



Report No.: MNIKHTLT04102716

MSDS Report

2020年1月1日生效

Sample Description

& Model

NI-MH Battery NI-MH Battery AA 1.2V

Applicant

SHENZHEN GREPOW BATTERY CO.,LTD

Address

complex building (1st to 3rd floor), 2nd building (1st to 4th floor), 1st building (1st to 4th floor), Shenzhen Grepow Battery Co., Ltd., Huarong Road, Gaofeng Community, Dalang Street, Longhua District, Shenzhen City, Guangdong Province, P.R.China





No.: MNIKHTLT04102716 Code: yte9tjamut



北京实验室: (010)83055000 上海实验室: (021)64851999

长春寒验室: (0431)85150908 青岛实验室: (0532)88706866 大连实验室: (0411)87336618 深圳实验室: (0755)26050909 哈尔滨实验室: (0451)58627755 天津实验室: (022)27360730 郑州实验室: (0371)69350670 苏州实验室: (0512)62997900 新疆实验室: (0991)6684186

石家庄实验室: (0311)85376660 西安实验室: (029)89608785 呼和浩特实验室: (0471)3450025 广州实验室: (020)89224310 杭州实验室: (0571)85806807

宁波实验室: (0574)87977185

武汉实验室: (027)83997127 合肥实验室: (0551)63843474 厦门实验室: (0592)5568048 成都实验室: (028)87702708



声 明 Statement

- 1. 本证明/报告的结论仅对委托方所送样品负责。
 The conclusion of the certificate/report is responsible for the provided sample only.
- 2. 委托方必须如实提供样品,申报和声明资料,并保证与实际相符,否则由委托方承担由此导致的全部后果和责任。 The applicant shall provide accurately and truly the description and statement of the sample, shall guarantee to match the sample and real situation which they provided and declared. Otherwise the application shall bear any relevant consequences and responsibility.
- 3. 如委托方提供的样品及相关资料存在虚假、伪造等情形,所造成的全部后果和责任由委托方承担。 In case the sample and documents provided involved in the situation of fake and forgery, any consequences and responsibility caused by this shall be undertaken by applicant.
- 4. 本证明/报告全部或部分复制、私自转让、盗用、冒用、涂改或以其它任何形式篡改的均属无效,本单位将对上述行为严究其相应的法律责任。

The certificate/report can not be copied in whole or part, the copied version is invalid. The certificate is invalid in case of illegal transfer, reproduction, embezzlement, imposture, modification or any altering. PONY shall investigate the applicant's legal liability accordingly.

- 5. 本证明/报告不考虑国家及经营人差异。
 The certificate/report takes no account of the differences of countries and applicants.
- 6. 本单位有权在完成证明/报告后处理委托方所送样品。 PONY has the right to dispose the provided sample after approval of the certificate/report.

▲防伪说明:

- (1)报告编号是唯一的;
- (2)报告采用特制防伪纸张印制,纸张表面带有"PONY"防伪纹路,该防伪纹路不支持复印,即复制件不会带有"PONY"防伪纹路;
- (3)报告采用的防伪纸张内部亦加带有高科技"PONY"防伪水印,只有在验钞机等紫外线照射下方可显出无色荧光防伪字样。



扫微信二维码

www.ponytest.com

(1) Hotline 400-819-5688

北京实验室: (010)83055000 上海实验室: (021)64851999 青岛实验室: (0532)88706866 深圳实验室: (0755)26050909 天津实验室: (022)23607888 苏州实验室: (0512)62997900

长春实验室: (0431)85150908 大连实验室: (0411)87336618 哈尔滨实验室: (0451)58627755 郑州实验室: (0371)69350670 新疆实验室: (0991)6684186

石家庄实验室: (0311)85376660 西安实验室: (029)89608785 呼和浩特实验室: (0471)3450025 杭州实验室: (0571)85806807 宁波实验室: (0574)87977185 武汉实验室: (027)83997127 合肥实验室: (0551)63843474 广州实验室: (020)89224310 厦门实验室: (0592)5568048 成都实验室: (028)87702708





