1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Identification of the substance/preparation

Product name: Nickel Metal Hydride Battery

Use of the Substance/Preparation: Battery

Company/Undertaking Identification

Supplier: Shenzhen Grepow Battery Co., Ltd
Wushigang, Chuangyi Rd., Longhua Village, Bao An District, Shenzhen, P.R. China

Emergency telephone number: 086-0755-27043782

2. COMPOSITION / INFORMATION ON INGREDIENTS

The Nickel Metal Hydride battery is hermetically sealed; among its components, the following ones could potentially be hazardous upon release.

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Weight %</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel hydroxide</td>
<td>12054-48-7</td>
<td>235-008-5</td>
<td>15-30%</td>
<td>Carcinogenic Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>sensitizing R43, Xn R20/22, N R50-53</td>
</tr>
<tr>
<td>Metal Hydride Alloy</td>
<td></td>
<td></td>
<td>15-40%</td>
<td>Carcinogenic Category 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R40</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>215-181-3</td>
<td>3-15%</td>
<td>Sensitizing R42/43, XnR22, C R35,</td>
</tr>
<tr>
<td>Cobalt hydroxide</td>
<td>21041-93-0</td>
<td>244-166-4</td>
<td>2.5-7%</td>
<td>R42/43</td>
</tr>
</tbody>
</table>

For the full text of the R phrases mentioned in this Section, see Section 15.

3. HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>Classification</th>
<th>Most important hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenic Category 3 R40,</td>
<td>Limited evidence of a carcinogenic effect. Causes severe burns</td>
</tr>
<tr>
<td>sensitizing R42/43, Xn R20/22,</td>
<td>Harmful by inhalation and if swallowed. May cause sensitization by</td>
</tr>
<tr>
<td>C R35, N R50-53</td>
<td>inhalation and skin contact. Very toxic to aquatic organisms, may cause</td>
</tr>
<tr>
<td></td>
<td>long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td></td>
<td>The Nickel Metal Hydride is a sealed battery which is not hazardous when used</td>
</tr>
<tr>
<td></td>
<td>according to recommendations.</td>
</tr>
<tr>
<td></td>
<td>Under normal conditions of use, the integrity of the battery casing and security</td>
</tr>
<tr>
<td></td>
<td>vent are maintained, the ingredients are not expected to pose a significant risk to</td>
</tr>
<tr>
<td></td>
<td>man or the environment.</td>
</tr>
<tr>
<td></td>
<td>On some bad using conditions (high over-charge, inverse charge, external short</td>
</tr>
<tr>
<td></td>
<td>circuit) and in case of a bad functioning, some electrolyte leakage can occur by</td>
</tr>
<tr>
<td></td>
<td>the safety vent. In these cases, the risk is the caustic nature of electrolyte</td>
</tr>
<tr>
<td></td>
<td>(potassium hydroxide). The classification above is based on the contents being</td>
</tr>
<tr>
<td></td>
<td>considered as a preparation in accordance with Directive 1999/45/EC.</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

General advice
Show this safety data sheet to the doctor in attendance.

*The information below refers to exposure to the ingredients.*

**Inhalation**
Immediate medical attention is required. Move to fresh air. If symptoms persist, call a physician.

**Skin contact**
Immediate medical attention is required. Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.

**Eye contact**
Immediate medical attention is required. Remove contact lenses. Rinse immediately with plenty of water for at least 15 minutes.

**Ingestion**
Immediate medical attention is required. Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Dry powder, carbon dioxide (CO2), sand.

**Extinguishing media which must not be used for safety reasons**
Water, water spray.

**Specific hazards**
Risk of receptacle bursting.

**Special protective equipment for firefighters**
In the event of fire, wear self contained breathing apparatus. Wear personal protective equipment.

**Hazardous decomposition products**
Nickel and cobalt compounds.

6. ACCIDENTAL RELEASE MEASURES

*The information below refers to exposure to the ingredients.*

**Personal precautions**
Use personal protective equipment. Avoid contact with skin and eyes.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system.

