

Product: Lithium-ion Cathode

Applicable Product Varies
Numbers:

Date: 7/18/2018

Revision: Orig

Document Number: EHS-AIS-1005

ARTICLE INFORMATION SHEET (AIS)

This Article Information Sheet (AIS) is provided as a courtesy or in response to a customer request. A Safety Data Sheet (SDS) has not been prepared for this product because it is an Article. This AIS provides relevant battery information to consumers, OEMs and other users requesting a GHS-compliant SDS. Articles, such as batteries and electrodes, are exempt from GHS SDS classification criteria. The GHS criteria is not designed or intended to be used to classify the physical, health and environmental hazards of an article.

SECTION 1: COMPANY INFORMATION

Manufacturer:

EaglePicher Technologies, LLC
PO Box 47
Joplin, MO 64802
417-623-8000

www.eaglepicher.com

Emergency Telephone Number: Chemtrec 1-800-424-9300

SECTION 2: ARTICLE INFORMATION

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Description	Lithium-ion cathode material
Recommended Use	Lithium-ion battery cathode
Applicable Product Numbers	Varies
Article Construction	
Foil	Aluminum
Coating	Graphite, CAS 7782-42-5; Carbon Black; CAS 1333-86-4; Acetylene Black CAS 1333-86-4; Polyvinylidene Fluoride, CAS 24937-79-9; Lithium nickel cobalt aluminum oxide, CAS 177997-13-6

SECTION 3: HEALTH AND SAFETY

Normal conditions of Use	Cathodes are normally a component in a sealed lithium-ion battery.
First Aid – Eye Contact	Avoid eye contact. May cause irritation or burns. Immediately flush with running water for at least 15 minutes and then seek medical attention.
First Aid – Skin Contact	Avoid skin contact. May cause irritation or burns on skin contact. Immediately wash thoroughly with soap and water. If irritation develops seek medical attention.
First Aid – Inhalation	Avoid inhalation of dust. If irritation develops, move to fresh air and seek medical attention if irritation persists.
First Aid – Ingestion	Do not induce vomiting. Seek immediate medical attention. If mouth irritation or burning has occurred, rinse mouth and surrounding area with tepid water for at least 15 minutes. Call the National Battery Ingestion Hotline (202) 625-3333 collect, day or night.
Precautionary Statements	Prolonged and repeated exposure can cause lung damage. Damages the kidneys. Damages the spleen. Inhalation studies in rats have shown that several heavy metal compounds present a risk of inducing lung cancer. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Corrosive - Avoid respiratory system, skin and eye contact with cathode material. Wear chemical protective gloves, eye protection and full skin protection. Avoid handling in a manner that creates dust. Do not pierce or burn, even after use. Store in original container or sealed plastic bag.

SECTION 4: FIRE HAZARDS AND FIREFIGHTING MEASURES

Fire Hazard	Cathodes do not contain lithium metal but will burn if involved in a fire.
Extinguishing Media	Use any extinguishing media appropriate for the surrounding area. For incipient (beginning) fires, Class ABC extinguishers or copious amounts of water are effective in extinguishing the fire.
Advice for Fire Fighters	Firefighters should wear Self-Contained Breathing Apparatus and turnout gear.

SECTION 5: HANDLING AND STORAGE

Handling	Handle in a manner to avoid creation of dust. Wear protective gloves full skin protection. Avoid mechanical and electrical abuse. Do not install incorrectly. Do not directly heat or solder. Install cathodes in accordance with battery assembly instructions.
Storage	Store cathodes in a dry place at normal room temperature in a sealed container. Do not place near heating equipment or in direct sunlight.
Spills of Large Quantities of loose cathodes	Notify spill response personnel of large spills. Eliminate all ignition sources. Clean-up personnel should wear appropriate personal protective equipment to avoid respiratory, eye and skin contact. Carefully collect cathodes and place in appropriate container for disposal.

SECTION 6: DISPOSAL CONSIDERATIONS

Collection and Proper Disposal	Dispose of used (or excess) cathodes in accordance with federal, state/provincial and local regulations. This material may be recycled in some jurisdictions.
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SECTION 7: TRANSPORTATION INFORMATION

Regulatory Status	EaglePicher Technologies, LLC lithium ion cathodes are not regulated for transportation by under current DOT and/or IATA/ICAO regulations.
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SECTION 8: REGULATORY DEFINITIONS AND REQUIREMENTS - ARTICLES

USA OSHA 29 CFR 1910.1200(b)(6)(v)
USA TSCA 40 CFR 704.3; 710.2(3)(c); and [19 CFR 12.1209a]
EU REACH Title 1 - Chapter 2 - Article 3(3)
GHS Section 1.3.2.1

Globally Harmonized System (GHS)	GHS SDS requirements and classification criteria do not apply to articles or products (such as batteries) that have a fixed shape, which are not intended to release a chemical. The article exemption is found in Section 1.3.2.1.1 of the GHS and reads: <i>The GHS applies to pure substances and their dilute solutions and to mixtures. "Articles" as defined by the Hazard Communication Standard (29 CFR 1900.1200) of the OSHA of the USA, or by similar definition, are outside the scope of the system."</i>
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<p>Joint Article Management Promotion Consortium JAMP</p>	<p>An international standard that came into effect in March 2012 concerning declaration for electrical and electronic products. IEC 6274 replaces the defunct Joint Industry Guide – Material Declaration for Electro-technical Products (JIG-101-Ed 4.1 (May 21, 2012))</p>
<p>IEC 62474 Ed. 1.0 B:2012 Material Declaration for Products of and for the Electro-technical Industry</p>	<p>An international standard that came into effect in March 2012 concerning declaration for electrical and electronic products. IEC 6274 replaces the defunct Joint Industry Guide – Material Declaration for Electro-technical Products (JIG-101-Ed 4.1 (May 21, 2012))</p>
<p>IEC 62474 Database – Publically available online (http://std.iec.ch/iec62474). Maintained by TC11: Environmental Standardization for electrical and electronic products and systems.</p>	<p>The general principle for a substance to be included in the database as a declarable substance is: 1) existing national laws or regulations in an IEC member country that are relevant to Electro-technical products and that prohibit or restrict substances, or that have a labeling, communication, reporting or notification requirement, and 2) applying IEC 62474 criteria results in identification of declarable substance.</p>
<p>ANSI Z 400.1/Z19.1 (2010)</p>	<p>2.1 Scope: Applies to preparation of SDS for hazardous chemicals used under occupational conditions. Does not address how the standard may be applied to articles. It presents basic information on how to develop and write a SDS. Additional information is provided to help comply with state and federal environmental and safety laws and regulations. Elements of the standard may be acceptable for International use.</p>

DISCLAIMER: This AIS is intended to provide a brief summary of our knowledge and guidance regarding the use of this article. The information contained here has been compiled from sources considered by EaglePicher Technologies, LLC to be dependable and is accurate to the best of the Company’s knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations. This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. EaglePicher Technologies, LLC assumes no responsibility for injury to the recipient or third persons or for any damage to any property resulting from misuse of the product.