1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

PRODUCT IDENTIFIER

LITHIUM ION 12V BATTERY PACK

TRADE NAME (AS LABELED): LITHIUM ION 12V BATTERY PACK
MANUFACTURER PART NUMBER: 990738
BRADY MODEL NUMBER: BMP-UBP
PRODUCT DESCRIPTION: Brady, 3S1P, 11.1V, 2.2Ah, 24.42Wh (BAK Cell)
Brady, 3S1P, 11.1V, 2.25Ah, 24.98Wh (Moli Cell)

CHEMICAL NAME/CLASS: Lithium Cobalt Dioxide Chemistry
SYNONYMS: Lithium Ion Cells
PRODUCT USE: Battery Pack
UN NUMBER: See Section 14 for Shipping Information
HAZCHEM CODE (Australia): 4W

SUPPLIER OF THE SAFETY DATA SHEET

U.S. SUPPLIER/MANUFACTURER'S NAME: Brady Worldwide
ADDRESS: 6555 West Good Hope Road
Milwaukee, WI 53223 USA
(414) 358-6600 [8 am to 5 pm CT]
Infotrac: 1-800-535-5053 (U.S. and Canada) [24 hours]

BUSINESS PHONE: (414) 358-6600

EUROPEAN SUPPLIER/DISTRIBUTOR'S NAME: WH Brady NV
ADDRESS: Linestraat 20
Industriepark C3
B - 9240 ZELE
BELGIUM
(0032/(0)52.45.79.05 [9 am to 5 pm]
EMAIL: REACH_Americas@bradycorp.com
DATE OF PREPARATION: December 9, 2010

NOTE: This product is defined as an “Article” under the U.S. Federal OSHA Hazard Communication Standard (29 CFR 1910.1200), EU Directives, and the Canadian Workplace Hazardous Materials Standard. Refer to Section 15 (Regulatory Information) for specific regulatory citations. As an article, this product presents negligible health and physical hazards under reasonably anticipated circumstances of use. Subsequently, a Material Safety Data Sheet is not required under Standards cited above. This document is prepared to provide persons using this product with additional safety information.

2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION AND EU CLP REGULATION (EC) 1272/2008 LABELING AND CLASSIFICATION: This product is an article and is not required to be classified under CLP Regulation (EC) 1272/2008.

Classification: Not Applicable
Hazard Statements: Not Applicable

EU LABELING AND CLASSIFICATION 67/548/EEC: This product is an article and has no requirements under European Union Council Directive 67/548/EEC and subsequent Directives.

Classification: Not Applicable
Risk Phrases: Not Applicable
Safety Phrases: Not Applicable

The lithium ion cell ingredients are contained in a hermetically sealed case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, hazardous materials are fully contained inside the battery. The battery should not be crushed, deformed, punctured, opened or exposed to heat because exposure to the ingredients contained within could be harmful under some circumstances. The following information is provided for the user's information only.

EMERGENCY OVERVIEW: Product Description: This product is a lithium ion battery. Health Hazards: This product is considered a manufactured article and presents negligible health, or reactivity hazards under typical use conditions. If exposure to the electrolyte solution occurs from puncture, heating or other destruction of the outer case, contact with the solution may be harmful by inhalation, skin or eye contact. Inhalation of fumes from burning electrolyte solution may cause burns to respiratory system. Skin or eye contact with the electrolyte solution may also produce burns, especially if contact is prolonged. Flammability Hazards: Batteries can explode during a fire. If involved in a fire, this product can burn and produce toxic gases (e.g. carbon monoxide, carbon dioxide, hydrogen fluoride, phosphine, phosphorous oxides, lithium oxides, lithium hydroxide, nickel oxides, copper oxides and other metal oxides). During a fire involving this product care should be taken to avoid inhalation of fumes. During charging of this battery, a lithium graphite intercalation phase is formed (where lithium and graphite molecules are combined), which is highly flammable and corrosive, but is not released under normal circumstances. Reactivity Hazards: The electrolyte solution can react with water to form hydrofluoride acid. Contact with the anodes can produce hydrogen gas. Environmental Hazards: This product is not expected to cause harm if released to the environment. Emergency Response Considerations: Emergency responders must wear proper personal protective equipment (and have appropriate fire protection) suitable for the situation to which they are responding.
3. COMPOSITION and INFORMATION ON INGREDIENTS

