

# SAFETY DATA SHEET (SDS)

BATTERY TENDER®

Revision RA

Date 07/16/2015

## **Section 1. Product and Company Identification**

**Product identifier:** Battery Tender® Lithium Portable Power Pack, PN 030-0001-XX, where XX is a regional designation. For example XX = WH for Western Hemisphere, based on the AC power grid connection to the battery charger supplied with the functional unit.

**Product name:** Battery Tender® Lithium Portable Power Pack

**Other means of identification / Synonyms:** None

**Recommended Use of the chemical and restrictions on use:**

**Recommended Use:** Appliances Containing Lithium Ion Batteries

**Uses advised against:** No information available

**Company name:**

DBT AUTO ELECTRICAL PRODUCTS Pte. LIMITED

30 CECIL STREET

#19-08 PRUDENTIAL TOWER

SINGAPORE 049712

Telephone Number: (386) 736-7900

**Emergency Telephone Number:**

Chemtrec

Telephone Number (USA) 1-800-424-9300

International Number +1 (703) 527-3887

## **Section 2. Hazards Identification**


This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) This product is an article which contains a hermetically sealed battery and **as such does not require an SDS per the OSHA hazard communication standard unless ruptured.** The hazards indicated are for a ruptured battery.

Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

Lithium Cobalt Oxide rechargeable batteries described in this SDS data sheet are hermetically sealed and designed to withstand temperatures and pressures encountered during normal use. Under normal conditions of use, there is no danger of ignition, explosion or chemical danger of hazardous materials leakage. The materials contained in the Lithium Cobalt Oxide batteries housed inside the Battery Tender® Lithium Portable Power Pack may only represent a hazard if the integrity of both the Battery Tender® Lithium Portable Power Pack and the Lithium Cobalt Oxide battery pack is compromised or if the Battery Tender® Lithium Portable Power Pack and the Lithium Cobalt Oxide battery pack are mechanically, thermally or electrically abused.

## GHS Label elements, including precautionary statements

### Emergency Overview

<b>Signal word</b>	Danger	
<b>Hazard Statements</b> Harmful in contact with skin Causes severe skin burns and eye damage May cause an allergic skin reaction Suspected of causing cancer Causes damage to organs through prolonged or repeated exposure		
		
This product contains a LiCoO <sub>2</sub> battery pack. In case of rupture: the above hazards may exist.		
<b>Appearance</b> Blue/Black/Green	<b>Physical State</b> Solid	<b>Odor</b> Odorless

**Potential Health Hazards:** Electrolyte may irritate the skin and eyes. In the event of a Lithium Cobalt Oxide battery pack rupture, electrolyte fumes/gases can cause serious damage to the eyes and can cause sensitization and irritation to the respiratory tract.

#### **Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Do not breathe dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves  
Do not eat, drink or smoke when using this product

#### **Precautionary Statements - Handling:**

Do not open or disassemble the Battery Tender® Lithium Portable Power Pack or the battery pack housed inside the Battery Tender® Lithium Portable Power Pack.  
Do not expose the Battery Tender® Lithium Portable Power Pack to fire or open flame.  
Do not short circuit, puncture, incinerate, crush, over-charge, over discharge, or expose the Battery Tender® Lithium Portable Power Pack to temperatures above the declared limit.  
Abuse of the Battery Tender® Lithium Portable Power Pack may result in the risk of fire or explosion.

#### **Precautionary Statements - Response**

Specific treatment (see on this label)  
Immediately call a POISON CENTER or doctor/physician  
Specific treatment (see supplemental first aid instructions on this label)

#### **Precautionary Statements – Storage:**

Store in a secured area.  
Maintain ambient storage temperature between 55°C and -30°C

#### **Precautionary Statements – Disposal:**

Dispose of contents/container to an approved waste disposal plant

## **Section 3. Composition/Information on Ingredients**

Constitutes (For the Whole Unit)