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 1 of 11

Material Safety Data Sheet

Reference to ST/SG/AC.10/30/Rev.8 (GHS)

Section 1 - Chemical Product and Company Identification

Chemical Product Identification Sample Description: NI-MH Battery Sample Model: NI-MH Battery AA 1.2V

Recommended Uses: N/A Restrictions on Use: N/A

Supplier Name: Hu Nan Grepow New Energy Co.,Ltd

Address: West Road East River, Nonferrous Metals Industrial Park (Export Processing

Zone), Chenzhou City, Hunan Province, PEOPLE'S REPUBLIC OF CHINA

Phone Number: 0735-2659371

FAX: 0735-2659160

E-mail: zhoujie@grepow.cn

Emergency Phone Number: 17397357553

Section 2 - Hazards Identification

Emergency overview: This product is a battery. Intended use of the product should not result in exposure to the chemical substance. In case of rupture the below hazards exist.

Classification according to GHS

Acute toxicity, oral (4)

Acute toxicity, inhalation: Dusts and mists (4)

Skin corrosion/irritation (1A, 1B, 1C)

Sensitisation, respiratory (1, 1A, 1B)

Sensitisation, skin (1, 1A, 1B)

Carcinogenicity (2)

Specific target organ toxicity, single exposure; Respiratory tract irritation (3)

Specific target organ toxicity, repeated exposure (2)

Hazardous to the aquatic environment, long-term hazard (1)

Label elements



www.ponytest.com

Pony Testing International Group Shenzhen Co., Ltd. Address: 1/F., Building A2, Jun Feng ZhongCheng ZhiZao Innovation Park, HePing Peace Community, FuHai Road, BaoAn District, Shenzhen, Guangdong, China

北京实验室: (010)83055000 上海实验室: (021)64851999 长春实验室: (0431)85150908

青岛实验室: (0532)88706866 大连实验室: (0411)87336618 天津实验室: (022)27360730 郑州实验室: (0371)69350670 苏州实验室: (0512)62997900 新疆实验室: (0991)6684186

石家庄实验室: (0311)85376660 武汉实验室: (027)83997127 西安寒验室: (029)89608785 杭州实验室: (0571)85806807

宁波实验室: (0574)87977185

合肥实验室: (0551)63843474 厦门实验室: (0592)5568048 成都实验室: (028)87702708





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 2 of 11

Hazard pictogram(s):







Signal word:

Danger

Hazard statement(s):

H302 Harmful if swallowed

H332 Harmful if inhaled

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

H351 Suspected of causing cancer

H335 May cause respiratory irritation

H373 May cause damage to organs through prolonged or repeated exposure

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s):

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dusts or mists.

P264 Wash skin and clothing thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves, protective clothing, eye protection, face protection.

Response:

P330 Rinse mouth.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P363 Wash contaminated clothing before reuse.

P321 Specific treatment(See additional emergency instructions).

P391 Collect spillage.

Storage

P405 Store locked up.



苏州实验室: (0512)62997900 新疆实验室: (0991)6684186





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 3 of 11

Disposal:

P501 Send contents to approved waste treatment plants.

Other hazards

Physical and chemical hazards: See Section 10

Human health hazards: See Section 11 Environmental hazards: See Section 12

Section 3 - Composition/Information on Ingredients

Chemical characterization: Mixture

Chemical Composition	CAS No.	EC#	Weight (%)
Nickel Hydroxide	12054-48-7	235-008-5	30.82
Cobalt hydroxide	21041-93-0	244-166-4	1.924
Nickel	7440-02-0	231-111-4	29.797
Lanthanum	7439-91-0	231-099-0	10.858
Cerium	7440-45-1	231-154-9	1.878
Iron	7439-89-6	231-096-4	14.768
Sodium hydroxide	1310-73-2	215-185-5	2.99
Copper	7440-50-8	231-159-6	4.975
Polypropylene	9003-07-0	618-352-4	1.99

Section 4 - First Aid Measures

Description of first aid measures

General information No special measures required.