The following materials are part of the core of the battery cells:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>EU EINECS #</th>
<th>JAPANESE E NCI #</th>
<th>AUSTRALIAN AICS</th>
<th>Korean ECL #</th>
<th>% w/w</th>
<th>EU Classification (67/548/EEC)</th>
<th>GHS &amp; EU Classification (1272/2008)</th>
<th>Risk Phrases/Hazard &amp; Precautionary Statements</th>
</tr>
</thead>
</table>

Nickel, inert polymers and other trace compounds:


The following materials are in the electrolyte mixture in the battery cells:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>EU EINECS #</th>
<th>JAPANESE E NCI #</th>
<th>AUSTRALIAN AICS</th>
<th>Korean ECL #</th>
<th>% w/w</th>
<th>EU Classification (67/548/EEC)</th>
<th>GHS &amp; EU Classification (1272/2008)</th>
<th>Risk Phrases/Hazard &amp; Precautionary Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium Hexafluorophosphate (LiPF6)</td>
<td>21324-40-3</td>
<td>244-334-7</td>
<td>Unlisted</td>
<td>Listed</td>
<td>KE-22564</td>
<td>Proprietary</td>
<td>EU 67/548 Hazard Classification: Not Applicable.</td>
<td>GHS &amp; EU 1272/2008 Classification: Not Applicable.</td>
<td></td>
</tr>
</tbody>
</table>

The following materials are for the battery cell electrodes:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>EU EINECS #</th>
<th>JAPANESE E NCI #</th>
<th>AUSTRALIAN AICS</th>
<th>Korean ECL #</th>
<th>% w/w</th>
<th>EU Classification (67/548/EEC)</th>
<th>GHS &amp; EU Classification (1272/2008)</th>
<th>Risk Phrases/Hazard &amp; Precautionary Statements</th>
</tr>
</thead>
</table>

See Section 16 for full text of Ingredient Risk Phrases and Precautionary Codes.

PART II What should I do if a hazardous situation occurs?

4. FIRST-AID MEASURES

EYE or SKIN CONTACT: If skin or eye contact occurs to electrolyte solution, flush for 20 minutes. Contact physician or other medical health professional.

INHALATION: If any adverse effect occurs as a result of inhalation of fumes from thermal decomposition of the electrolyte solution during fire or other heating of battery, remove individual to fresh air. Seek medical attention if adverse effect occurs after removal to fresh air.

INGESTION: Not a potential route of exposure.

IMPORTANT SYMPTOMS AND EFFECTS: Acute: None. Chronic: None.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No medical conditions are known to be aggravated by this product.

IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Treat symptoms and eliminate exposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

FLAMMABLE LIMITS (in air by volume, %): Not applicable.

FIRE EXTINGUISHING MEDIA: Dry chemical powder, dry sand or dolomite or other metal fire extinguishing material. Carbon dioxide should only be used on incipient fires.

UNSUITABLE FIRE EXTINGUISHING MEDIA: Water.

SPECIAL FIRE AND EXPLOSION HAZARDS: Batteries can explode in a fire. Contact with the electrolyte solution and water can produce hydrofluoric acid. Contact with water and the charged anode will produce hydrogen gas. Products of thermal decomposition can include produce toxic gases (e.g. carbon monoxide, carbon dioxide, hydrogen fluoride, phosphate, phosphorous oxides, lithium oxides, lithium hydroxide, nickel oxides, copper oxides and other metal oxides).

Damaged or opened cells or batteries can result in rapid heating and the release of flammable vapors. Vapors may be heavier than air and may travel along the ground or be moved by ventilation to an ignition source and flash back.

Explosion Sensitivity to Mechanical Impact: Not applicable.

Explosion Sensitivity to Static Discharge: Not applicable.

