

Safety Data Sheet

According to HCS-2012 APPENDIX D TO §1910.1200

Version: 1.0/EN

Product name: Nickel metal hydride (NiMH) battery

Revision date: 21/05/2013

Printing date: 21/05/2013

1. Identification

(a) Product identifier

Product name: Nickel metal hydride (NiMH) battery
Product code: B80H

(b) Other means of identification

Product description: Rechargeable Ni-MH button

(c) Recommended use of the chemical and restrictions on use

Recommended use: Battery.
Restriction on use: No information available.

(d) Details of the supplier of the product

Company name(China) SHENZHEN KUNTENG CO., LTD.
Address: NO.1 FACTORY, ORIENTAL HI-TECH PARK, QIAOXIANG RD., SHENZHEN, CHINA
E-mail: zckun006@tinko.com.cn
Telephone: +86-755-26756070
Fax: +86-755-26755329

(e) Emergency phone number

+86-755-26755329

2. Hazard(s) identification

(a) Classification of the chemical

The batteries are defined as "articles", they are exempted from the requirements of the Hazard Communication Standard. A sealed Nickel-Metal hydride cell/battery is not hazardous in normal use.

(b) Label elements

Pictogram(s): No pictogram.
Signal word: No signal word.
Hazard statements: No hazard statement.
Precautionary statements: No precautionary statement.

(c) Description of any hazards not otherwise classified

In case of mistreatment (abusive over charge, reverse charge, external short circuit...) and in case of fault some electrolyte can leak from the cell through the safety device. In these cases refer to the risk of potassium hydroxide solution (corrosive, pH > 14). The electrode materials are only hazardous, if the materials are released by mechanical damaging of the cell or if exposed to fire.

(d) Ingredient with unknown acute toxicity

No information available.

3. Composition/information on ingredients

(a) Mixtures information

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Chemical name	CAS No.	Concentration%
nickel dihydroxide	12054-48-7	35
Aluminium magnesium alloy powder	-	40
Cobalt oxide	1307-96-6	5
Piperine; 1-piperoyl piperidine	94-62-2	3
Water	7732-18-5	8
Graphite powder (C)	7782-42-5	5
Potassium hydroxide	1310-58-3	2
Carboxymethyl cellulose (CMC)	9000-11-7	2

4. First-aid measures

(a) Description of first aid measures

- Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice / attention if you feel unwell.
- Skin contact: Wash with plenty of soap and water. Get medical advice / attention if you feel unwell.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice / attention if you feel unwell.
- Ingestion: Get medical advice / attention if you feel unwell.

(b) Most important symptoms/effects, acute and delayed

No information available.

(c) Immediate medical attention and special treatment

No information available.

5. Fire-fighting measures

(a) Extinguishing media

- Suitable extinguishing media: Use foam, dry powder or dry sand, as appropriate.
- Unsuitable extinguishing media: No information available.

(b) Special hazards arising from the chemical

Under fire conditions, the electrode materials can form carcinogenic nickel and cobalt oxides.

(c) Special protective equipment and precautions for fire-fighters

Firefighters must wear fire resistant protective equipment and appropriate breathing apparatus.

6. Accidental release measures

(a) Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment adapted to the situation. In the event of battery rupture, prevent skin contact.

(b) Methods and materials for containment and cleaning up

If battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose off according to the local law and rules. Avoid leached substances to get into the earth, canalization or waters.

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7. Handling and storage

(a) Precautions for safe handling

Always follow the warning information on the batteries and in the manuals of devices. Only use the recommended battery types. Keep batteries away from children. For devices to be used by children, the battery casing should be protected against unauthorized access. Unpacked batteries shall not lie about in bulk. In case of battery change always replace all batteries by new ones of identical type and brand. Do not swallow batteries. Do not throw batteries into water. Do not throw batteries into fire. Avoid deep discharge. Do not short-circuit batteries Use recommended charging time and current.

(b) Conditions for safe storage, including any incompatibilities

Store sealed in the original container. Storage preferably at room temperature 20°C. Avoid large temperature changes. Do not store close to the heating. Avoid direct sunlight.

8. Exposure controls/personal protection

(a) Control parameters

Potassium hydroxide: 2mg/m³ (REL-C, NIOSH)

(b) Appropriate engineering controls

Under normal conditions (during charge and discharge) release of ingredients does not occur.

(c) Personal protective equipment

Respiratory protection:	No personal respiratory protective equipment normally required. In case of inadequate ventilation wear respiratory protection.
Hand protection:	Wear protective gloves.
Eye/face protection:	No personal protective equipment normally required.
Skin/body protection:	Wear protective clothing to prevent contact.

