HUIXIAN SUNRISE POWER SOURCE CO., LTD
WEST SUOKELOU, HUQIAO, HUIXIAN CITY HENAN CHINA

SGS Job No. : CP17-030174 - SZ
Sample Name : NI-MH RECHARGEABLE BATTERY
Model No. : NI-MH AA600mAh, AA
Client Reference Information : See Remark
Manufacturer : HUIXIAN SUNRISE POWER SOURCE CO., LTD
Country of Origin : CHINA
End Uses : Solar lights, LED emergency lights, Cordless telephones, Walkmans, Electronic tools and so on.

Composition/Ingredient of sample (as per client submission) : See section 3 Composition/information on ingredients on the SDS report
Job Receiving Date : 06 Jun 2017
SDS Preparation Period : 06 Jun 2017 - 12 Jun 2017

Service Requested : Safety Data Sheet (SDS) for the sample with submitted composition.

Summary : As per request, the contents and formats of the SDS are prepared in accordance with US Regulations Relating to Labor 29 CFR 1910.1200 (g), and is provided per attached.

Remark:
The SDS is prepared based on the information provided by client.

* This sample is likely to be classified as article and is out of scope of a SDS as set out in 29 CFR Part 1910.1200. This SDS is generated for client’s reference only.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Zm guan
Approved Signatory
### Remark:

<table>
<thead>
<tr>
<th>Battery Type</th>
<th>Capacity (mAh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ni-MH AA100mAh</td>
<td>AA150mAh AA200mAh AA250mAh AA300mAh AA350mAh AA400mAh AA450mAh AA500mAh AA600mAh AA700mAh AA800mAh AA900mAh AA1000mAh AA1100mAh AA1200mAh AA1300mAh AA1400mAh AA1500mAh AA1600mAh AA1700mAh AA1800mAh AA1900mAh AA2000mAh AA2100mAh AA2200mAh</td>
</tr>
<tr>
<td>Ni-MH AAA100mAh</td>
<td>AAA150mAh AAA200mAh AAA250mAh AAA300mAh AAA350mAh AAA400mAh AAA450mAh AAA500mAh AAA600mAh AAA700mAh AAA800mAh AAA900mAh AAA1000mAh AAA1100mAh AAA1200mAh AAA1300mAh AAA1400mAh AAA1500mAh AAA1600mAh AAA1700mAh AAA1800mAh AAA1900mAh AAA2000mAh AAA2100mAh AAA2200mAh</td>
</tr>
<tr>
<td>Ni-MH 2/3AA100mAh</td>
<td>2/3AA150mAh 2/3AA200mAh 2/3AA250mAh 2/3AA300mAh 2/3AA350mAh 2/3AA400mAh 2/3AA450mAh 2/3AA500mAh 2/3AA550mAh 2/3AA600mAh</td>
</tr>
<tr>
<td>Ni-MH 2/3AAA100mAh</td>
<td>2/3AAA150mAh 2/3AAA200mAh 2/3AAA250mAh 2/3AAA300mAh 2/3AAA350mAh 2/3AAA400mAh 2/3AAA450mAh 2/3AAA500mAh 2/3AAA550mAh 2/3AAA600mAh</td>
</tr>
<tr>
<td>Ni-MH 4/5AA100mAh</td>
<td>4/5AA200mAh 4/5AA300mAh 4/5AA350mAh 4/5AA400mAh 4/5AA500mAh 4/5AA600mAh 4/5AA700mAh 4/5AA800mAh 4/5AA900mAh 4/5AA1000mAh 4/5AA1100mAh 4/5AA1200mAh 4/5AA1300mAh 4/5AA1400mAh 4/5AA1500mAh 4/5AA1600mAh 4/5AA1700mAh 4/5AA1800mAh 4/5AA1900mAh</td>
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<tr>
<td>Ni-MH 4/5SC600mAh</td>
<td>4/5SC700mAh 4/5SC800mAh 4/5SC900mAh 4/5SC1000mAh 4/5SC1100mAh 4/5SC1200mAh 4/5SC1300mAh 4/5SC1400mAh 4/5SC1500mAh 4/5SC1600mAh 4/5SC1700mAh 4/5SC1800mAh 4/5SC1900mAh 4/5SC2000mAh</td>
</tr>
<tr>
<td>Ni-MH C1500mAh</td>
<td>C1800mAh C2000mAh C2500mAh C3000mAh C3500mAh C4000mAh</td>
</tr>
<tr>
<td>Ni-MH D3000mAh</td>
<td>D3500mAh D4000mAh D4500mAh D5000mAh D6000mAh D7000mAh D8000mAh</td>
</tr>
</tbody>
</table>
1 Identification

· Product identifier
· Trade name: NI-MH RECHARGEABLE BATTERY
· Recommended use of the chemical and restrictions on use:
· Application of the substance / the preparation:
  Solar lights, LED emergency lights, Cordless telephones, Walkmans, Electronic tools and so on.
· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier: HUIXIAN SUNRISE POWER SOURCE CO., LTD
  · Full address: WEST SUOKELOU, HUQIAO, HUIXIAN CITY, HENAN CHINA
  · Phone number: +86-15903872362
  · Email: mingyang.xu@xuridianyuan.com
· Other U.S. contact point: Not available
· Further information obtainable from: HUIXIAN SUNRISE POWER SOURCE CO., LTD
· Emergency telephone number:
  · Poison Center
  · Tel: +1 800 222 1222
  · +86-13525005219 Mary Wang
· Reference Number: CP17-030174 - SZ, CANEC1710407901
· Remark:
  * This sample is likely to be classified as article and is out of scope of a SDS as set out in 29 CFR Part 1910.1200. This SDS is generated for client’s reference only.