ADVICE TO FIRE-FIGHTERS: Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment.
6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Eliminate all sources of ignition before cleanup begins. Use non-sparking tools. The atmosphere must have levels of components lower than those listed in Section 8, (Exposure Controls and Personal Protective Equipment) if applicable, and have at least 19.5 percent oxygen before personnel can be allowed into the area without Self-Contained Breathing Apparatus (SCBA).

PERSONAL PROTECTIVE EQUIPMENT: For clean-up of leaking electrolyte solution, proper protective equipment should be used. In the event of a spill, clear the area and protect people.

   Small Spills: Wear rubber gloves, splash goggles, and appropriate body protection.
   Large Spills: Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard hat, and Self-Contained Breathing Apparatus.

METHODS FOR CLEAN-UP AND CONTAINMENT: No special accidental release measures are required for non-damaged batteries. Damaged batteries that are not hot or burning should be placed in a sealed container and disposed of according to all disposal regulations.

   Small Spills: Wipe up spilled liquid with poly pads or other suitable absorbent materials. Wash contaminated area with soap and water, absorb with paper towels, and rinse with water.
   Large Spills: Trained personnel following pre-planned procedures should handle non-incident releases. Absorb spilled liquid with dry sand or other suitable non-reactive absorbent materials. Prevent material from entering sewer or confined spaces, waterways, soil or public waters. Monitor area and confirm levels are below exposure limits given in Section 8 (Exposure Controls-Personal Protection), if applicable, before non-response personnel are allowed into the spill area.

   All Spills: Place all spill residue in an appropriate container and seal. Decontaminate the area thoroughly. If necessary, discard all stained response equipment or rinse with soapy water before returning such equipment to service. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

ENVIRONMENTAL PRECAUTIONS: Prevent any spill residue from entering sewer or confined spaces.

PART III How can I prevent hazardous situations from occurring?

7. HANDLING and STORAGE

PRECAUTIONS FOR SAFE HANDLING: Never store different types of batteries or batteries with different chemistry together. Store away from acids, sources of heat or flame, or other incompatible materials as listed in Section 10 (Stability and Reactivity).

Should a battery unintentionally be crushed, thus releasing its contents, rubber gloves must be used to handle all battery components. Avoid inhalation of any vapors that may be emitted. In the event of skin or eye exposure to the electrolyte, refer to Section 4, First Aid Measures. Batteries should be separated from other materials and stored in a noncombustible, well ventilated, sprinkler-protected structure with sufficient clearance between walls and battery stacks.

The following information is from the Brady Lithium Battery Instructions and Precautions document:

LITHIUM-ION BATTERY HANDLING PRECAUTIONS

Before using the battery pack, read these important instructions. Failure to follow these instructions may result in electric shock, fire, and/or serious personal injury.

1. Do not disassemble, open, or modify the battery. Incorrect reassembly may result in the risk of electric shock, fire or exposure to battery chemicals. If it is damaged, replace the battery.
2. Do not short circuit a cell or battery. A battery will short circuit if a metal object makes a connection between the positive and negative contacts on the battery. Do not transport or store the battery pack together with metal objects such as necklaces, hair pins, etc. A short circuited battery may cause fire and personal injury.
3. Do not expose cells or batteries to heat or fire avoid storage in direct sunlight. Batteries may explode, causing personal injury or damage. Toxic fumes and materials are created when batteries are burned.
4. Do not expose the battery to water or rain, or allow it to get wet. Otherwise, the protective features in the battery pack can be damaged; the pack can exhibit extremely high current and or voltage, abnormal chemical reactions may occur in the pack, possibly leading to overheating, smoke emission, bursting and/or ignition.
5. Do not crush, drop, or damage batteries. Do not use the battery that has received a sharp blow, been dropped, run over, or damaged in any way (e.g., pierced with a nail, hit with a hammer, stepped on).
6. Observe the plus (+) and minus (-) marks on the cell, battery and equipment and ensure correct use. If you cannot easily connect the battery pack to the battery pack charger or other equipment, confirm that the correct AC charger adapter specifically designed for charging is used for charging, or terminals are correctly oriented for operation. Reversing the terminals or using the improper charger adapter will result in reverse-charging and abnormal chemical reaction may occur, then possibly leading to acid leakage, overheating, smoke emission, bursting and/or ignition of the battery pack.
7. Recharge the battery pack inside printer by powering printer with the printer power adapter, or recharge outside the printer using the charger adaptor specifically designed for that purpose and observe the recharging conditions specified by the manufacturer. A recharging operation under non-conforming recharging conditions (beyond the limits of temperature and larger voltage/current than specified) can cause the battery pack to be overcharged, or charged with extremely high current, abnormal chemical reaction can occur in it, possibly leading to overheating, smoke emission, bursting and/or ignition.
8. Do not use the battery pack for a purpose other than those specified. Misuse of battery pack may damage the battery pack, shorten battery pack life, result in risk of fire, electric shock or personal injury.
7. HANDLING and STORAGE (Continued)