9. Physical and chemical properties

(a) Appearance	Solid
(b) Odor	Odourless
(c) Odor threshold	Not available.
(d) pH	Not available.
(e) Melting point/freezing point	Not available.
(f) Initial boiling point and boiling range	Not available.
(g) Flash point	Not applicable.
(h) Evaporation rate	Not applicable.
(i) Flammability	Non flammable.
(j) Upper/lower flammability or explosive limits	Not available.
(k) Vapor pressure	Not applicable.
(l) Vapor density	Not available.
(m) Relative density	Not available.

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(n) Solubility(ies)	Insoluble in water.
(o) Partition coefficient: n-octanol/water	Not available.
(p) Auto-ignition temperature	Not available.
(q) Decomposition temperature	Not available.
(r) Viscosity	Not available.

10. Stability and reactivity

(a) Reactivity

Stable under recommended storage and handling conditions.

(b) Chemical stability

Stable under normal conditions.

(c) Possibility of hazardous reactions

When heated above 150°C the risk of rupture occurs. Due to special safety construction, rupture implies controlled release of pressure without ignition.

(d) Conditions to avoid

Keep away from open flames, high temperature.

(e) Incompatible materials

No information available.

(f) Hazardous decomposition products

Under fire conditions, the electrode materials can form carcinogenic nickel and cobalt oxides.

11. Toxicological information

(a) Information on the likely routes of exposure

Inhalation:	No information available.
Ingestion:	No information available.
Skin contact:	No information available.
Eye contact:	No information available.

Under normal conditions (during charge and discharge) release of ingredients does not occur. If accidental release occurs see information in section 2, 3, and 4. Swallowing of a battery can be harmful. Call the local Poison Control Centre for advice and follow-up.

(b) Information on toxicological characteristics

Acute toxicity:	No data available.
Skin corrosion/irritation:	Not irritating.
Serious eye damage/irritation:	Not irritating.
Respiratory sensitization:	Not sensitization.
skin sensitization:	Not sensitization.
Carcinogenicity:	No data available.
Germ Cell Mutagenicity:	No data available.

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Reproductive Toxicity: No data available.
STOT-Single Exposure: No data available.
STOT-Repeated Exposure: No data available.
Aspiration Hazard: No data available.

12. Ecological information

(a) Ecotoxicity

No data available.

(b) Persistence and Degradability

No information available.

(c) Bioaccumulative potential

No information available.

(d) Mobility in soil

No information available.

(e) Other adverse effects

No information available.

13. Disposal considerations

(a) Safe handling and methods of disposal

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Local regulations may be more stringent than regional or national requirements.

14. Transport information

Nickel metal hydride (NiMH) battery is considered to be "dry cell" batteries and are unregulated for purposes of transportation by the U.S. Department of Transportation (DOT)

(a) UN number Not regulated.
(b) UN Proper shipping name Not regulated.
(c) Transport hazard class(es) Not regulated.
(d) Packing group (if applicable) Not regulated.
(e) Marine pollutant (Yes/No) No
(f) Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code) No information available.
(g) Special precautions No information available.

15. Regulatory information

(a) Safety, health and environmental regulations specific for the product in question

CAS No.	USA	EU	Japan	Korea	China	Canada
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	TSCA	EINECS	ENCS	ECL	IECSC	DSL
12054-48-7	Listed	Listed	Listed	Listed	Listed	Listed
1307-96-6	Listed	Listed	Listed	Listed	Listed	Listed
94-62-2	Listed	Listed	Not listed	Not listed	Listed	Listed
7732-18-5	Listed	Listed	Not listed	Listed	Listed	Listed
7782-42-5	Listed	Listed	Not listed	Listed	Listed	Listed
1310-58-3	Listed	Listed	Listed	Listed	Listed	Listed
9000-11-7	Listed		Listed	Listed	Listed	Listed

Remark: The above-mentioned search results are based on the Non-Confidential Inventory.

16. Other information, including date of preparation or last revision

(a) Preparation and revision information

Date of previous revision: Not applicable.

Date of this revision: 21/05/2013

Revision summary: The first New SDS

(b) Abbreviations and acronyms

TSCA:	Toxic Substances Control Act, The American chemical inventory.
DSL	Domestic Substances List
EINECS:	European Inventory of Existing Commercial chemical Substances
ENCS	Japanese Existing and New Chemical Substances
ECL:	Existing Chemicals List, the Korean chemical inventory.
IECSC:	Inventory of existing chemical substances in China.

(c) Disclaimer

Because all of our batteries are defined as "articles", they are exempted from the requirements of the Hazard Communication Standard. The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage.

----- End of the SDS -----