<b>Ingredient</b>	<b>Content (%)</b>	<b>CAS No.</b>	<b>EINECS</b>
Polypropylene (PP)	15.16	9003-07-0	--
Polyethylene (PE)	.058	9002-88-4	--
PCB	16.00	--	--
Polyvinyl Chloride (PVC)	2.34	9002-86-2	--
Rubber, natural	0.16	9006-04-6	232-689-0
Copper	5.36	7440-50-8	231-159-6
<b>Battery<sup>(1)</sup></b>	<b>54.00</b>	See Table Below	See Table Below
Iron (FE)	3.65	7439-89-6	231-096-4
Silicon dioxide	1.12	7631-86-9	231-545-4
Tin (SN)	1.63	7440-31-5	231-141-8

**Note (1): Battery Composition follows:**

<b>Ingredient</b>	<b>Content (%)</b>	<b>CAS No.</b>	<b>EINECS</b>
Lithium Cobalt Oxide (LiCoO <sub>2</sub> )	29	12190-79-3	235-362-0
Graphite	17	7782-42-5	231-955-3
Carbon Black	4	1333-86-4	215-609-9
Carbonate, Methyl, Ethyl	10	623-53-0	--
Phosphate(1-), Hexafluoro-, Lithium	9	21324-40-3	244-334-7
Copper (Cu)	16	7440-50-8	231-159-6
Nickel (Ni)	4	7440-02-0	231-111-4
Aluminum (Al)	11	7429-90-5	231-072-3

**CAS No.** (Chemical Abstracts Service)

**EINECS** (European Inventory of Existing Commercial chemical Substances)

**UN class:** UN3841

### **Watt Hour Rating for Battery Component**

<b>LiCoO<sub>2</sub> Battery Component of</b>	<b>Watt Hour</b>
030-0001-XX	37.19 Wh

Again, XX is a regional designation. For example XX = WH for Western Hemisphere, based on the AC power grid connection to the battery charger supplied with the functional unit.

## **Section 4. First Aid Measures**

**General:** In the event of a Lithium Cobalt Oxide battery fire or rupture, evacuate personnel from the contaminated area.

Then consult US DOT Emergency Response Guide (ERG) # 147 or IATA ERG Code 9F or IMDG EmS # F-A, S-1 as appropriate for the transport method being employed.

For each of the following cases: Eye contact, Inhalation, Skin contact, and Ingestion, seek medical attention immediately: call a Poison Center or doctor/physician.

**Eye contact:** Flush with plenty of water for several minutes (eyelids held open). Remove contact lenses, if present and easy to do. Continue rinsing.

**Inhalation:** Leave the contaminated area immediately. Provide oxygen or artificial respiration if needed.

**Skin contact:** Remove contaminated clothing. Wash the contacted area with soap and plenty of water for several minutes.

**Ingestion:** DO NOT INDUCE VOMITING. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. If the victim vomits, assure that the victim does not aspirate vomited material by use of positional drainage. Also assure that mucous or any other foreign matter does not obstruct the airway.

## **Section 5. Fire Fighting Measures**

**Suitable Extinguishing Media:** Plenty of water, Carbon dioxide gas, Chemical power, fire extinguishing medium and foam.

**Fire Fighting Procedures:** Use a positive pressure self-contained breathing apparatus if Lithium Cobalt Oxide batteries are involved in fire. Full protective clothing is necessary. During water application, caution is advised as burning pieces of flammable particles may be ejected from the fire.

**Hazardous Combustion products:** Fire, excessive heat and/or over voltage conditions may produce hazardous products (i.e. electrolyte fumes and hazardous organic vapors). Vapors may be heavier than air and may travel along the ground or be moved by ventilation to an ignition source.

## **Section 6. Accidental Release Measures**

Remove all personnel from the area immediately. Wear protective gloves and protective glasses. The spilled solids are to be put into a sealed plastic bag or container and disposed of properly (after cooling if necessary). Any leaked electrolyte should be wiped off with a dry cloth and disposed of properly (section 13). Do not inhale the gas and avoid skin contact. Do not bring collected materials close to the fire.

## **Section 7. Handling and Storage**

**Handling:** Do not open or disassemble the Battery Tender® Lithium Portable Power Pack. Do not expose the Battery Tender® Lithium Portable Power Pack to fire or store near open flame.