2 Hazard(s) identification

· Classification of the substance or mixture
  Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200)

  GHS08 Health hazard

  Resp. Sens. 1  H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  Muta. 2  H341  Suspected of causing genetic defects.
  Carc. 1A  H350  May cause cancer.
  Repr. 1B  H360  May damage fertility or the unborn child.
  STOT RE 1  H372  Causes damage to organs through prolonged or repeated exposure.

  GHS05 Corrosion

  Skin Corr. 1A  H314  Causes severe skin burns and eye damage.
  Eye Dam. 1  H318  Causes serious eye damage.

  GHS07

  Acute Tox. 4  H302  Harmful if swallowed.
  Skin Sens. 1  H317  May cause an allergic skin reaction.

(Contd. on page 2)
Trade name: NI-MH RECHARGEABLE BATTERY

- Information concerning particular hazards for human and environment:
The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).

- Classification system:
The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.

- Label elements
- Hazard pictograms

- Signal word Danger
- Hazard-determining components of labeling:
nickel dihydroxide
potassium hydroxide
lanthanum, compound with nickel (1:5)
sodium hydroxide
- Hazard statements
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.

- Precautionary statements
P260 Do not breathe dusts or mists.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazards not otherwise classified (HNOC) No further relevant information available.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description:
Mixture of the substances listed below with nonhazardous additions.
For the wording of the listed hazard statements refer to Section 16.
4 First-aid measures

- Description of first aid measures
- General description:
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
  Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
  Immediately call a doctor.
  Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- Most important symptoms and effects, both acute and delayed
  No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

5 Fire-fighting measures

- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Special protective equipment and precautions for firefighters
  Protective equipment: No special measures required.
· Methods and material for containment and cleaning up:
  Use neutralizing agent.
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.

7 Handling and storage

· Precautions for safe handling:
  Thorough dedusting.
  Ensure good ventilation/exhaustion at the workplace.
  For the general occupational hygienic measures refer to Section 8.
· Information about protection against explosions and fires: No special measures required.

· Conditions for safe storage, including any incompatibilities

· Requirements to be met by storerooms and receptacles: No special requirements.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions: Keep receptacle tightly sealed.

8 Exposure controls/personal protection

· Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Material</th>
<th>REL (USA) Ceiling Limit Value</th>
<th>TLV (USA) Ceiling Limit Value</th>
<th>PEL (USA) Long-Term Value</th>
<th>REL (USA) Long-Term Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-58-3</td>
<td>potassium hydroxide</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
<td>1 mg/m³</td>
<td>0.015 mg/m³</td>
</tr>
<tr>
<td>12054-48-7</td>
<td>nickel dihydroxide</td>
<td>1 mg/m³</td>
<td></td>
<td>1 mg/m³ as Ni</td>
<td>0.015 mg/m³ as Ni</td>
</tr>
<tr>
<td>1345-25-1</td>
<td>iron oxide</td>
<td>1 mg/m³</td>
<td></td>
<td>1 mg/m³ as Fe</td>
<td></td>
</tr>
<tr>
<td>1310-73-2</td>
<td>sodium hydroxide</td>
<td>2 mg/m³</td>
<td></td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>7782-42-5</td>
<td>Graphite</td>
<td>15 mppcf*</td>
<td>2.5* mg/m³</td>
<td>2* mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

*impinger samples counted by light field techn.
*respirable dust
all forms except graphite fibers; resp. fraction

· Additional information: The lists that were valid during the creation were used as basis.
· Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure.
  · Appropriate engineering controls:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Store protective clothing separately.
    Avoid contact with the eyes.
    Avoid contact with the eyes and skin.
    See Section 7 for information about design of technical facilities.
  · Personal protective equipment:
    · Breathing equipment:
      In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
    · Protection of hands:
      Protective gloves
      The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
      Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
      Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    · Material of gloves
      The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
    · Penetration time of glove material:
      The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
    · Eye protection:
      Tightly sealed goggles