CONDITIONS FOR SAFE STORAGE: Do not expose the battery pack or printer to water or rain, or allow them to get wet. This may damage the battery pack or printer. Do not use oil or solvents to clean or lubricate the battery. The plastic casing will become brittle and crack, causing a risk of injury. Store the battery pack in a cool, dry place. Do not store battery where temperatures may exceed 120°F (50°C) such as in direct sunlight, a vehicle or metal building during summer. Charger will charge the battery when the battery’s internal temperature is between 32°F (0°C) and 113°F (45°C). When the battery pack temperature range is outside that range, charging will not occur. Dispose of Brady Lithium Ion Batteries according to federal, state and local regulations. Contact a recycling agency in your area for recycle locations.

SPECIFIC END USE(S): Battery pack.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: No engineering controls are required for handling batteries that have not been damaged.

EXPOSURE LIMITS/CONTROL PARAMETERS: The following limits are for the components of the electrolyte solution only.

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>ACGIH-TLVs</th>
<th>OSHA-PELs</th>
<th>NIOSH-RELs</th>
<th>NIOSH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TWA mg/m³</td>
<td>STEL mg/m³</td>
<td>TWA mg/m³</td>
<td>STEL mg/m³</td>
<td>IDLH mg/m³</td>
</tr>
<tr>
<td>Ethylene Carbonate</td>
<td>96-49-1</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Dimethyl Carbonate</td>
<td>616-38-6</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Lithium Hexafluorophosphate</td>
<td>21324-40-3</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

NE = Not Established. See Section 16 for Definitions of Other Terms Used

SAFE WORK AND HYGIENE PRACTICES: Do not short circuit, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the declared operating temperature range of the product.

RESPIRATORY PROTECTION: No special respiratory protection is required for use of this product during normal use.


BODY/SKIN PROTECTION: No special body or skin protection is normally required for use of this product. If a hazard of injury to the feet exists due to falling objects or rolling objects use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-02, Protective Footwear.

9. PHYSICAL and CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): Not applicable.

SPECIFIC GRAVITY (water = 1): Not available.

SOLUBILITY IN WATER: Insoluble.

VAPOR PRESSURE: Not applicable.

ODOR: Not applicable.

HEAT OF COMBUSTION: Not available.

OXIDIZING PROPERTIES: Not an oxidizer.

COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not applicable.

APPEARANCE, ODOR AND COLOR: This product is a lithium ion battery.

10. STABILITY and REACTIVITY

REACTIVITY: Intact batteries are not reactive. If the electrolyte solution inside the battery contacts water, a reaction generating heat may occur.

CHEMICAL STABILITY: Stable.

DECOMPOSITION PRODUCTS: Combustion: carbon monoxide, carbon dioxide, hydrogen fluoride, phosphine, phosphorous oxides, lithium oxides, lithium hydroxide, copper oxides and other metal oxides). Hydrolysis: Contact with water and the charged anode will produce hydrogen gas.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: The electrolyte solution is incompatible with potassium tert-butoxide, oxidizers, reducing agents, acids and alkalies.

