MSDS

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The attached MSDS sheets supersede all other MSDS sheets. Please file accordingly.

VENDOR: HC DISTRIBUTION C140-00

STOCK#	MFG#	DESCRIPTION
Q51-655	TP-LB1-CELL	2032 BUTTON CELL BATTERY

Material Safety Data Sheet

Company name: HVAC Wholesale, Ltd.
P.O. Box 173
Kingston Chambers, Road Town
Tortola, British Virgin Islands
Tel:(503) 546-3480
Fax:(503) 226-0079

Section Ⅰ— product Identification

Product Name: Lithium Primary Battery.
Nominal Voltage: 3V

Chemical system: Lithium/ Manganese Dioxide
Designed for recharge:
Yes__No√

Section Ⅱ—Hazardous Ingredients

The battery is not dangerous to human or environment. Cadmium, Lead, and mercury or other dangerous chemicals are not included in the battery.

Hazardous Components:

Description:	Approximate % of total weight
Mercury : NIL	Wt%
Cadmium : NIL	**Wt%**
Metallic Lithium : 1.2-3.3	**Wt%**

Note: NIL means not included.
N.A. means not applicable

Section III - Physical / Chemical Characteristics

Boiling Point	Specific Gravity (H_2O=1)
N.A.	N.A.
Vapor Pressure (mm Hg)	Melting Point
N.A.	N.A.

Vapor Density (AIR=1)	Evaporation Rate (Butyl Acetate
N.A.	N.A.
Solubility in Water	N.A.
Appearance and Odor	Cylindrical or Button Shape, odorless

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
N.A.	N.A.	N.A.	N.A.

Extinguishing Media
N.A.

Special Fire Fighting Procedures
N.A.

Unusual Fire and Explosion Hazards
Do not dispose of battery in fire - may cause explosion
Do not short-circuit battery – may cause burns.

Section V – Reactivity Data

Stability	Unstable		Conditions to avoid
	Stable	√	

Incompatibility(Materials to avoid)

Hazardous Decompostion or Byproducts

Hazardous	May Occur		
Polymerization			conditions to avoid
	Will not occur	√	

Section VI - Health Hazard Data

In case of electrolyte leakage, skin will be itchy when contaminated with electrolyte.

In contact with electrolyte can cause server irritation and chemical burns

Inhalation of electrolyte vapors may cause irritation of the upper respiratory tract and lungs.

Section VII – First Aid Measures

First Aid procedures

If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately

If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15) minutes, and contact a physician.

If electrolyte vapors are inhaled, provide fresh air and seek medical attention if respiratory irritation develops. Ventilate the contaminated area.

Section VIII - Fire and Explosion Hazard Data

Flash Point (Method Used)	Ignition Temp.	Flammable Limits	LEL	UEL
N.A.	N.A.	N.A.	N.A.	N.A.

Extinguishing Media
Carbon Dioxide, Dry Chemical or Foam extinguishers

Special Fire Fighting Procedures
N.A.

Unusual Fire and Explosion Hazards
Do not dispose of battery in fire - may explode.

Do not short-circuit battery - may cause burns.

Section IX – Accidental Release or Spillage

Steps to Be Taken in Case Material is Released or Spilled

Batteries that are leakage should be handled with rubber gloves.
Avoid direct contact with electrolyte.

Wear protective clothing and a positive pressure Self-Contained Breathing Apparatus (SCBA).

Section X – Handling and Storage

Safe handling and storage advice

Batteries should be handled and stored carefully to avoid short circuits.
Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries.
Never disassemble a battery.
Do not breathe cell vapors or touch internal material with bare hands.
Keep batteries between -30 C and 35 C for prolong storage.

Section XI – Exposure Controls / Person Protection

Occupational Exposure Limits:	LTEP N.A.	STEP N.A.
Respiratory Protection (Specify Type)	N.A.	
Ventilation	Local exhausts N.A.	Special N.A.
	Mechanical(General) N.A	Other N.A.
Protective glove	. N.A.	Eye protection N.A.
Other protective clothing or equipment	N.A.	
Work/Hygienic practice	N.A.	

Section XII Ecological information

N.A

Section XIII Disposal Method

Dispose of the batteries according to the government regulations.

Section XIV – Transportation Information

PAIRDEER lithium cells and batteries are not subject to the requirements of the U.S. hazardous materials regulations pursuant to 49 CFR 173.185(b), IATA Dangerous Goods Regulations pursuant to Special Provision A45, and IMDG Code pursuant to Special Provision 188. Each PAIRDEER cell or battery has been tested under provisions of the UN Manual of Tests and Criteria, Part III, Sub-section 38.3. If PAIRDEER lithium cells are used to construct battery packs, the assembler of that pack is responsible to ensure the battery has been tested in accordance with the requirements contained in the UN Manual of Tests and Criteria and shipped in accordance with applicable regulations. Batteries must be packaged and offered for transportation in a manner that prevents the dangerous evolution of heat (for example, by the effective insulation of exposed terminals) and protects against short circuits. The international Maritime Dangerous Goods Code (IMDG) regulate them for ocean transportation under Special Provision 304 which

says : Batteries, dry, containing corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to the provision of this Code provided the batteries are securely packed and protected against short-circuits
Non-dangerous goods.
Such batteries have been packed in inner packaging in such a manner as to effectively prevent short circuit and movement that could lead to short circuit.

Section XV – Regulatory Information

Special requirement be according to the local regulatory.

Section XVI – Other Information

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

Section XVII – Measures for fire extinction

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.
Fire fighters should wear self-contained breathing apparatus.