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
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<tr>
<td>Form: Solid</td>
</tr>
<tr>
<td>Color: Mixed</td>
</tr>
<tr>
<td>Odor: Odorless</td>
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<tr>
<td>Odor threshold: Not available</td>
</tr>
<tr>
<td>pH-value: 12</td>
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</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range: Not available</td>
</tr>
<tr>
<td>Freezing point: Not available</td>
</tr>
<tr>
<td>Boiling point/Boiling range: Not available</td>
</tr>
</tbody>
</table>
Trade name: NI-MH RECHARGEABLE BATTERY

| · Flash point:               | Not available |
| · Flammability (solid, gaseous): | Not available |
| · Auto-Ignition temperature: | Not available |
| · Decomposition temperature: | Not available |
| · Explosion limits:         |               |
|   Lower:                    | Not available |
|   Upper:                    | Not available |
| · Vapor pressure:           | Not available |
| · Density:                  | Not available |
| · Relative density          | Not available |
| · Vapor density             | Not available |
| · Evaporation rate          | Not available |
| · Solubility in / Miscibility with Water: | Not available |
| · Partition coefficient (n-octanol/water): | Not available |
| · Viscosity:                |               |
|   Dynamic:                  | Not available |
|   Kinematic:                | Not available |
| · Other information         | No further relevant information available. |

10 Stability and reactivity

· Reactivity: Data not available
· Chemical stability: Data not available
· Possibility of hazardous reactions: No dangerous reactions known.
· Conditions to avoid: No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Acute toxicity:
· LD/LC50 values that are relevant for classification: Not available
· Skin corrosion/irritation: Strong caustic effect on skin and mucous membranes.
· Serious eye damage/irritation:
  Strong caustic effect.
  Strong irritant with the danger of severe eye injury.
· Respiratory or skin sensitization:
  Sensitization possible through inhalation.
  Sensitization possible through skin contact.
· Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Toxic

(Contd. on page 7)
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Carcinogenic.

Carcinogenic categories

- IARC (International Agency for Research on Cancer)
  - 12054-48-7 nickel dihydroxide
  - 12196-72-4 lanthanum, compound with nickel (1:5)

- NTP (National Toxicology Program)
  - 12054-48-7 nickel dihydroxide
  - 12196-72-4 lanthanum, compound with nickel (1:5)

- OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG
  - IATA

- UN proper shipping name
  - DOT, IMDG
  - IATA

USA
### Transport hazard class(es)

**DOT, IMDG**

<table>
<thead>
<tr>
<th>Class</th>
<th>9 Miscellaneous dangerous substances and articles</th>
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</thead>
<tbody>
<tr>
<td>Label</td>
<td>9</td>
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</table>

<table>
<thead>
<tr>
<th>IATA</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Label</td>
<td>-</td>
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</table>

<table>
<thead>
<tr>
<th>Packing group</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, IMDG, IATA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### Environmental hazards:

- Marine pollutant: Yes

<table>
<thead>
<tr>
<th>Special precautions for user</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS Number</td>
<td>F-A,S-I</td>
</tr>
</tbody>
</table>

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

### Transport/Additional information:

- **IMDG**
  - Limited quantities (LQ) 0
  - Excepted quantities (EQ) Code: E0
    - Not permitted as Excepted Quantity

## 15 Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

- **Sara**
  - Section 355 (extremely hazardous substances):
    - None of the ingredients is listed.
  - Section 313 (Specific toxic chemical listings):
    - 12054-48-7 nickel dihydroxide
    - 12196-72-4 lanthanum, compound with nickel (1:5)
  - TSCA (Toxic Substances Control Act):
    - All ingredients are listed.

### Proposition 65

- Chemicals known to cause cancer:
  - 12054-48-7 nickel dihydroxide
  - 12196-72-4 lanthanum, compound with nickel (1:5)

- Chemicals known to cause reproductive toxicity for females:
  - None of the ingredients is listed.
Trade name: NI-MH RECHARGEABLE BATTERY

· Chemicals known to cause reproductive toxicity for males:
  None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:
  None of the ingredients is listed.

· Cancerogenity categories
  · EPA (Environmental Protection Agency)
    None of the ingredients is listed.
  · TLV (Threshold Limit Value established by ACGIH)
    12054-48-7 nickel dihydroxide A1
  · NIOSH-Ca (National Institute for Occupational Safety and Health)
    12054-48-7 nickel dihydroxide

· National regulations:
  · Additional classification according to Decree on Hazardous Materials:
    Carcinogenic hazardous material group III (dangerous).
  · Information about limitation of use:
    Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

16 Other information

· Relevant hazard statements
  H228 Flammable solid.
  H302 Harmful if swallowed.
  H314 Causes severe skin burns and eye damage.
  H315 Causes skin irritation.
  H317 May cause an allergic skin reaction.
  H332 Harmful if inhaled.
  H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  H341 Suspected of causing genetic defects.
  H350 May cause cancer.
  H360 May damage fertility or the unborn child.
  H372 Causes damage to organs through prolonged or repeated exposure.

The contents and format of this SDS are in accordance with 29 CFR 1910.1200(g)

DISCLAIMER OF LIABILITY
The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in anyway connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Remark:
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· Date of preparation / last revision 06/13/2017 / -
Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
Flam. Sol. 2: Flammable solids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1A: Carcinogenicity – Category 1A
Carc. 1B: Carcinogenicity – Category 1B
Repr. 1B: Reproductive toxicity – Category 1B
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1