POSSIBILITY OF HAZARDOUS REACTION OR POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid damaging batteries in any way that could release electrolyte solution. Avoid exposure to heat, flame, or other ignition source. Avoid contact with water. Avoid overcharging of batteries or other conditions as described in Section 7 (Handling or Storage).
PART IV  Is there any other useful information about this material?

11. TOXICOLOGICAL INFORMATION

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:

INHALATION: Under normal conditions of use and handling, no inhalation hazard is present. If battery is heated fumes from the electrolyte solution can cause moderate to severe irritation of the respiratory system.

SKIN or EYE CONTACT: Under normal conditions of use and handling, no skin or eye hazard is present. If the battery case is punctured or otherwise damaged so that contact with the electrolyte solution occurs, contamination of the skin or eyes can be highly irritating or cause burns. Fumes from heated electrolyte solution will cause irritation of the eyes.

SKIN ABSORPTION: Some components of the electrolyte solution may be absorbed via intact skin. Due to the small amount of solution in the battery, significant toxic effect by this route of exposure is not expected.

INGESTION: Ingestion is not a likely route of exposure to the electrolyte solution.

INJECTION: Injection is not a likely route of exposure to the electrolyte solution.

HEALTH EFFECTS OR RISKS FROM EXPOSURE:

ACUTE: There is no health hazard anticipated to occur during routine use of this product. If damage or heating of the battery occurs, contact with the electrolyte solution or fumes from heating of the solution may cause moderate to severe irritation of skin, eyes and respiratory system.

CHRONIC: None known.

TARGET ORGANS: ACUTE: Respiratory system, skin, eyes (fumes from thermal decomposition). CHRONIC: None.

TOXICITY DATA: The following toxicity data is presented for components of the electrolyte solution only.

**DIMETHYL CARBONATE:**
- LD₅₀ (Oral-Rat) 13 gm/kg
- LD₅₀ (Oral-Mouse) 6 gm/kg
- LD₅₀ (Skin-Rabbit) > 5 gm/kg
- LD₅₀ (Intraperitoneal-Rat) 1600 mg/kg
- LD₅₀ (Intraperitoneal-Mouse) 800 mg/kg

**ETHYLENE CARBONATE:**
- Open Irritation Test (Skin-Rabbit) 660 mg: Mild
- LD₅₀ (Oral-Rat) 10 gm/kg
- LD₅₀ (Skin-Rabbit) > 3 gm/kg
- LD₅₀ (Intraperitoneal-Mouse) 500 mg/kg

**CARCINOGENICITY:** No components of the electrolyte solution are listed by agencies tracking the carcinogenic effect of chemical compounds. Some components of the case material are listed. Due to the physical nature of this product, carcinogenicity is not a hazard for this product.

IRRITANCY OF PRODUCT: This product is not irritating under normal circumstances of use or handling. Fumes from thermal decomposition are irritating by inhalation, skin or eye contact.

SENSITIZATION TO THE PRODUCT: Contact with this product does not pose a hazard of sensitization.

REPRODUCTIVE TOXICITY INFORMATION: As an article, this product is not expected to cause mutagenic, embryotoxic, teratogenic, or reproductive effects in humans.

ACGIH BIOLOGICAL EXPOSURE INDICES: None established

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

MOBILITY IN SOIL: Due to the form of this product, it is unlikely that it will be mobile in the soil.

PERSISTENCE AND BIODEGRADABILITY: This product has not been tested for persistence or biodegradability. The case of this product will not biodegrade.

BIO-ACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential. Some materials within the cell are bio-accumulative. Under normal conditions, these materials are contained and pose no risk to persons or the surrounding environment.

ECOTOXICITY: This product is not expected to cause significant harm to plant and animal-life; however, all disposal should be according to current regulations. This product has not been tested for aquatic toxicity. All release of this product into an aquatic or terrestrial environment should be prevented.

RESULTS OF PBT and vPvB ASSESSMENT: No data available. PBT and vPvB assessments are part of the chemical safety report required for some substances in European Union Regulation (EC) 1907/2006, Article 14.