**Storage:** Battery Tender® Lithium Portable Power Pack should be stored in a well ventilated, cool area with sufficient clearance between the Battery Tender® Lithium Portable Power Pack and walls. Store the Battery Tender® Lithium Portable Power Pack in a cool (below 30°C) area and away from moisture. Keep the Battery Tender® Lithium Portable Power Pack away from sources of heat, open flames, food and drink. Do not store the Battery Tender® Lithium Portable Power Pack above 55°C or below -30°C. Storing at elevated temperatures will very likely reduce the life of the Lithium Cobalt Oxide batteries and also reduce the performance of the Battery Tender® Lithium Portable Power Pack. Keep the Battery Tender® Lithium Portable Power Pack away from strong oxidizers and acids. Elevated temperature storage such as 100°C may result in the internal batteries of the Battery Tender® Lithium Portable Power Pack venting flammable liquid and gases.

## **Section 8. Exposure Controls / Personal Protection**

No engineering controls are required for normal operation. In case of Lithium Cobalt Oxide battery cell leakage, increase the ventilation and use self-contained full-face respiratory equipment.

<b>Common Chemical Name/General Name</b>	<b>OSHA PEL-TWA</b>	<b>ACGIH (2015) TLV-TWA</b>
Lithium Cobalt Oxide	0.1 mg/m <sup>3</sup> (as cobalt fume)	0.02 mg/m <sup>3</sup> (as cobalt fume)
Carbon, as Graphitic	5.0 mg/m <sup>3</sup> (respirable fraction)	2.0 mg/m <sup>3</sup> (respirable fraction)
Electrolyte	Not Established	Not Established
Copper 7440-50-8	TWA: 0.2 mg/m <sup>3</sup> fume TWA: 1 mg/m <sup>3</sup> Cu dust and mist	TWA: 0.1 mg/m <sup>3</sup> fume TWA: 1 mg/m <sup>3</sup> dust and mist (vacated) TWA: 0.1 mg/m <sup>3</sup> Cu dust, fume, r
Aluminum 7429-90-5	TWA: 1 mg/m <sup>3</sup> respirable fraction	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) Al Aluminum

Nickel 7440-02-0	TWA: 1.5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup>
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OSHA: Occupational Safety and Health Administration.

PEL-TWA: Permissible Exposure Limits-Time Weighted Average Concentration.

AGGIH: American Council of Government Industrial Hygienists.

TLV-TWA: Threshold Limit Value-Time Weighted Average Concentration.

## Personal Protective Equipment

Not required during normal use of the Battery Tender® Lithium Portable Power Pack.

In the event of a Lithium Cobalt Oxide battery rupture or fire.

**Respiratory Protection:** Self-contained full-face respiratory equipment.

**Hand Protection:** Chemical protective gloves.

**Eye Protection:** Self-contained full-face respiratory equipment

**Skin and body protection:** Chemical-protective clothing.

## Section 9. Physical and Chemical Properties

Multi-Function: Electrical Power Supply / Engine Start Battery Booster Pack with Accessories	
Color: aluminous white	Appearance and character: Solid
Battery Pack Voltage: 12V	Odor: no
Battery Pack Charge Capacity: 3.35 Ah	Weight: .302 kg

## Section 10. Stability & Reactivity

**Stability:** Stable under normal conditions

**Incompatibility:** Electric materials, water, seawater, oxidant, acid.

**Conditions to Avoid:** Short circuit, collision, refit, high temperature (over 100 °C) direct sunshine and a high humidity environment.

**Decomposition Products:** Toxic gas brought when burning.

**Hazardous Polymerization:** Does not occur.

## Section 11. Toxicological Information

Ingredient	CAS No. (Chemical Abstracts Service)	EINECS	RETCS (Registry of Toxic Effects of Chemical Substances)
Polypropylene (PP)	9003-07-0	--	Not available
Polyethylene (PE)	9002-88-4	--	Not available
PCB	--	--	Not available
Polyvinyl Chloride (PVC)	9002-86-2	--	KV0350000
Rubber, natural	9006-04-6	232-689-0	Not available
Copper	7440-50-8	231-159-6	GL5325000
Iron (FE)	7439-89-6	231-096-4	Not available
Silicon dioxide	7631-86-9	231-545-4	VV7310000

