

## Product Safety Data Sheet

### SECTION 1: IDENTIFICATION

**Product Name:** KAIVAC LITHIUM ION BATTERIES

**Designations:**

Battery Name	Voltage	Rated Capacity
OBATT2	36V	15.4 Ah, 554Wh
EV012	36V	20 Ah, 720Wh

**Product Use:** Energy Source

**PSDS Date of Preparation:** January 13, 2020

**Company Identification:** Kaivac Inc.  
2680 Van Hook Ave.  
Hamilton, OH 45015

**Telephone Number for Information:** 800-287-1136

**Emergency Phone Number:** 800-287-1136 (United States of America)

### SECTION 2: HAZARDS IDENTIFICATION

These products are classified as Articles under REACH and are not subject to the requirements for Information in the Supply Chain (Safety Data Sheets and Labels). While batteries may release hazardous substances if damaged, this is not an intended release as defined under REACH. Batteries are not classified as hazardous under the CLP.

These products are also classified as Articles under the US OSHA Hazard Communication Standard 29CFR 1910.1200, Canada WHMIS and the GHS. A Safety Data Sheet is not required for these products.

The following information is provided to assist in the safe use of our products.

CAUTION: Battery can explode or leak if heated, disassembled, shorted, recharged, exposed to fire or high temperature or inserted incorrectly. Keep batteries away from children. Under certain misuse conditions and by abusively opening the battery, exposed lithium can react with water or moisture in the air causing potential thermal burns or fire.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

These batteries consist of the chemicals listed below in a sealed can. No exposure occurs under normal conditions of use.

Chemical Name	CAS Number	EINECS Number	Amount
Lithium Cobalt Oxide	12190-79-3	235-362-0	15-40%
Graphite	7782-42-5	231-955-3	10-30%
Phosphate (1-), hexafluoro-, lithium	21324-40-3	244-334-7	10-30%
Copper	7440-50-8	231-159-6	7-17%
Aluminum foil	7429-90-5	231-072-3	5-10%
Nickel	7440-02-0	231-111-4	1-5%

PVC (Chloroethylene, polymer)	9002-86-2	618-338-8	1-5%
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#### SECTION 4: FIRST AID MEASURES

**General Advice:** The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures; or is mechanically, physically, or electrically abused.

**Eye Contact:** If battery is leaking and material contacts the eye, flush thoroughly with copious amounts of running water for 30 minutes. Seek immediate medical advice.

**Skin Contact:** If battery is leaking and material contacts the skin, remove any contaminated clothing and flush exposed skin with copious amounts of running water for at least 15 minutes. If irritation, injury or pain persists, seek medical advice.

**Inhaled:** If battery is leaking, contents may be irritating to respiratory passages. Move to fresh air. If irritation persists, seek medical advice.

**Swallowed:** If battery is leaking and material is ingested, seek immediate medical attention. If mouth area irritation or burning has occurred, rinse the mouth and surrounding area with tepid water for at least 15 minutes. Do not give ipecac.

**Note to Physician:** Do not give ipecac.

#### SECTION 5: FIRE FIGHTING MEASURES

**Fire and Explosion Hazards:** Batteries may burst and release hazardous decomposition products when exposed to a fire situation.

**Extinguishing Media:** Use any extinguishing media that is appropriate for the surrounding fire.

**Special Fire Fighting Procedures:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Fight fire from a distance or protected area. Cool fire exposed batteries to prevent rupture. Use caution when handling fire-exposed containers (batteries may explode in heat of fire).

**Hazardous Combustion Products:** Thermal degradation may produce hazardous fumes of lithium, cobalt, nickel, oxides of carbon, and other toxic by-products.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

Notify safety personnel of large spills. Irritating vapors may be released from leaking or ruptured batteries. Eliminate all ignition sources. Evacuate the area and allow the vapors to dissipate. Clean-up personnel should wear appropriate protective clothing to avoid eye and skin contact and inhalation of vapors or fumes. Increase ventilation. Carefully collect batteries and place in an appropriate container for disposal. Remove spilled liquid with absorbent and contain for disposal.

#### SECTION 7: HANDLING AND STORAGE

Avoid mechanical or electrical abuse. DO NOT short circuit or install incorrectly. Batteries may explode, pyrolize or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries in accordance with equipment instructions.

**Storage:** Store batteries in a dry place at normal room temperature. Store locked up.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:** No exposure to the battery components should occur during normal use.

**Ventilation:** No special ventilation is needed for normal use.

**Respiratory Protection:** None required for normal use.

**Skin Protection:** None required for normal use. Wear protective gloves when handling leaking batteries.

**Eye Protection:** None required for normal use. Wear safety goggles when handling leaking batteries.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Leaking batteries will smell of medical ether.

Battery Name	Weight / Size (LxWxT)	Color	Voltage	Rated Capacity
OBATT2	4.45kg (9.81lbs) (388x110x75)mm (15.3x4.3x3.0)in.	Black	36V	15.4 Ah, 554Wh
EV012	4.45kg (9.81lbs) (218x188x71)mm (8.6x7.4x2.8)in.	Blue	36V	20 Ah, 720Wh

**Water Solubility:** Insoluble.

**Flash Point:** Not applicable.

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** This product is stable.

**Incompatibility/Conditions to Avoid:** Avoid prolonged exposure to moisture. Contents are incompatible with strong oxidizing agents. Do not heat, crush, disassemble, short circuit or recharge.

**Hazardous Decomposition Products:** Thermal degradation may produce hazardous fumes of lithium, cobalt, nickel, oxides of carbon, and other toxic by-products.

**Hazardous Polymerization:** Will not occur

## SECTION 11: TOXICOLOGICAL INFORMATION

### Potential Health Effects:

The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused.

**Eye Contact:** Contact with battery contents may cause severe irritation and possible damage.

**Skin Contact:** Contact with battery contents may cause irritation.

**Inhalation:** Inhalation of vapors or fumes released due to heat or a large number of leaking batteries may cause respiratory and eye irritation.

**Ingestion:** Swallowing is not anticipated for larger batteries due to battery size. Irritation to the internal/external mouth areas, may occur following exposure to a leaking battery.

## SECTION 12: ECOLOGICAL INFORMATION

No ecotoxicity data is available. This product is not expected to present an environmental hazard.

## SECTION 13: DISPOSAL INFORMATION

Disposal should be in accordance with national and local regulations. Do not incinerate for disposal except for in a controlled incinerator.

## SECTION 14: TRANSPORT INFORMATION

UN Number: UN3481  
Proper Shipping Name: Lithium Ion Batteries Packed with Equipment  
Class: 9  
Labels/Placards: Miscellaneous Lithium Battery

IATA: Ship in accordance with PI 966 Section 1

## SECTION 15: REGULATORY INFORMATION

**REACH:** These products are manufactured articles and not subject to REACH registration requirements.

**GHS/EU Labeling:** None Required

Labeling is not required because batteries are classified as articles under the both REACH and the CLP and as such are exempt from the requirement for labeling.

**US OSHA Status:** While the finished product(s) is considered an article and not covered by the OSHA Hazard Communication Standard, 29 CFR 1910.1200, this PSDS contains valuable information critical to the safe handling and proper use of the product".

## SECTION 16: OTHER INFORMATION

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Kaivac assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are no adhered to as stipulated in the data sheet. Furthermore, Kaivac assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.