MATERIAL SAFETY DATA SHEET

SECTION 2 - HAZARDS IDENTIFICATION

Primary Routes of Entry

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Respiratory</th>
<th>Skin Contact</th>
<th>Eye Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Ingestion</td>
<td>Skin Absorption</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NTP</td>
<td>OSHA</td>
<td></td>
</tr>
</tbody>
</table>

Skin Absorption: No effect under routine handling and use.

Inhalation: No effect under routine handling and use.

Ingestion: No effect under routine handling and use.

Medical Conditions Generally Aggravated By Exposure: All chemicals are contained in a sealed can. Risk of exposure occurs only, if the battery is mechanically or electrically abused (mechanical, thermal, electrical), which leads to the rupture of the battery container. Electrolyte leakage, electrode materials reaction with moisture/water or battery vent/fire may follow, depending upon the circumstances.

Inhalation: No effect under routine handling and use.

Ingestion: No effect under routine handling and use.

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Health Hazards: All chemicals are contained in a sealed can. Risk of exposure occurs only, if the battery is mechanically or electrically abused (mechanical, thermal, electrical), which leads to the rupture of the battery container. Electrolyte leakage, electrode materials reaction with moisture/water or battery vent/fire may follow, depending upon the circumstances.

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SECTION 7  HANDLING AND STORAGE

Handling:
- Take all precautions mentioned in this document and operate the battery within the temperature range of -20°C and 45°C.
- No special protective clothing required for handling individual cells in corrective operational method.
- Improper handling of lithium ion battery may result in injury or damage from electrolyte leakage, heating, ignition or explosion. Do not crush, pierce, short cell/battery terminals with conductive material; Do not directly heat or solder; do not throw into fire; do not place cell/battery in non
- stored under 45°C.

Storage:
- Store the battery in a cool, drying place, without chemical vapor or excessive humidity.

SECTION 8  EXPOSURE CONTROLS & PERSONAL PROTECTION

Engineering Controls:
- Keep away from heat and open flame, prevent hard & sharp thing penetration, store in a cool & dry place.

Personal Protection:
- Respiratory Protection: Not necessary under normal operations condition. SCBA required in the event of a fire.
- Eye/Face Protection: Not necessary under normal operation condition.
- Glove protection: Not necessary under normal operation condition.
- Foot Protection: Steel toed shoes recommended for large container handling.

SECTION 9  PHYSICAL / CHEMICAL PROPERTIES

Specific Gravity (H2O=1):
- LiCoO2: 3.80
- Graphite: 2.0~2.2

Melting Point:
- LiCoO2: 1130°C
- Graphite: 3500-3900°C

Appearance and Odor:
- LiCoO2 is a gray odorless power; Graphite is a black or odorless power;
- Organic solvent is a colorless liquid; Lithium salt is a white, crystalline and odorless power.

SECTION 10  STABILITY & REACTIVITY DATA

Stability:
- Stable
- Unstable
- Conditions to Avoid:
  - Do not heat or incinerate the battery. Never impact, pierce or crush the battery.
  - Do not disassemble or modify the battery.
  - Do not charge the battery under high temperature conditions such as near a fire or in the direct sunlight.
  - Do not short-circuit the battery by connect the positive and negative terminals with a metal material.
  - Do not allow the battery to get wet or be immersed in water.

Incompatibility (Materials to Avoid):
- Water, salted water, other solvent with water

Hazardous Decomposition Products:
- N/A

Hazardous Polymerization:
- May Occur
- Will Not Occur

SECTION 11  TOXICOLOGICAL INFORMATION

Do not charge the battery under high temperature conditions such as near a fire or in the direct sunlight.
Do not shot-circuit the battery by connect the positive and negative terminals with a metal material.
Do not disassemble or modify the battery.
Do not allow the battery to get wet or be immersed in water.

SECTION 12  ECOLOGICAL INFORMATION

This product does not elicit toxicological properties during routine handling and use.

Cobalt and its compounds can pose a threat if released to environment. The detail information are showed in waste disposal method in Section 13 “Disposal Consideration”.

SECTION 13 DISPOSAL CONSIDERATIONS
There is no contamination during normal operation and use. Lithium batteries should have their terminals insulated prior to disposal, do not throw away a used battery
and provide them for recycling company.