**Methods for cleaning up**
Pick up and transfer to properly labelled containers. Dispose of in accordance with local regulations.
7. HANDLING AND STORAGE

Handling

Technical measures/Precautions
No special technical protective measures required.
Do not obstruct safety vent by soldering or welding tabs on the positive top.

Safe handling advice
Avoid contact with skin and eyes.
Use personal protective equipment.

Storage

Technical measures/Storage conditions
Keep in a dry, cool and well-ventilated place, preferably in the temperature range of +5 to +25°C at 65% (+-5%) relative humidity.
Keep away from heat and sources of ignition.
Ensure battery terminals are protected during storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Engineering measures
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment
Not required under normal use.

The information below refers to exposure to the ingredients.
Respiratory protection
Wear a positive-pressure supplied-air respirator with full facepiece.

Hand protection
Neoprene gloves (EN374).

Eye protection
Safety glasses with side-shields conforming to EN166.

Skin and body protection
Boots, apron, protective suit.

Hygiene measures
General industrial hygiene practice.

Environmental exposure controls

The information below refers to exposure to the ingredients
Prevent product from entering drains.
Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information
Form     battery (sealed unit)   Colour     not applicable   Odour     odourless

Important Health Safety and Environmental Information
not applicable
10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions.

Hazardous polymerisation
Hazardous polymerisation does not occur.

Conditions to avoid
Keep away from heat and sources of ignition.

Materials to avoid
Exposure to moisture.

Hazardous decomposition products
Nickel and cobalt compounds.

11. TOXICOLOGICAL INFORMATION

The information below refers to exposure to the ingredients

Local effects
Causes severe burns. Risk of serious damage to eyes. Harmful by inhalation and if swallowed.

Long term toxicity
No data available. Avoid repeated exposure.

Specific effects
May cause sensitization by inhalation and skin contact.
Limited evidence of a carcinogenic effect.

12. ECOLOGICAL INFORMATION

If used as directed, and if the integrity of the battery casing and security vent are maintained, the ingredients are not expected to pose a significant risk to the environment.

Mobility
No data available.

Persistence and degradability
No data available.

Ecotoxicity effects
The information below refers to exposure to the ingredients
Nickel hydroxide: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products
Dispose of in accordance with local regulations. It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Should not be released into the environment.

Contaminated packaging
Not applicable.

Further information
EWC waste disposal No: 200133 - batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
Never incinerate Ni-MH batteries.
Never dispose Ni-MH batteries as landfill.
Nickel-Metal Hydride batteries - which in some countries may not be subject to collection & recycling and/or disposal requirements – do however contain recyclable materials and GREPOW recommends proper recycling of these batteries whenever possible.
14. TRANSPORT INFORMATION

The GrePow rechargeable Ni-MH batteries are considered to be "dry cell" batteries and are not subject to dangerous goods regulation for the purpose of transportation by the U.S. Department of Transportation (DOT), the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) or the International Maritime Dangerous Goods regulations (IMDG). The only DOT requirement for shipping Nickel Metal Hydride batteries is Special Provision 130 which states: "Batteries, dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat (for example, by the effective insulation of exposed terminals)." IATA requires that batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short-circuiting. 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 provisions of this Code provided the batteries are securely packed and protected against short-circuits. Examples of such batteries are: alkali-managanese, zinc carbon, nickel metal hydride and nickel-cadmium batteries."

We hereby certify that the consignment is not classified as dangerous goods under the current edition of the IATA Dangerous Goods Regulations A123 under 50th Edition and all applicable camer and governmental regulatioms.

15. REGULATORY INFORMATION

Symbol

| C – Corrosive |
| N – Dangerous for the environment |

Text of R phrases mentioned in Section 2

R22 - Harmful if swallowed.
R20/22 - Harmful by inhalation and if swallowed.
R35 - Causes severe burns
R40 - Limited evidence of a carcinogenic effect.
R42/43 - May cause sensitization by inhalation and skin contact.
R43 - May cause sensitization by skin contact.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16. OTHER INFORMATION

S –phrases

S 1/2 - Keep locked up and out of the reach of children.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60 - This material and its container must be disposed of as hazardous waste.
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.