

Section 1: Identification

PRODUCT NAME: Lithium-Ion Battery 3.7v– Installed in Lamp
Lamps Used In: TPOPUVP, TPOPUVMR Rechargeable OPTI-PRO series Lamps
USE: Energy Source
Additional Information: 3.7V nominal, 9.6wH, 0.78g Li
COMPANY INFORMATION:
 Tracer Products, a Division of Spectronics Corporation
 256 Spagnoli Rd
 Melville, NY 11747, USA
 800-274-8888
 1-516-333-4840 (for calls originating outside continental U.S.)
sds@spectroline.com
Emergency Contact: US & Canada 1-800-424-9300 (24 HOURS) CHEMTREC
 Outside US & Canada 1-703-527-3887 (24 HOURS) CHEMTREC

Section 2: Hazardous Identification

EMERGENCY OVERVIEW: May explode or leak, and cause burn injury, if recharged, disposed of in fire, mixed with a different battery type inserted backwards or disassembled. Replace all used batteries at the same time.
 Do not remove the battery label.
Primary Routes of Exposure: Skin, Eyes, Swallowing
Medical conditions caused by exposure: Chemicals may cause burns to skin, eyes, gastrointestinal tract and mucous membranes. The materials contained in this battery may only represent a hazard if the integrity of the battery is compromised or if the battery is physically or electrically abused.

Section 3: Composition

Chemical Name	CAS Number	%W
Cobalt Oxide	1307-96-6	<30
Manganese Dioxide	1313-13-9	<30
Nickel Oxide	1313-99-1	<30
Copper	7440-50-8	2-10
Carbon	7440-44-0	<30
Lithium Hexafluorophosphate	21324-40-3	<20
Polyvinylidene Fluoride	24937-79-9	<10
Aluminum	7429-90-5	2-10
Organic Carbonates & Inert Materials	NA	<20

Section 4: First-Aid Measures

Eye & Skin Contact: If cell ruptures, flush with copious quantities of flowing, lukewarm water for a minimum of 15 minutes. Get immediate medical attention for eyes. Wash skin with soap and water.
Inhalation (breathing): Get fresh air. If symptoms persist, seek medical attention
Ingestion (swallowing): Ingestion of battery chemicals can be harmful. Call the National Battery Ingestion Hotline (202-625-3333) 24 hours a day, for procedures treating ingestion of chemicals. Do not induce vomiting.

Section 5: Fire-Fighting Measures

Flash Point: Not Available
Test Method: Not Available
Auto-ignition Temperature: Not Available.
Special Firefighting Procedures: wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products. 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 and Decomposition Products: Carbon Monoxide (CO) and other Volatile Organic Compounds.
Fire and Explosion Hazards: cells may rupture when exposed to excessive heat. This could result in the release of flammable or corrosive materials. 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 to potential sources of ignition.
Extinguishing Media: Use water, CO₂, foam, or dry powder

Section 6: Accidental Release Measures

Spill Containment and Recovery: If cells are leaking or rupture, prevent skin and eye contact and collect all released material in a plastic lined metal container.
Disposal: Dispose of according to applicable local, state and federal regulations.

Section 7: Handling and Storage

Handling Conditions: Batteries are designed to be recharged, however, improperly charging the battery may cause it to ignite. Only approved chargers should be used following approved procedures. Never disassemble a battery or bypass any safety device. Should a battery unintentionally be crushed, thus releasing its contents, rubber gloves must be used to handle all battery components. Care should be taken to avoid the inhalation of any vapors that may be emitted. Do not mix battery systems in the same equipment. Replace all batteries in equipment at the same time. Do not carry batteries loose in a pocket or bag. Do not remove battery label.
Storage Conditions: Batteries should be stored in a dry, cool (below 21°C/70°F). Batteries stored in excess of 130°C can result in the venting of flammable liquids and gases from the battery. Batteries should not be stored above 60°C or below -32°C. If packing materials are not available place masking tape on positive and negative ends of the cell to avoid short circuits.

