

MSDS Report

Corporate

name:

Address:

**Product name
And models
:**

Nickel Metal Hydride Battery

**Manufacture
plant:**

Spectro-UV, LLC

Address:

4 Dubon Court, Farmingdale N 11735 USA

December 16, 2023 Effective date: January 01, 2024

Prepare the date:

Material Safety Data Sheet

Reference to ST/SG/AC.10/30/Rev.7(GHS)

Section 1-Chemical Product and Company Identification

Chemical product identification

Sample Description: Nickel Metal Hydride Battery

Recommended Uses: Back-up Source

Restrictions on use: N/A

Supplier name: Hunan Grepow New Energy Co., Ltd.

Address: West Road East River, Nonferrous Metals Industrial Park (Export Processing Zone),
Chen Zhou City, Hu Nan Province, P. R. China

Phone number: 0735-2659496

FAX: 0735-2659160

E-mail: binliqin@grepow.cn

Emergency phone number: 0735-2659496

Section 2- Hazards Identification

Emergency Overview: This product is an article which contains a chemical substance, Safety information is given for exposure to the article as sold, Intended use of the Product
In case of rupture: the below hazards exist.

CAS# 12054-48-7

Classification according to GHS :

Acute toxicity, oral (4)

Acute toxicity, inhalation: Dusts and mists (4)

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

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

Carcinogenicity (1A, 1B)

Label elements

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s):

H302 Harmful if swallowed

H332 Harmful if inhaled

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 May cause an allergic skin reaction

H350 May cause cancer

Precautionary statement(s):

Prevention:

P264 Wash skin and clothing thoroughly after handling.

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

P261 Avoid breathing dust, fume, gas, mist, vapours and spray.

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

P284 In case of inadequate ventilation wear respiratory protection.

P272 Contaminated work clothing should not be allowed out of the workplace.

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

P201 Obtain special instructions before use.

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

Response:

P301+P310 IF SWALLOWED: Call a POLSON CENTER, if you feel unwell.

P330 Rinse mouth.

P304+P341 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER, if you feel unwell.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Call a POISON CENTER.

P321 Specific treatment(See additional emergency instructions).

P362+P364 Take off contaminated clothing and wash it before reuse .

P308+P313 IF exposed or concemed: Get medical advice .

Storage:

P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 7440-02-0

Classification according to GHS :

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

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

Carcinogenicity (2)

Specific target organ toxicity, single exposure (1) (Kidney)

Specific target organ toxicity, repeated exposure (1) (respiratory system)

Hazardous to the aquatic environment, long-term hazard (4)

Label elements

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s):

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 May cause an allergic skin reaction

H351 Suspected of causing cancer

H370 Causes damage to organs (kidney)

H372 Causes damage to organs through prolonged or repeated exposure(respiratory System)

H413 May cause long lasting harmful effects to aquatic life

Precautionary statement(s):

Prevention:

P284 [In case of inadequate ventilation] wear respiratory protection.

P272 Contaminated work clothing should not be allowed out of the workplace.

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

P201 Obtain special instruction before use。

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

P260 Do not breathe dust。

P264 Wash skin and clothing thoroughly after handling。

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

P273 Avoid release to the environment。

Response:

P304+P340 IFINHALED: remove person to fresh air and keep comfortable for breathing。

P342+P311 If experiencing respiratory symptoms:Call a POISON CENTER or doctor。

P302+P352 IF ON SKIN: Wash with Plenty of water。

P333+P313 If skin irritation or rash occurs:Get medical advice。

P321 SPeCific treatment。

P362+P364 Take off contaminated clothing and wash it before reuse。

P308+P313 IF exposed or concerned: Get medical advice。

P308+P311 IF exposed or concerned: Call aPOISON CENTER or doctor。

P314 Get medical advice if you feel unwell。

Storage:

P405 Store locked up。

Disposal:

P501 Contents or container handling to approved waste treatment plants。

CAS# 7440-45-1

Classification according to GHS :

Flammable solids (1,2)

Substances and mixtures which, in contact with water, emit flammable gases (2, 3)

Specific target organ toxicity , single exposure (1) (blood)

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

Label elements

Hazard pictogram(s):

Signal word:

Hazard statement(s):

H228 Flammable solids

H261 In contact with water releases flammable gas

H370 Causes damage to organs (blood)

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement (s):

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources, No smoking。

P240 Ground and bond container and receiving equipment。

P241 Use explosion-proof equipment。

P280 Wear protective gloves, protective clothing, eye protection and face protection。

P223 Do not allow contact with water。

P231+P232 Handle and store contents under inert gas, Protect from moisture。

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。

P273 Avoid release to the environment。

Response:

P370+P378 In case of fire: Use the appropriate media put out the fire。

P302+P335+P334 IF ON SKIN: Brush off loose particles from skin and immerse in Cool water。

P308+P311 IF exposed or concerned: Call a POISON CENTER。

P321 Specific treatment(See additional emergency instructions)。

P391 Collect Spillage。

Storage:

P402+P404 Store in a dry place , Store in a Closed container.