After eye contact

Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.

After skin contact

Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.

After inhalation

Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek

www.ponytest.com

苏州实验室: (0512)62997900 新疆实验室: (0991)6684186

北京实验室: (010)83055000

上海实验室: (021)64851999 长春实验室: (0431)85150908 青岛实验室: (0532)88706866 大连实验室: (0411)87336618

石家庄实验室: (0311)85376660 武汉实验室: (027)83997127 西安实验室: (029)89608785 深圳实验室: (0755)26050909 哈尔滨实验室: (0451)58627755 呼和浩特实验室: (0471)3450025 广州实验室: (020)89224310 宁波实验室: (0574)87977185

合肥实验室: (0551)63843474 天津实验室: (022)27360730 郑州实验室: (0371)69350670 杭州实验室: (0571)85806807 厦门实验室: (0592)5568048 成都实验室: (028)87702708





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 4 of 11

medical attention.

After swallowing

Do not induce vomiting. Get medical attention.

Personal protective equipment for first-aid responders: No data available.

Most important symptoms/effects, acute and delayed: No data available.

Indication of immediate medical attention and special treatment needed: Treat symptomatically.

Section 5 - Fire Fighting Measures

Suitable extinguishing media:

Use extinguishing agent suitable for local conditions and the surrounding environment. Such as dry powder, CO2.

Unsuitable extinguishing media:

No data available.

Specific Hazards arising from the chemical:

Special hazards arising from the substance or mixture

Battery may burst and release hazardous decomposition products when exposed to a fire situation. Some may burn but none ignite readily. Containers may explode when heated. Some may be transported hot.

Specific protective actions for fire-fighters:

Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

Section 6 - Accidental Release Measures

Personal precautions:

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

Protective equipment:

No data available.

Emergency procedures:

Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water.

Environmental precautions:

Do not allow material to be released to the environment without proper governmental

Methods and materials for containment and cleaning up:



www.ponytest.com Pony Testing International Group Shenzhen Co., Ltd. Address: 1/F., Building AZ, Jun Feng ZhongCheng ZhiZao Innovation Park, HePing Peace Community, FuHai Road, BaoAn District, Shenzhen, Guangdong, China

北京实验室: (010)83055000 上海实验室: (021)64851999 长春实验室: (0431)85150908 青岛实验室: (0532)88706866 大连实验室: (0411)87336618 深圳实验室: (0755)26050909 哈尔滨实验室: (0451)58627755 呼和浩特实验室: (0471)3450025 广州实验室: (020)89224310 天津实验室: (022)27360730 郑州实验室: (0371)69350670

苏州实验室: (0512)62997900 新疆实验室: (0991)6684186

石家庄实验室: (0311)85376660 武汉实验室: (027)83997127 西安实验室: (029)89608785 杭州实验室: (0571)85806807 宁波实验室: (0574)87977185

合肥实验室: (0551)63843474 厦门实验室: (0592)5568048 成都实验室: (028)87702708





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 5 of 11

For all waste handing must refer to United Nations, National and Local Regulations for disposal.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Section 7 - Handling and Storage

Precautions for safe handling:

Avoid short circuiting the battery. Avoid mechanical damage of the battery. Do not open or disassemble. Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well-ventilated place. Keep away from heat, avoiding the long time of sunlight.

Section 8 - Exposure Controls/Personal Protection

Control parameters

CAS No.	ACGIH	NIOSH	OSHA
12054-48-7	N/A	N/A	N/A
21041-93-0	93-0 N/A N/A		N/A
7440-02-0	TLV-TWA 1.5mg/m ³	FLV-TWA 1.5mg/m ³ REL-TWA 0.015mg/m ³	
7439-91-0	N/A	N/A	N/A
7440-45-1	N/A	N/A	N/A
7439-89-6	N/A	N/A	N/A
1310-73-2	N/A	N/A	PEL-TWA 2mg/m ³
7440-50-8	TLV-TWA 0.2mg/m ³ TLV-TWA 1mg/m ³	REL-TWA 1mg/m ³ REL-TWA 0.1mg/m ³	PEL-TWA 0.1mg/m ³ PEL-TWA 1mg/m ³
9003-07-0	N/A	N/A	N/A

Appropriate engineering controls:

The usual precautionary measures for handling chemicals should be followed.

