

Safety Data Sheet

According to HCS-2012 APPENDIX D TO §1910.1200

Version: 1.0/EN
Product name: Ni-MH Battery

Revision date: 21/07/2013
Printing date: 21/07/2013

1. Identification

(a) Product identifier

Product name: Ni-MH Battery
Product code: AA1200(AA300~2600, AAA300~1000, A1000~4000, SC1000~5000)

(b) Other means of identification

Product description: Voltage: 3.6V (1.2V, 2.4V, 3.6V, 4.8V i.e. Integral multiple of 1.2V)
Ampere hour: 1.2AH(0.3~5.0AH, 1AH=1000MAH)
Content of Li: None

(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 LTT ELECTRONIC CO., LTD.
Address: NO.8-1 Tong Fuyu Industrial Zone, Kukeng Community, Guanlan Street, Longhua New District, Shenzhen, China
Postcode: 518100
E-mail: sales4@fengbiaobattery.com.cn
Telephone: +86-755-33693588

(e) Emergency phone number

+86-755-33693588-868

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

The chemicals are contained in a sealed can. Risk of exposure occurs if the battery is mechanically or electrically abused. The most likely risk is acute exposure when a battery vents. Leaking material exposure to skin, eyes may cause irritation. Inhalation of fumes may cause respiratory irritation.

(d) Ingredient with unknown acute toxicity

No information available.

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3. Composition/information on ingredients

(a) Mixtures information

Chemical name	CAS No.	Concentration%
Nickel dihydroxide[Ni(OH) ₂]	12054-48-7	21.43
Cobalt oxide [CoO]	1307-96-6	1.34
Nickel[Ni]	7440-02-0	23.66
Iron[Fe]	7439-89-6	26.79
Polyvinyl chloride[PVC]	9002-86-2	0.22
Rhenium[Re]	7440-15-5	8.48
Cobalt[Co]	7440-48-4	1.65
Manganese[Mn]	7439-96-5	1.34
Aluminium[Al]	7429-90-5	0.04
Graphite[C]	7782-42-5	0.27
Potassium hydroxide[KOH]	1310-58-3	0.45
Sodium hydroxide[NaOH]	1310-73-2	3.35
Water[H ₂ O]	7732-18-5	7.41
Polyhexamethylene adipamide[Nylon 66]	32131-17-2	3.57

4. First-aid measures

(a) Description of first aid measures

- Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.
- Skin contact: Remove contaminated clothes and rinse skins plenty of water or shower for 15 minutes. Get medical aid if you feel unwell.
- Eye contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid if you feel unwell.
- Ingestion: Get medical advice 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: Carbon dioxide, dry chemical.
- Unsuitable extinguishing media: No information available.

(b) Special hazards arising from the chemical

- Cell may vent when subjected excessive heat-exposing battery contents.
- Hazardous combustion products: carbon monoxide, carbon dioxide, other metallic oxide fumes.

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

Firefighters must wear fire resistant protective equipment and self-contained breathing apparatus.

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6. Accidental release measures

(a) Personal precautions, protective equipment and emergency procedures

If the battery is accidental broken and leaks out, wear personal protective equipment adapted to the situation. Avoid skin and eye contact or inhalation of vapors.

(b) Methods and materials for containment and cleaning up

If the battery is accidental broken and leaks out, wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the batteries to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled material with absorbent.

It is recommended to discharge the battery to the end, recycle copper and other metal, handing in the abandoned batteries to related department unified, disposed of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental protection agency and/or federal EPA.

7. Handling and storage

(a) Precautions for safe handling

The batteries should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids. Avoid mechanical or electrical abuse. Do not short or install with incorrect polarity.

(b) Conditions for safe storage, including any incompatibilities

Storage preferably in cool, dry and ventilated area, which is subject to little temperature change, storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

