SAFETY DATA SHEET (SDS)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product and Company identification

Product Category	: Manganese Dioxide Primary Lithium Battery
Nominal Voltage	: 9 volt
Part Number	: 200011
Product Use	: Energy Source
Supplier's Name	: ByoPlanet International, LLC
Supplier's Address	: 1305 Shotgun Road, Sunrise, FL 33326 USA
Telephone	: (855) 211-1518
Emergency Contact:	CHEMTEL at (813) 248-0573

SECTION 2: HAZARDS IDENTIFICATION

Physical Appearance: Black cylinder with dimensions: 1.4" (3.56cm) x 5.67" (14.4cm) overall length with an 0.219" (5.56mm) electrode tip x 0.306" (7.77mm) included length.. The battery has a label "Protected by ByoPlanet" with warning and specifications. Within the cylinder are two (2) 9 volt Lithium Batteries wired in parallel. The battery weight is 4.5 ounces (127.8 grams). Each battery contains 2.70 grams of Lithium.

Note: The battery has no risk to life and health under normal use or transportation because the ingredients of the internal batteries are hermetically sealing within a metal case.

EU Classification of Preparation: Not classified as a dangerous preparation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Exposure Limits	% of Content
Manganese Dioxide, MnO_2	1313-13-9	None Listed	35 – 40
Lithium Metal, Li	7439-93-2	None Listed	1 – 4
Propylene Carbonate, $C_4H_6O_3$	108-32-7	None Listed	8 – 10
1,3-Dioxolane, $C_3H_6O_2$	646-06-0	None Listed	5 – 9
Lithium Hexafluoroarsenate, $LiAsF_6$	29935-35-1	As: .01 mg/m^3	1 – 4

Important Note: The materials in this section may only represent a hazard if the integrity of the battery is compromised or if the battery is physically or electrically abused.

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 attention.

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 contents are swallowed, do not induce vomiting. If the victim is alert, have them rinse their mouth are the surrounding skin with water for at least 15 minutes. Seek immediate medical attention.

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 (containers may rocket or explode in heat of fire).

Hazardous Combustion Products: Thermal degradation may produce hazardous decomposition products. Damaged or opened batteries can result in rapid heating and the release of flammable vapors. Vapors are heavier than air and may travel along the ground or be moved by ventilation to an ignition source and flash back.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Notify safety personnel of large spills. 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.

SECTION 7: HANDLING AND STORAGE

Never disassemble a battery.

Do not store batteries in a manner that allows terminals to short circuit.

Batteries should be separated from other materials and stored in a non-combustible, well ventilated, sprinkler-protected structure with sufficient clearance between walls and battery stacks. Do not place batteries near heating equipment, nor expose to direct sunlight for long periods

Batteries should be stored in a cool (below 70°F (21.1°C)), dry area. Air conditioning or cooling is not required unless excessively high temperatures will be encountered. Elevated storage temperatures can result in reduced battery shelf life and service life, and should be avoided. Batteries should be kept as cool as possible in order to maximize shelf life and service life.

Batteries are not designed to be recharged. Recharging a battery may result in electrolyte leakage and / or cause the battery to flame.

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.

More than a momentary short circuit will generally reduce the battery service life.

Extended short circuiting can create high temperatures in the battery. In the event of a short circuit, to prevent burns, avoid handling the battery until it has cooled. Avoid reversing battery polarity within the battery assembly. To do so may cause cell to flame or to leak.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

No engineering controls are required for handling batteries that have not been damaged. Personal protective equipment for damaged batteries should include chemical resistant gloves and safety glasses. In the event of a fire, SCBA should be worn along with thermally protective outer garments.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Not Applicable.

SECTION 10: STABILITY AND REACTIVITY

(1) This product is stable under ordinary conditions of use and storage.

(2) It is not recommended that this product be stored above 185°F (85°C).

(3) Damaged batteries will react with water. Non-discharged batteries contain elemental Lithium. This is water reactive. This reaction gives off heat and hydrogen gas. A thermal reaction may occur.

(4) Hazardous decomposition products: Carbon Monoxide (CO), and Hydrogen Flouride (HF)

SECTION 11: TOXICOLOGICAL INFORMATION

(1) Irritancy: The electrolytes contained in this battery can irritate eyes with any contact. Prolonged contact with the skin or mucous membranes may cause irritation.

(2) Sensitization: No information is available at this time.

(3) Carcinogenicity: No information is available at this time.

(4) Reproductive toxicity: No information is available at this time.

(5) Teratogenicity: No information is available at this time.

(6) Mutagenicity: No information is available at this time.

SECTION 12: ECOLOGICAL INFORMATION

Not applicable to this material / product.

SECTION 13: DISPOSAL CONSIDERATIONS

Batteries must be completely discharged prior to disposal and/ or the terminals must be taped or capped to prevent short circuit. This product does not contain any materials listed by the United Stated EPA as requiring specific waste disposal requirements. When completely discharged it is not considered hazardous. Disposal of large quantities of lithium power cells may be subject to Federal, State, or Local regulations. Consult your local, state and provincial regulations regarding disposal of these batteries.

SECTION 14: TRANSPORTATION INFORMATION

General Information

ByoPlanet's lithium metal primary cells and batteries and lithium ion cells and batteries are classified and regulated as Class 9 dangerous goods (also known as "hazardous materials" in the United States) by the International Civil Aviation Organization (ICAO), International Air Transport Association (IATA), International Maritime Organization (IMO) and many government agencies such as the US Department of Transportation (DOT). These organizations and agencies publish regulations that contain detailed packaging, marking, labeling, documentation, and training requirements that must be followed when offering (shipping) ByoPlanet's cells and batteries for transportation. **However, small cells and batteries are not subject to certain provisions of the regulations (e.g., Class 9 labeling and UN specification packaging) if they meet specific requirements.** The regulations are based on the UN Recommendations on the Transport of Dangerous Goods Model Regulations and the UN Manual of Tests and Criteria. **These regulations also apply to shipments of cells and batteries that are packed with or contained in equipment.** Failure to comply with these regulations can result in substantial civil or criminal penalties.

Shipping packages containing non-rechargeable lithium batteries must be labeled, regardless of size or number of batteries, with the following statement:

"PRIMARY LITHIUM BATTERIES – FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT."

Cell and Battery Testing Requirements

The dangerous goods regulations require that each cell and battery design be subject to tests contained in Section 38.3 of the UN Manual of Tests and Criteria prior to being offered for transport. **ByoPlanet's cells and batteries have been tested and comply with all of the UN testing requirements.**

Additional Information is Available From

- UN Recommendations on the Transport of Dangerous Goods Model Regulations
- IATA Dangerous Goods Regulations
- International Maritime Dangerous Goods Code
- European Road Regulations (ADR)
- U.S. Hazardous Materials Regulations

SECTION 15: REGULATORY INFORMATION

- USA: This SDS meets/exceeds OSHA requirements.
- Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.
- International: This SDS conforms to European Union (EU), the International Standards Organization (ISO) and the International Labour Organization (ILO) and as documented in ANSI (American National Standards Institute) Standard Z400.1-1993.

SECTION 16: OTHER INFORMATION

The information contained herein is furnished without warranty of any kind. Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.