苏州实验室: (0512)62997900 新疆实验室: (0991)6684186





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 6 of 11

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Personal Protective Equipment:

Respiratory protection: Wear suitable protective mask. For a large large number of battery leakages, wear chemical protective clothing, including self-contained breathing apparatus.

Hand Protection: Wear appropriate protective gloves to reduce skin contact.

Eye Protection: Wear safety goggles or eye protection combined with respiratory protection.

Skin and Body Protection: Working environment required, wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Silver. Colour:

Cylindrical. **Physical State:**

Not available. Odour:

Not available. Odour threshold:

Not available. pH:

Not available. Melting point/freezing point:

Not available. Initial boiling point and boiling range:

Not available. Flash Point:

Not available. **Evaporation rate:**

Not available. Flammability (solid, gas):

Not available. Explosion Limits (vol% in air):

Not available. Vapour pressure, kPa at 20°C:

Not available. Vapor density:

Not available. Density/Relative density (water = 1):

Not available. Solubility(ies):

Not available. Partition coefficient: n-octanol/water:

Not available. Auto-ignition temperature: Not available.

Decomposition temperature: Not available. Viscosity:

Pony Testing International Group Shenzhen Co., Ltd. Address: 1/F., Building A2, Jun Feng ZhongCheng ZhiZao Innovation Park, HePing Peace Community, FuHai Road, BaoAn District, Shenzhen, Guangdong, China

苏州实验室: (0512)62997900 新疆实验室: (0991)6684186





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 7 of 11

Other information:

Voltage

1.2V

Section 10 - Stability and Reactivity

Reactivity: No data available. Chemical stability: Stable.

Possibility of hazardous reactions: No data available.

Conditions to Avoid: Flames, sparks, and other sources of ignition, incompatible materials.

Incompatible materials: Oxidizing agents, acid base.

Hazardous decomposition products: Carbon monoxide, carbon dioxide.

Section 11 - Toxicological Information

Acute Toxicity:

LC50/LD50		
LD50 Rat (oral): 1600mg/kg		
LC50 Rat (Inhalation: Dusts and mists): 1200mg/m ³		
No data available.		
LD50 Rat (oral): >9000mg/kg		
No data available.		
No data available.		
No data available.		
LD50 Rat(oral): 140~340mg/kg		
No data available.		
No data available.		

Skin irritation/corrosion:

Eve danage/irritation: No data available.

Respiratory or Skin sensitisation: No data available. Reproductive Cell Mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive Toxicity: No data available.

Specific target organ toxicity-Single exposure: No data available. Specific target organ toxicity-Repeated exposure: No data available.





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 8 of 11

Aspiration hazard: No data available.

Potential Health Effects: No data available.

Inhalation: No data available. Skin contact: No data available. Eve contact: No data available. Ingestion: No data available.

Section 12 - Ecological Information

Ecological Toxicity:

CAS# 1310-73-2

LC50: 40mg/L - Crustacea (Cenodaphnia quadrangular) - 48h

Persistence and degradability: No data available. Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other adverse effects: No data available.

Section 13 - Disposal Considerations

Disposal methods:

Recommendation:

Consult state, local or national regulations to ensure proper disposal.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Section 14 - Transport Information

UN Number	
IATA, IMDG	N/A
UN Proper shipping name	
IATA, IMDG	N/A
Transport hazard class(es)	
IATA, IMDG	Not Subjected for transport of dangerous goods
Packing group	

北京实验室: (010)83055000

合肥实验室: (0551)63843474 厦门实验室: (0592)5568048 成都实验室: (028)87702708





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 9 of 11

IATA, IMDG	N/A	
Packaging Sign		
IATA, IMDG	N/A	
Environmental hazards		
Marine pollutant:	No	
Special precautions for user	Not applicable.	

