteries in accordance with the California Universal Waste Rules. Also, Minnesota (Hennepin County only) requires these batteries be disposed as a hazardous waste.

http://www.ehso.com/ehshome/batteries.php

Carbon-Zinc Batteries: Carbon-zinc batteries are not considered a RCRA-regulated (Resource Conservation and Recovery Act) hazardous waste. As with alkaline batteries, these batteries may be subject to state-regulation as a result of bioassay characterization criteria.

For example, California regulates zinc, a component of alkaline batteries, under the Toxicity characteristic. Both Washington and California hazardous waste regulations include bioassay characterization criteria. Bioassay characterization is a method of determining the potential toxicity of a material by observing its effect on the growth of a suitable animal, plant, or microorganism under controlled conditions. Under this waste criteria, alkaline and carbon-zinc batteries may be considered a state-regulated hazardous waste. Therefore, the generator must ensure he applies the most stringent regulations when considering hazardous waste disposal.

https://p2infohouse.org/ref/07/06033.htm

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SAFETY INFORMATION

In normal use and under the given working environment as mentioned in the Molex thin film battery datasheet, Molex thin film batteries should induce no harm or hazard. All our batteries are compliant with the European battery directive. General safety instructions are given below.

Short circuit: Connecting the two terminals together on one battery, or the opposite terminals together on multiple batteries, will cause a short circuit. A short circuit quickly discharges the battery completely. Short circuiting will not ignite the battery or cause any leakage of chemicals.

Danger of self-ignition: Unlike lithium-based power sources Molex thin film batteries are stable in normal storage and operating conditions. It is not possible to determine a self-ignition temperature.

Leakage: No leakage will occur in normal storage and operating conditions. Leakage may occur in temperatures above 100 °C (212 °F), or in condensing conditions. Hydrogen gas generation is negligible normal storage and operating conditions.

Ruptured batteries: Corrosive material may be released from a ruptured Molex thin film battery. Avoid direct skin and eye contact of ruptured Molex thin film batteries and their contents. Limitations for bending of Molex thin film battery products can be found in the Molex thin film battery datasheet.

Toxicological information: The following table reveals the substances classified as hazardous:

Substance	GHS Code	Hazard Statement
Manganese dioxide, MnO2	H302	Harmful if swallowed
	H332	Harmful if inhaled
Zinc Chloride, ZnCl2	H302	Harmful is swallowed
	H314	Causes severe skin burns and eye damage
	H410	Very toxic to aquatic life with long lasting effects
Zinc, ZN	H410	Very toxic to aquatic life with long lasting effects

Flame resistance: Cover material (e.g. MPET and PET) of batteries will ignite if exposed to fire.

Transportation: Zinc – manganese dioxide batteries, such as Molex thin film batteries are not listed as dangerous goods under the IATA Dangerous Goods Regulations. However, batteries in all modes of transportation (ground, air or sea) must be packed in a safe and responsible manner.

Storage: The batteries must be stored in original packages. Elevated or widely alternating temperature will result in shortened battery life and reduced electrical performance.

www.molex.com/link/thin-filmbattery.html

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