Panasonic

Energy Company
Panasonic Corporation
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570-8511, Japan Tel +81-6-6991-1141
http://panasonic.co.jp/ec/en

# PRODUCT SAFETY DATA SHEET

## 1 Name of Product and Manufacturer

| | |
|---|---|
| Name of Product | : Alkaline button type battery |
| Model name | : See table |
| Name of Company | : Panasonic Corporation Energy Company |
| Address | : 1-1 Matsushita-cho, Moriguchi City, Osaka, 570-8511, Japan |
| Division | : Energy Device Business Unit |
| Department | : Product Engineering Group |
| Telephone number | : +81-6-6994-4537 |
| For emergency | : +81-6-6991-1141 |

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## 2 Substance Identification

| | |
|---|---|
| Substance | : Alkaline button type battery |
| CAS number | : Not specified. |
| UN Class | : Not Applicable |
| Composition | : Positive electrode ; Manganese dioxide<br>: Negative electrode ; Zinc<br>: Electrolyte ; Potassium hydroxide solution |

## 3 Hazardous and Toxicity Class

| | |
|---|---|
| Class name | : Not applicable for regulated class |
| Hazard | : The electrolyte that is contained in the battery is alkaline solution. When electrolyte touches skin, we sometimes have a chemical burm Electrolyte and lithium metal are inflammable.<br>Risk of explosion by fire if batteries are disposed in fire or heated above 100 degree C.<br>Stacking or jumbling batteries may cause external short circuits, heat generation, fire or explosion. |
| Toxicity | : The electrolyte that is contained in the battery is alkaline solution.<br>The zinc surface is processed with the mercury.. |

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## 4 First Aid Measures

The product contains alkaline solution. In case of electrolyte leakage from the battery, actions described below are required.

| | |
|---|---|
| Eye contact | : Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing. Take a medical treatment. If appropriate procedures are not taken, this may cause an eye irritation. |
| Skin contact | : Wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin. |
| Inhalation | : Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible. |

## 5 Fire Fighting Measures

| | |
|---|---|
| Extinguishing method | : Since vapor, generated from burning batteries may make eyes, nose and throat irritates, be sure to extinguish the fire on the windward side. Wear the respiratory protection equipment in some cases. |
| Fire extinguishing agent | : Dry chemical powder, carbon dioxide, a great deal of water are effective. |

## 6 Measures for electrolyte leakage from the battery

- Take up with absorbent cloth.
- Move the battery away from the fire.

## 7 Handling and Storage

- When packing the batteries, do not allow battery terminals to contact each other, or contact with other metals. Be sure to pack batteries by providing partitions in the packaging box, or in a separate plastic bag so that the single batteries are not mixed together.
- Use strong material for packaging boxes so that they will not be damaged by vibration, impact, dropping and stacking during their transportation.
- Do not recharge batteries.
- Do not deform batteries.
- Do not mix different type of batteries.
- Do not solder directly onto batteries.
- Do not let water penetrate into packaging boxes during their storage and transportation.
- Do not store the battery in places of the high temperature or under direct sunlight or in front of a stove. Please also avoid the places of high humidity. Be sure not to expose the battery to condensation, water drop or not to store it under frozen condition.
- Fire fighting apparatus should be installed.

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**8 Exposure Control** (in case of electrolyte leakage from the battery)

Acceptable concentration : Not specified in ACGIH.
Protective clothing : Safety goggle, and safety glove.

**9 Physical and Chemical Properties**

Appearance : Button shape
Voltage : 1.5 volts

**10 Stability and Reactivity**

When batteries are short-circuited
: There is the possibility that stacking or jumbling batteries cause short circuits, heat generation, fire or explosion.
When batteries are recharged
: Risk of swelling, fire or explosion. The safety mechanism may work and contains may be released.
When batteries are heated or disposed in fire
: Risk of fire or explosion.
When batteries are disassembled
: Risk of short circuits and generation.

**11 Toxicological Information**

Acute toxicity : No information as a battery
Irritation : No information as a battery
Mutagenicity : No information as a battery
Chronic toxicity : No information as a battery

**12 Ecological Information**

In case of the worn-out battery was disposed in land, the battery case may be corroded, and leak electrolyte. But, we have no ecological information.

**13 Disposal Considerations**

When the battery is worn out, dispose of it under the ordinance of each local government or the low issued by relating government.

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## 14 Transport Information

During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.

During the transportation do not allow packages to be fallen down or damaged.

For air transportation, the words “Not Restricted” and the Special Provision number “A123” must be included in the description of the substance on the Air Waybill, when an Air Waybill is issued

## 15 Regulatory Information

No information (Follow all regulations in your country)

## 16 Other Information

This PSDS is described on the basis of present materials, information and data. So, please notice that it will be revised by new information. Also this sheet is supplied to entrepreneurs as reference information in order to handle batteries safely. Please notice that entrepreneur have to deal with batteries as they think fit.

References (1) IATA Dangerous Goods Regulations 53rd Edition（2012）

Table: This PSDS is applicable to the following models.

| LR41 | LR1120 | LR1130 | LR43 | LR44 | 4LR44 |
|---|---|---|---|---|---|
| | | | | | |

(END)