The batteries are exempt articles and are not subject to the OSHA Hazard Communication Standard Requirement. This sheet is provided as technical information only. The information and recommendations set forth are made in good faith and are believed to be accurate as of the date of preparation. However, Maxell makes no warranty expressed or implied.

### Section 1 - Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name: Coin Type Lithium Manganese Dioxide Battery (CR)</th>
<th>Sizes: All</th>
<th>Date of preparation: Jan. 1, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company: Hitachi Maxell, Ltd., Energy Division</td>
<td>Telephone Numbers: 81-(0)794-63-8054</td>
<td></td>
</tr>
<tr>
<td>Address (Number, Street, City, State, and ZIP Code): 5, Takumidai, Ono-shi, Hyogo 675-1322, Japan</td>
<td>Fax Numbers: 81-(0)794-63-8445</td>
<td></td>
</tr>
</tbody>
</table>

### Section 2 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>Content (wt%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese Dioxide (MnO₂)</td>
<td>1313-13-9</td>
<td>15 to 40</td>
</tr>
<tr>
<td>Propylene Carbonate (C₄H₆O₃)</td>
<td>108-32-7</td>
<td>2 to 6</td>
</tr>
<tr>
<td>1,2-Dimethoxyethane (C₄H₁₀O₂)</td>
<td>110-71-4</td>
<td>1 to 5</td>
</tr>
<tr>
<td>Lithium Perchlorate (LiClO₄)</td>
<td>7791-03-9</td>
<td>0.1 to 1.5</td>
</tr>
<tr>
<td>Lithium or Lithium Alloy (Li)</td>
<td>7439-93-2</td>
<td>1 to 5</td>
</tr>
<tr>
<td>Graphite (C)</td>
<td>7782-42-5</td>
<td>1 to 4</td>
</tr>
</tbody>
</table>

Lithium content for each cell:

<table>
<thead>
<tr>
<th>Model</th>
<th>Li content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR1025</td>
<td>0.009</td>
</tr>
<tr>
<td>CR1216</td>
<td>0.008</td>
</tr>
<tr>
<td>CR1220</td>
<td>0.011</td>
</tr>
<tr>
<td>CR1616</td>
<td>0.02</td>
</tr>
<tr>
<td>CR1620</td>
<td>0.025</td>
</tr>
<tr>
<td>CR1632</td>
<td>0.04</td>
</tr>
<tr>
<td>CR2012</td>
<td>0.02</td>
</tr>
</tbody>
</table>

### Section 3 - Hazards Identification

This contains lithium, organic solvent, and other combustible materials. For this reason, improper handling of the battery could lead to distortion, leakage*, overheating, explosion, or fire and cause human injury or equipment trouble. Please strictly observe safety instructions.

(*) Leakage is defined as an unintended escape of liquid from a battery.)
Section 4 - First Aid Measures
None unless internal materials exposure. If contents are leaked out, observe following instructions.

Inhalation  Fumes can cause respiratory irritation. Remove to fresh air and consult a physician.
Skin  Immediately flush skin with plenty of water. If itch or irritation by chemical burn persists, consult a physician.
Eyes  Immediately flush eye with plenty of water for at least 15 minutes. Consult a physician immediately.
Ingestion  If swallowing a battery, consult a physician immediately.
If contents come into mouth, immediately rinse by plenty of water and consult a physician.

Section 5 - Fire Fighting Measures
Extinguishing Media  Extinguisher of alkaline metal fire is effective.
Plenty of cold water is also effective to cool the surrounding area and control the spread fire. But hydrogen gas may be evolved by the reaction of water and lithium and it can form an explosive mixture. Therefore in the case that lots of lithium batteries are burning in a confined space, use a smothering agent.

Fire fighting procedure  Use self-contained breathing apparatus and full protective gear not to inhale harmful gas.

Section 6 - Accidental Release Measures
NA

Section 7 - Handling and Storage
1) Handling

2) Storage
Never let the battery contact with water. Never store the battery in hot and high humid place.

Section 8 - Exposure Controls, Personal Protection
Respiratory Protection  NA
Ventilation  Local Exhaust  NA
Mechanical  NA
Special  NA
Other  NA
Eye Protection  NA
Protective Gloves  NA
Other protective clothing  NA

Section 9 - Physical/Chemical Characteristics
NA

Section 10 - Stability and Reactivity
Stability  Stable
Incompatibility  Water
Hazardous polymerization  Will not occur.
Condition to avoid  See section 7.
Hazardous Decomposition or Byproducts  Hydrogen
Section 11 - Toxicological Information
NA

Section 12 - Ecological Information
NA

Section 13 - Disposal Condition
The battery may be regulated by national or local regulation. Please follow the instructions of proper regulation. As electric capacity is left in a discarded battery and it comes into contact with other metals, it could lead to distortion, leakage, overheating, or explosion, so make sure to cover the (+) and (-) terminals with friction tape or some other insulator before disposal.

Section 14 - Transportation Information
Shipping Name (UN Number)  
Lithium metal batteries (UN3090)  
Lithium metal batteries packed with equipment (UN3091)  
Lithium metal batteries contained in equipment (UN3091)

Hazard Classification  
Class 9 (Miscellaneous)

Organizations governing the transport of lithium batteries

<table>
<thead>
<tr>
<th>Area</th>
<th>Method</th>
<th>Organization</th>
<th>Special Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>Air</td>
<td>IATA, ICAO</td>
<td>Packing Instruction 968-970</td>
</tr>
<tr>
<td>International</td>
<td>Marine</td>
<td>IMO</td>
<td>SP188</td>
</tr>
<tr>
<td>U.S.A</td>
<td>Air, Rail, Road, Marine</td>
<td>DOT</td>
<td>49 CFR Section 173.185</td>
</tr>
</tbody>
</table>

These regulations are based on the UN Recommendations. The UN recommendation (17th revised edition) requires that cells and batteries shall be manufactured under a quality management program and this requirement is adopted by IMDG code and ICAO/IATA DGR. As Maxell factories have been certified for the ISO 9001, we meet this requirement.

Each special provision provides specifications on exceptions and packaging for lithium metal cells and batteries shipping.

1) Air transportation: In IATA regulations (55th Edition), the packing requirements for the cells and batteries transport is specified in PI 968, for the cells and batteries with equipment in PI 969, and for the cells and batteries installed in the equipment in PI 970. Because the content of lithium in all our Coin Type CR cells is less than 0.3g, they can be transported according to Section II (excepted from regulation) of PI 968, 969, and 970.

2) Marine transportation: The all cells can be transported as “Non Dangerous Goods” according to SP188 of IMO-IMDG Code (2012 Edition) because the content of lithium in all our Coin Type CR cells is less than 1.0g.

Please confirm the lithium content when transport the battery.

Section 15 - Regulatory Information
Major applicable regulations for the transportation of lithium metal cells and batteries are as follows:

- International Air Transport Association (IATA): Dangerous Goods Regulations, 55th Edition

Section 16 - Other Information
If you want further information, please contact your local sales representative.

NA=Not Applicable