Transport information: NI-MH Battery NI-MH Battery AA 1.2V is exempt from dangerous goods. It is considered non-dangerous goods by the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) DGR 61th, IATA Special Provisions A199, International Martine Dangerous Goods Regulations (IMDG) (39-18), IMDG Special Provisions 963, or the 《Recommendations on the Transport of Dangerous Goods Model Regulations (21th).

S.P.A199 The UN number UN 3496 is only applicable in sea transport. Nickel-metal hydride batterise or nickel-metal hydride battery-powered devices, equipment or vehicles having the potential of a dangerous evolution of heat are not subject to these Regulations provided they are prepared for transport so as to prevent:

- (a) a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
- (b) unintentional activation.

The words "Not Restricted" and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6, when an Air Waybill is issued.

Separate batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport.

Note: Nickel-metal hydride button cells or nickel-metal hydride cells or batteries packed with or contained in equipment are not subject to the provisions of this Code. (By sea).

Transport Fashion: By air, by sea.

Section 15 - Regulatory Information

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

北京实验室: (010)83055000

宁波实验室: (0574)87977185





Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 10 of 11

CAS No.	TSCA	IECSC	DSL/NDSL	EINECS/ ELINCS/ NLP
12054-48-7	Listed	Listed	Listed DSL	Listed
21041-93-0	Listed	Listed	Listed DSL	Listed
7440-02-0	Listed	Listed	Listed DSL	Listed
7439-91-0	Listed	Listed	Listed DSL	Listed
7440-45-1	Listed	Listed	Listed DSL	Listed
7439-89-6	Listed	Listed	Listed DSL	Listed
1310-73-2	Listed	Listed	Listed DSL	Listed
7440-50-8	Listed	Listed	Listed DSL	Listed
9003-07-0	Listed	Listed	Listed DSL	Listed

Section 16 - Other Information

Issue Date: 2019-12-09

Issue Department: Technical department

Modification record: Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Other Information:

CAS: (Chemical Abstracts Service);

EC: (European Commission);

ACGIH: (American Conference of Governmental Industrial Hygienists);

北京实验室: (010)83055000

NIOSH: (US National Institute for Occupational Safety and Health);

OSHA: (US Occupational Safety and Health);

TLV: (Threshold Limit Value) TWA: (Time Weighted Average); STEL: (Short Term Exposure Limit); PEL: (Permissible Exposure Level); REL: (Recommended Exposure Limit);







Report No.: MNIKHTLT04102716 Date: 2019-12-09 Page 11 of 11

PC-STEL: (Permissible concentration-short time exposure limit);

PC-TWA: (Permissible concentration-time weighted average);

LC50: (Lethal concentration, 50 percent kill);

LD50: (Lethal dose, 50 percent kill);

IARC: (International Agency for Research on Cancer);

EC50: (Median effective concentration);

BCF: (Bioconcentration Factor);

BOD: (Biochemical oxygen demand);

NOEC: (No observed effect concentration);

NTP: (US National Toxicology Program);

RTECS: (Registry of Toxic Effects of Chemical Substances);

IATA: (International Air Transport Association);

IMDG: (International Maritime Dangerous Goods);

TDG: (Recommendations on the TRANSPORT OF DANGEROUS GOODS Model

Regulations);

TOC: (Total Organic Carbon);

TSCA: (Toxic Substances Control Act of USA); DSL: (the Domestic Substances List of Canada);

NDSL: (the Non-domestic Substances List of Canada)

End of report

Pony Testing International Group Shenzhen Co., Ltd. Address: 1/F., Building A2, Jun Feng ZhongCheng ZhiZao Innovation Park, HePing Peace Community, FuHai Road, BaoAn District, Shenzhen, Guangdong, China

北京实验室: (010)83055000

苏州实验室: (0512)62997900 新疆实验室: (0991)6684186

宁波实验室: (0574)87977185