ENVIRONMENTAL EXPOSURE CONTROLS: Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT AND DISPOSAL METHODS: Dispose of in accordance with applicable International, Federal, State, and local procedures and standards. Batteries should be completely discharged prior to disposal and/ or the terminals taped or capped to prevent short circuit. When completely discharged it is not considered hazardous. Lithium ion batteries must be handled in accordance with all applicable state and federal laws and regulations.

In the U.S. Lithium ion batteries are recyclable in the U.S. through the Rechargeable Battery Recycling Corporation's (RBRC) Charge Up to Recycle! Program. For information call 1-800-8-BATTERY or see their website at www.rbrc.org.

In the EU manufacturing, handling and disposal of batteries is regulated under Directive 2006/66/EC. Specific information on disposal of batteries by country can be found at website of the European Portable Batteries Association (http://www.epbaeurope.net/legislation_national.html).
13. DISPOSAL CONSIDERATIONS (Continued)

PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING: Do not mix different types of batteries with different chemistries in the same containers for disposal.

U.S. EPA WASTE NUMBER: Not applicable.

EWC WASTE CODE: 16 06 05: Other batteries and accumulators. 16 06 06: Electrolyte from batteries and accumulators. 17 04 07 Mixed metals.

14. TRANSPORTATION INFORMATION

This lithium ion battery pack is shipped according to the applicable transportation regulations listed on this MSDS:

- U.S. Department of Transportation (DOT) Subchapter C of the Hazardous Materials Regulations,
- UN Recommendations on the Transport of Dangerous Goods,
- International Civil Aviation Organization (ICAO) Technical Instruction for the Safe Transport of Dangerous Goods by Air,
- International Aviation Transportation Association (IATA) Dangerous Goods Regulations,
- International Maritime Organization (IMO),
- Transport Canada Transportation of Dangerous Goods Regulations (TDG),
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR),
- Singapore Standard 286: Part A, and
- Australian Federal Office of Road Safety Code for the Transportation of Dangerous Goods by Road or Rail.

This lithium ion battery pack may be shipped according to the special provisions, exceptions and exemptions specified in the regulations listed above. Always refer to the latest transportation regulations prior to shipping this product as regulations may have changed. The individuals shipping this product are required by law to trained in the proper preparation and shipment of dangerous goods and hazardous materials.

LITHIUM ION BATTERY PACK (Li-Ion BP) CHARACTERISTICS FOR TRANSPORTATION CLASSIFICATION:

Li-Ion BP is a Small Secondary Rechargeable Battery containing 3 Lithium ion cells:

1. Energy Rating
   a. Nominal (Li-Ion BP) Amp Hour rating is 2.300 AHr
   b. Nominal (Li-Ion BP) energy is 24.42 Wh.
   c. Li-Ion BP Wh rating is marked on the outside of each individual battery case

2. Li-Ion BP Cell Chemistry is not Lithium Metal
   a. Li-Ion BP cell chemistry is Lithium ion
   b. Li-Ion BP is rechargeable
   c. Li-Ion BP Equivalent Lithium Content (ELC) is 1.98 gram/battery
   d. ELC of each cell within battery is 0.66 g.

3. Weight
   a. Li-Ion BP weight is 205 grams without packaging or booklet

4. UN Manual of Tests and Criteria, Part III, Subsection 38.3
   a. Li-Ion BP Assembly has passed Tests 1 through 8.
   b. Li-Ion BP Cells have passed Tests 1 through 8
   c. Documentation confirming the batteries have been so tested is available on Brady website.

5. Li-Ion BP has Built-In Safety Features
   a. Li-Ion BP has internal short-circuit protection circuit
   b. Li-Ion BP has internal circuitry designed to prevent reversed polarity current flow

6. Li-Ion BP has passed 1.2 M Drop Test
   a. Individual batteries have passed 1.2 M Drop Test
   b. Fully packed carton as shipped from manufacturer has passed 1.2 M Drop Test

7. Li-Ion BP is not considered a marine pollutant

8. Li-Ion BP has solid cathode.

15. REGULATORY INFORMATION

INTERNATIONAL CHEMICAL INVENTORIES: This product is considered an article under the chemical inventories listed below and consequently is exempt from listing on these inventories:

- U.S. EPA Toxic Substance Control Act (TSCA)
- Canadian DSL Inventory
- Canadian Chemical Registration Regulations (NDSL/DSL)
- European Inventory of Existing Chemical Substances (EINECS/ELINCS)
- Singapore Code of Practice on Pollution Control Requirements
- Australian Inventory of Chemical Substances (AICS)
- Japanese Existing and New Chemical Substance List (ENCS)
- Korean Existing Chemicals List (ECL)

However, based on the rules enforced with regards to the marketing and use of chemicals to manufacture this product, each chemical component of this finished product has been listed or exempt from the listed chemical inventories.
15. REGULATORY INFORMATION (Continued)

OTHER INTERNATIONAL REGULATIONS: As an article this product has no requirements under the following U.S. and International regulations:
- U.S. SARA Reporting & Threshold Planning Quantity (TPQ) Requirements
- U.S. CERCLA Reportable Quantity (RQ)
- California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
- Canadian WHMIS Regulations (Hazardous Products Act, 6&7, Part II (Sections 11 and 12)).
- Canadian Environmental Protection Agency (CEPA) Priorities Substances Lists
- European Union Labeling/Classification (EU DIRECTIVE 37/548/EEC)
- Australian Standard for the Uniform Scheduling of Drugs and Poisons
- Japanese Minister of International Trade and Industry (MITI).
- Japanese Poisonous and Deleterious Substances Control Law
- Singapore Code of Practice on Pollution Control Requirements

ADDITIONAL EUROPEAN UNION REGULATIONS:
GLOBAL HARMONIZATION AND EU CLP REGULATION (EC) 1272/2008 LABELING AND CLASSIFICATION: Not applicable as articles.

Classification: Not Applicable  Signal Word: Not Applicable  Hazard Statements: Not Applicable
Precautionary Statements: Not Applicable  Hazard Symbols: Not Applicable

EU 67/548/EEC LABELING/CLASSIFICATION: Not applicable as articles.

EU Classification: Not Applicable  EU Risk Phrases: Not Applicable
EU Safety Phrases: Not Applicable  EU Hazard Symbol: Not Applicable

EU REACH Directive 1907/2006 SUBSTANCES OF VERY HIGH CONCERN (SVHC) STATUS: Not available
EU RoHS Directive 2002/95/EC: Internal circuitry of Li-ion BP is RoHS compliant.

16. OTHER INFORMATION

EU LABELING AND CLASSIFICATION FOR COMPONENTS:
LABELING AND CLASSIFICATION FOR COMPONENTS UNDER GLOBAL HARMONIZATION AND EU CLP REGULATION (EC) 1272/2008 LABELING AND CLASSIFICATION:

Dimethyl Carbonate: The following is an official published classification under CLP 1272/2008.
Classification: Flammable Liquid Category 2
Hazard Statements: H225: Highly flammable liquid and vapour.
Precautionary Statements:
Response: P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. P370 + P378: In case of fire: Use materials appropriate for surrounding fire for extinction. Do not use halon extinguishers.
Disposal: P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.
Signal Word: Danger  Hazard Symbol: GHS02
All Other Components: Not applicable.

LABELING AND CLASSIFICATION FOR COMPONENTS UNDER 67/548/EEC AND 2001/59/EC:

Dimethyl Carbonate: The following is an official published classification under 67/548 EEC.
Classification: [F]: Flammable
Risk Phrases: [R 11]: Highly flammable.
Safety Phrases: [S (2-3)]: Keep out of reach of children. (This safety phrase can be omitted from the label when the substance or preparation is sold for industrial use only.) [S 9]: Keep container in a well-ventilated place. [S 16]: Keep away from sources of ignition—No smoking.
All Other Components: Not applicable.

PREPARED BY:
CHEMICAL SAFETY ASSOCIATES, Inc.
PO Box 1961, Hilo, HI 96721
(808) 441-3365 • (808) 969-4846

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LITHIUM ION BATTERY PACK MSDS
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