Tin (SN)	7440-31-5	231-141-8	Not available
Lithium Cobalt Oxide (LiCoO <sub>2</sub> )	12190-79-3	235-362-0	Not available
Graphite	7782-42-5	231-955-3	MD9659600
Carbon Black	1333-86-4	215-609-9	FF5800000
Carbonate, Methyl, Ethyl	623-53-0	--	Not available
Phosphate(1-), Hexafluoro-, Lithium	21324-40-3	244-334-7	Not available
Copper (Cu)	7440-50-8	231-159-6	GL5325000
Nickel (Ni)	7440-02-0	231-111-4	QR5950000
Aluminum (Al)	7429-90-5	231-072-3	BD0330000

## **Section 12. Ecological Information**

When properly used or disposed of after use, the Battery Tender® Lithium Portable Power Pack, including its Lithium Cobalt Oxide battery pack does not present any environmental hazard.

## **Section 13. Disposal Considerations**

The Battery Tender® Lithium Portable Power Pack should be fully discharged prior to disposal. The alligator clamp accessories should be disconnected and any external electrical connection terminals should be capped to prevent a short circuit. Dispose the Battery Tender® Lithium Portable Power Pack in accordance with local, state and federal laws and regulations that apply to Lithium Cobalt Oxide batteries.

## **Section 14. Transportation Information**

The Battery Tender® Lithium Portable Power Pack has been tested and meets all the requirements of the UN38.3 test. These results are documented in the reports issued by Pony Testing International Group for the following part number: 035-0003 This part number represent the functional unit packaged in the point of sale retail item 030-0001-XX, where XX is a regional designation. For example XX = WH for Western Hemisphere, based on the AC power grid connection to the battery charger supplied with the functional unit.

### **Shipping by Air:**

**Proper Shipping Name:** LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

**Hazard Class:** 9

**UN Class:** UN3481

**Packing group:** II

**ERG Number:** 9F

Refer to all relevant transportation documents.

Lithium Ion batteries are regulated for air transportation by: IATA Dangerous Goods Regulations 56<sup>th</sup> Edition (2015) UPD3

### **Shipping by Ground:**

**Proper Shipping Name:** LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

**Hazard Class:** 9

**UN Class:** UN3481

**Packing group:** II

**ERG Number:** 147

**Special Provisions:** A54

Refer to all relevant transportation documents.

Lithium Ion batteries are regulated for ground transportation in the U.S. by: Part 49 of the Code of Federal Regulations, (49 CFR Sections 105-180). Refer to 172.101 Hazardous Material Table.

**Shipping by Sea:**

**Proper Shipping Name:** LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

**Hazard Class:** 9

**UN Class:** UN3481

**Packing group:** P903

**EmS Number:** F-A, S-1

Refer to all relevant transportation documents.

Lithium Ion batteries are regulated for ocean transportation by: International Maritime Dangerous Goods Code (Vol I & II with amendment 37-14)

## **Section 15. Regulatory Information**

The transportation of rechargeable Lithium Ion batteries and products containing Lithium Ion batteries is regulated by various bodies:

IATA (International Air Transport Association)

IMO (International Maritime Organization)

ADR (International Carriage of Dangerous Goods by Road)

US-DOT (US Department of Transportation)

UN (United Nations)

These regulatory bodies follow the United Nations (UN) "Recommendations on the Transport of Dangerous Goods, Model regulations, 16<sup>th</sup> Revised edition -2009-Ref. STSG/AC.10/1 Rev 16".

The Battery Tender® Lithium Portable Power Pack containing Lithium Ion batteries (specifically LiCoO<sub>2</sub> batteries) are assigned to UN3481 and are restricted by this regulation.

## **Section 16. Other Information**

The information contained in this material data sheet has been compiled from sources considered to be dependable and in the professional judgment of the DBT AUTO ELECTRICAL PRODUCTS Pte. LIMITED staff, this information is considered to be accurate and reliable as of the publishing date of this document. However, regardless of those stated intentions, there is no representation, no warranty (expressed or implied), or no guarantee made regarding the absolute accuracy, the absolute reliability or the absolute completeness of the information published in this document.

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