8. Exposure controls/personal protection

(a) Control parameters

CAS#7440-02-0	NIOSH REL: Ca TWA 0.015 mg/m ³ OSHA PEL: TWA 1 mg/m ³ Note: The PEL does not apply to Nickel carbonyl.
CAS#7439-89-6	NIOSH REL: TWA 1 mg/m ³
CAS#7440-48-4	NIOSH REL: TWA 0.05 mg/m ³ OSHA PEL : TWA 0.1 mg/m ³ NIOSH REL: TWA 1 mg/m ³ ; STEL 3 mg/m ³ OSHA PEL: C 5 mg/m ³
CAS#7439-96-5	Note: Also see specific listings for Manganese cyclopentadienyl tricarbonyl, Methyl cyclopentadienyl manganese tricarbonyl, and Manganese tetroxide.]
CAS#7429-90-5	NIOSH REL: TWA 10 mg/m ³ (total); TWA 5 mg/m ³ (resp) OSHA PEL: TWA 15 mg/m ³ (total); TWA 5 mg/m ³ (resp)

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CAS#1310-58-3 NIOSH REL: C 2 mg/m³
CAS#1310-73-2 NIOSH REL: C 2 mg/m³
 OSHA PEL : TWA 2 mg/m³

(b) Appropriate engineering controls

In case of battery venting, provide as such ventilation as possible. Void confined areas with venting batteries.

(c) Personal protective equipment

Respiratory protection: Not necessary under of normal use.
 In case of battery venting, wear respiratory protection.

Hand protection: Not necessary under of normal use.
 In case of battery venting, wear protective gloves.

Eye/face protection: Not necessary under of normal use.
 In case of battery venting, wear safety glass with side shields.

Skin/body protection: Not necessary under of normal use.
 In case of battery venting, wear protective clothing .

9. Physical and chemical properties

(a) Appearance	Green cylindrical battery
(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.
(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

No information available.

(b) Chemical stability

Stable under normal conditions.

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(c) Possibility of hazardous reactions

No information available.

(d) Conditions to avoid

Heating, fire, mechanical abuse and electrical abuse.

(e) Incompatible materials

No information available.

(f) Hazardous decomposition products

When exposed to fire or extreme heat, batteries may emit toxic fumes.

11. Toxicological information

(a) Information on the likely routes of exposure

Inhalation:	Inhalation, skin contact and eye contact are possible when the battery is opened. Exposure to internal contents, the corrosive fumes will be irritation to
Ingestion:	skin, eyes and mucous membranes. Overexposure can cause symptoms of
Skin contact:	non-fibroid lung injury and membrane irritation.
Eye contact:	

(b) Information on toxicological characteristics

Acute toxicity:	No information available.
Skin corrosion/irritation:	No information available.
Serious eye damage/irritation:	No information available.
Respiratory sensitization:	No information available.
skin sensitization:	No information available.
Carcinogenicity:	No information available.
Germ Cell Mutagenicity:	No information available.
Reproductive Toxicity:	No information available.
STOT-Single Exposure:	No information available.
STOT-Repeated Exposure:	No information available.
Aspiration Hazard:	No information available.

12. Ecological information

(a) Ecotoxicity

No information available.

(b) Persistence and Degradability

No information available.

(c) Bioaccumulative potential

No information available.

(d) Mobility in soil

No information available.

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(e) Other adverse effects

No information available.

13. Disposal considerations

(a) Safe handling and methods of disposal

Dispose of the batteries in accordance with approved local, state and federal requirements.
Consult state environmental agency.

14. Transport information

Ni-MH BATTERY (AA) is exempt from dangerous goods. It is considered as non-dangerous goods by International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) DGR 54th, IATA special provisions A123, International Maritime Dangerous Goods Regulations (IMDG), or Recommendations on the Transport of Dangerous Goods Model Regulations 17th.

- (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 TSCA	Canada DSL/NDSL	China IECSC
12054-48-7	Listed	DSL	Listed
1307-96-6	Listed	DSL	Listed
7440-02-0	Listed	DSL	Listed
7439-89-6	Listed	DSL	Listed
9002-86-2	Listed	DSL	Listed
7440-15-5	Listed	DSL	Listed
7440-48-4	Listed	DSL	Listed
7439-96-5	Listed	DSL	Listed
7429-90-5	Listed	DSL	Listed
7782-42-5	Listed	DSL	Listed
1310-58-3	Listed	DSL	Listed
1310-73-2	Listed	DSL	Listed
7732-18-5	Listed	DSL	Listed
32131-17-2	Listed	DSL	Listed

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

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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: 21/07/2013

Revision summary: The first New SDS

(b) Abbreviations and acronyms

TSCA Toxic Substances Control Act, The American chemical inventory.

DSL/NDSL Domestic Substances List/Non-Domestic Substances List, The Canadian 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 -----