Section 8: Exposure Controls/Personal Protection

Engineering Controls/Ventilation: Not Available.
Local Exhaust: Not Available
Eye Protection: Always wear safety glasses when working with batteries and cells.
Skin Protection: wear gloves if cell ruptures, is corroded or leaking chemicals.
Respiratory Protection: Not Available

Section 9: Physical and Chemical Properties

Appearance: Geometric, solid object; **Odor:** None; **Physical State:** Solid; **Specific Gravity (Water=1):** Not Applicable; **Solubility in Water:** Not Applicable; **pH:** Not Applicable; **Boiling Range:** Not Applicable; **Vapor Pressure:** Not Applicable; **Flash Point:** Not Applicable; **Melting Point:** Not Applicable; **Vapor Density:** Not Applicable; **Percent Volatile by Volume:** Not Applicable; **Reactivity in Water:** Not Applicable; **Evaporation rate:** Not Applicable; **Flammable Limits in Air % by Volume:** Not Applicable; **Volatile Organic Compounds (VOC) Content:** None;
Note: The physical data presented above are typical values and should not be construed as a specification.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of storage and use.
Conditions to Avoid: Storage above 60°C (140°F). Electrical shorting the cell
Incompatibility with Other Materials: Not Available
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products: Carbon Monoxide (CO) and other Volatile Organic Compounds.

Section 11: Toxicological Information

No data are available on this product

Section 12: Ecological Information

No data are available on this product

Section 13: Disposal Considerations

Disposal: Do not incinerate. To prevent short circuit, batteries should be completely discharged prior to disposal, or the terminals should be taped and/or capped. When completely discharged it is not considered hazardous. This product does not contain any materials listed by the United States EPA as requiring specific waste disposal requirements. These are exempted from the hazardous waste disposal standards under Universal Waste Regulations. Disposal of large quantities of Lithium-

Ion batteries or cells may be subject to Local, State or Federal / Provincial regulations. Consult your Local, State and Federal / Provincial regulations regarding disposal of these batteries.

General Statements: Federal regulations may apply to empty container. State and/or local regulations may be different.

Special Instructions: Be sure to contact the appropriate government environmental agencies if further guidance is required.

Section 14: Transportation

UN number: UN3481

UN proper shipping name: Lithium-Ion Battery contained in equipment

Transport hazard class(es): 9

EmS No: F-A, S-I

Packing group: I

Marine Pollutant: No

Ground (DOT): 49 CFR 173.185 (c)(1)(iii) & (c)(3)

DOMESTIC USA AIR: 49 CFR 173.185 (c)(4)

IMDG: CHAPTER 3.3, SP 188

IATA: PACKING INSTRUCTION 965, SECTION IB

Air/Sea: Product compliant with the requirements of Section 1B of Packaging Instructions 965 IATA or special provision 188 of IMDG CODE.

This product has been tested to Section 38.3 of 'UN Manual of Test and Criteria. (withstanding a 1.2m drop test)

All Spectronics lithium-ion cells and batteries do not contain more than 20Wh ELC (Equivalent Lithium Contents) for each cell inside battery and 100Wh ELC (Equivalent Lithium Contents) for each battery. It is below the limits set by the IATA Dangerous Goods Regulations.

Labeled with a lithium battery handling label

Package permissible gross weight has been observed

Section 15: Regulatory Information

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U.S. Federal Regulatory Information:

This product is not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SARA Title III Information: As an article, this battery and its contents are not subject to the requirements of the Emergency Planning and Community Right-To-Know Act

TSCA: The chemical components of this product are contained on the US TSCA Inventory

California - California Proposition 65: This product contains no chemical known to the State of California to cause cancer.

CARCINOGEN: None; **TERATOGENIC:** None; **BOTH CARCINOGEN AND TERATOGENIC:** None

Canada: Not Controlled

Section 16: Other Information

USER'S RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions (in addition to those described herein) are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER OF LIABILITY: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made here under with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the users to comply with all applicable federal, state and local laws and regulations.

End of Safety Data Sheet