

MATERIAL SAFETY DATA SHEET

Doc. No. P09L-5002

December 25th, 2009**1. PRODUCT AND COMPANY IDENTIFICATION**

Product Name	Lithium-ion Rechargeable Battery
Company Name	GS Yuasa Technology
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Date Prepared	Dec. 23 rd , 2009
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2. COMPOSITION/INFORMATION ON INGREDIENTS

IDENNTITY	Lithium-ion Rechargeable Battery
Model Name	LVP65-8-400
Average Capacity	65Ah
Average Operating Voltage	28.8V
Chemical System	Lithium-Cobalt Dioxide / Carbon
Designed for Recharge	Yes

IMPORTANT NOTE

The battery consists of eight LVP65 Lithium ion rechargeable cells. Eight cells are connected in series. The battery should not be opened or burned since the following ingredients contained within the product that could be harmful under some circumstance if exposed or misuse. Lithium metal or alloy is not used in this battery.

Cathode	Lithium-Cobalt Dioxide (activity) Polyvinylidene Fluoride (binder) Graphite (conductivity)
Anode	Carbon (activity) Polyvinylidene Fluoride (binder)
Electrolyte	Organic Solvent (non aqueous liquid) Lithium Salt
Enclosure	Metal case
Others	Heavy metals such as Mercury, Lead, and chromium are not used in the cells.

3. HAZARDS IDENTIFICATION

Most Important Hazards in the only case of electrolyte leakage

- Electrolyte Eye and skin exposure cause irritation.
Ingestion is harmful.
Protective gloves (rubber gloves),
eye protection (goggles)

4. FIRST AID MEASURES

Under normal condition of use, these chemicals are contained in sealed can. Risk of leakage occurs only if the cells are mechanically abused.

- Inhalation
Remove to fresh air and get immediate medical attention.
- Skin contact
Wash well with soap and water
- Eye contact
Flush eye with water at least 15minutes and get medical attention

5. FIRE-FIGHTING MEASURES

- Extinguishing Media
A large amount of water
- Special Methods
Evacuate no essential personnel
Move canister from fire areas if it can be done without risk
Keep personnel removed from and upwind of fire.

6. ACCIDENTAL RELEASE MEASURES

Wear protective gloves (rubber gloves), and eye protection (goggles) and treat the battery, if they are mechanically abused and electrolyte is leaked.

7. HANDLING AND STORAGE

- Handling
Do not disassemble.
Do not short + and - terminals with a metal.
Do not open the battery.
- Storage
Suitable storage conditions
Store in cool, well-ventilated area.
Do not expose to high temperatures(50 °C ,122° F)
Since short circuit can cause burn hazard or rupture valve to open, do not store with metal plate, metal bar or metal covered materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

No parameters

Personal Protective Equipment

- Respiratory Protection
Not necessary under normal use.
- Ventilation
Not necessary under normal use.
- Eye Protection
Safety glasses
- Hand Protective Gloves
Protective gloves
- Skin and Body Protection
Avoid contact with skin

Hygiene Measures

Wash hands before breaks and at the end of works

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State

Form	Battery (8 single cells, series)
Color	Blue
Odor	No odor

10. STABILITY AND REACTIVITY

- Stability
Stable under normal conditions
- Possible Hazardous Reactions
No reactions under normal conditions
- Conditions to avoid
Avoid moisture, acid etc.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

No information available

Local Effects

In the case that a cell is mechanically abused and electrolyte is leaked.

- **Skin Contact**
Irritation
- **Eye Contact**
Irritation

12. ECOLOGICAL INFORMATION**Ecotoxicity**

No information available

13. DISPOSAL CONSIDERATIONS

Follow the all regulations in your country.

14. TRANSPORT INFORMATION

- UN Class 9
- UN No. 3480

Specific Precautionary Transport Measures and conditions

Follow the all regulations in your country.

15. REGULATORY INFORMATION

Follow the all regulations in your country.

16. OTHER INFORMATION

The information herein is given in good faith, but no warranty, express or implied, is made.