Open cells should be treated as hazardous waste. If the leakage or other material is released, we should take actions as follows:
- Leave the area, allow the battery to cool down, let the vapors to dissipate.
- Avoid skin and eye contact or inhalation of vapors. Remove spiller liquid with absorbent and incinerate after.

Waste Disposal method: Opened cells should be treated as hazardous waste.

Incineration: incineration should never be performed by battery users but eventually by trained professionals in authorized facilities with proper gas and fume treatment.

Landfilling: According to the proper laws and regulations in different countries or areas, the battery should be buried deeply in the specified place;

Recycling: Send to authorized recycling facilities to get Co, Cu and Al, eventually through licensed waste carrier;

SECTION 14 Transportation
Lishen’s DAP574868PA Lithium-Ion Polymer batteries are considered to be "Rechargeable Lithium-Ion Polymer Batteries" and meet the requirements of transportation
by the United States Department of Transportation (DOT), International Civil Aviation Administration (ICAO), International Air Transportation Association (IATA)
special provision UN3480 as "non-dangerous goods" or "non-hazardous materials". These lithium batteries can be transported in nonrestrictive material and as Non-
Dangerous Goods as they meet all the requirements in below:

<table>
<thead>
<tr>
<th>Lithium content requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 For the bar cells, the lithium content can not pass 20Wt/h;</td>
</tr>
<tr>
<td>10 For the batteries, the lithium content can not pass 100Wt/h;</td>
</tr>
</tbody>
</table>

Every package must be marked in the content that the packages are loaded in lithium cells or batteries, also need point out the corrective actions when the packages are damaged.

Every package must be marked in the content that the packages are loaded in lithium cells or batteries, also need point out the corrective actions when the packages are damaged.

Every package must pass 1.2mm fall test in any direction. No damage for the cells and batteries, no move and touch together, no cells or batteries escape from the package.

Every package weight can not overpass 10kg if the batteries can not be assembled in finished equipment.

SECTION 15 REGULATORY INFORMATION

There is no hazards in accordance with the UN recommendations test.(UN manual of tested and criteria 38.3)

<table>
<thead>
<tr>
<th>Pack Part Number</th>
<th>K-DP28790FA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Voltage</td>
<td>3.7V</td>
</tr>
<tr>
<td>Nominal Pack Capacity</td>
<td>2960mAh</td>
</tr>
<tr>
<td>Pack Mass</td>
<td>50g</td>
</tr>
<tr>
<td>Equivalent Lithium Content</td>
<td>0.838g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test NO</th>
<th>Test Item</th>
<th>Criteria</th>
<th>Result</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.3.4.1</td>
<td>Altitude Test</td>
<td>No mass loss, leakage, disassembly, rupture, and fire. OCV should not be less than 90% before testing</td>
<td>Passed</td>
<td></td>
</tr>
<tr>
<td>38.3.4.2</td>
<td>Thermal Test</td>
<td>No mass loss, leakage, disassembly, rupture, and fire. OCV should not be less than 90% before testing</td>
<td>Passed</td>
<td></td>
</tr>
<tr>
<td>38.3.4.3</td>
<td>Vibration</td>
<td>No mass loss, leakage, disassembly, rupture, and fire. OCV should not be less than 90% before testing</td>
<td>Passed</td>
<td></td>
</tr>
<tr>
<td>38.3.4.4</td>
<td>Shock</td>
<td>No mass loss, leakage, disassembly, rupture, and fire. OCV should not be less than 90% before testing</td>
<td>Passed</td>
<td></td>
</tr>
<tr>
<td>38.3.4.5</td>
<td>External Short Circuit</td>
<td>External temperature should not exceed 170degC. No disassembly, and fire within six hours of this test.</td>
<td>Passed</td>
<td></td>
</tr>
<tr>
<td>38.3.4.6</td>
<td>Impact</td>
<td>External temperature should not exceed 170degC. No disassembly, and fire within six hours of this test.</td>
<td>Passed</td>
<td></td>
</tr>
<tr>
<td>38.3.4.7</td>
<td>Overcharge</td>
<td>No disassembly, and fire within seven days of this test.</td>
<td>Passed</td>
<td>Only for battery</td>
</tr>
<tr>
<td>38.3.4.8</td>
<td>Forced Discharge</td>
<td>No disassembly, and fire within seven days of this test.</td>
<td>Passed</td>
<td></td>
</tr>
</tbody>
</table>