P405 Store Locked up.

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 7429-90-5

Classification according to GHS:

Substances and mixtures which , in contact with water , emit flammable gases(2,3)

Specific target organ toxicity , repeated exposure (1) (respiratory system)

Label elements

Hazard pictogram (s):



Signal word: **Danger**

Hazard statement (s):

H261 In contact with water releases flammable gas

H372 Causes damage to organs through prolonged or repeated exposure (respiratory System)

Precautionary statement(s):

Prevention:

P223 Do not allow contact with water.

P231+P232 Handle and store contents under inert gas, Protect from moisture.

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

P260 Do not breathe dust.

P264 Wash skin and clothing thoroughly after handling.

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

Response:

P302+P335+P334 IF ON SKIN: Brush off loose particles from skin and immerse in Cool water.

P370+P378 In case of fire: Use the appropriate media put out the fire.

P314 Get medical advice if you feel unwell.

Storage:

P402+P404 Store in a dry place, Store in a closed container.

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 7439-96-5

Classification according to GHS :

Skin corrosion/irritation (3)

Serious eye damage/eye irritation (2B)

Reproductive toxicity (1A, 1B)

Specific target organ toxicity , repeated exposure (1) (respiratory system , nervous,
Nervous system)

Hazardous to the aquatic environment , long-term (4)

Label elements

Hazard pictogram (S):



Signal word: Danger

Hazard statement (s):

H316 Causes mild skin irritation

H320 Causes eye irritation

H360 May damage fertility or the unborn child

H372 Causes damage to organs through prolonged or repeated exposure(1)
(respiratory system , nervous system)

H413 May cause long lasting harmful effects to aquatic life

Precautionary statement (s):

Prevention:

P264 Wash skin and clothing thoroughly after handling.

- P201 Obtain special instructions before use。
- P202 Do not handle until all safety Precautions have been read and understood。
- P280 Wear protective gloves , protective clothing , eye protection, face protection。
- P260 Do not breathe dust , fume, gas, mist, vapours and spray。
- P270 Do not eat, drink or smoke when using this product。
- P273 Avoid release to the environment。

Response:

- P332+P313 If skin irritation occurs: Get medical advice。
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes,
Remove contact lenses , if present and easy to do Continue rinsing。
- P337+P313 If eye irritation persists: Get medical advice。
- P308+P313 IF exposed or concerned: Get medical advice。
- P314 Get medical advice if you feel unwell。

Storage:

- P405 Store locked up。

Disposal:

- P501 Contents handling to approved waste treatment plants。

CAS#1310-58-3

Classification according to GHS :

Acute toxicity ,oral (3)

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

Serious eye damage/eye irritation (1)

Specific target organ toxicity , single exposure (1) (respiratory system)

Aspiration hazard (1)

Label elements

Hazard pictogram (S):

Signal word: **Danger**

Hazard statement (s):

- H301 Toxic if swallowed
- H314 Causes severe skin burns and eye damage
- H318 Causes serious eye damage
- H370 Causes damage to organs (respiratory system)
- H304 May be fatal if swallowed and enters airways

Precautionary statement (S):

Prevention:

- P264 Wash skin and clothing thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P260 Do not breathe dust, fume, gas, mist, vapours, spray.
- P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:

- P321 Specific treatment (See additional emergency instructions).
- 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.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P310 Immediately call a POISON CENTER.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes, Remove contact lenses, If present and easy to do, Continue rinsing.
- P308+P311 IF exposed or concerned: Call a POISON CENTER.

Storage:

- P405 Store locked up.

Disposal:

- P501 Contents handling to approved waste treatment plants.

CAS# 1310-73-2

Classification according to GHS:

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

Serious eye damage/eye irritation (1)

Specific target organ toxicity , single exposure (1) (respiratory system)

Hazardous to the aquatic environment , acute hazard (3)

Label elements

Hazard pictogram (S):

Signal word: Danger

Hazard statement (S):

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H370 Causes damage to organs (respiratory system)

H402 Harmful to aquatic life

Precautionary statement (s):

Prevention:

P260 Do not breathe dusts or mists.

P264 Wash skin and clothing thoroughly after handling.

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

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

P273 Avoid release to the environment.

Response:

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.

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

P310 Immediately call a POISON CENTER.

P321 Specific treatment (See additional emergency instructions).

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes , Remove contact lenses , if present and easy to do ,Continue rinsing.

P308+P311 IF exposed or concerned: Call a POISON CENTER.

Storage:

P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 1310-66-3

Classification according to GHS:

Acute toxicity , oral (3)

Acute toxicity, inhalation (3)

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

Serious eye damage/eye irritation (1)

Specific target organ toxicity , repeated exposure (1) (respiratory)

Specific target organ toxicity, repeated exposure (2) (liver, hematopoietic system)

Label elements

Hazard pictogram (s):

Signal word: **Danger**

Hazard statement (S):

H301 Toxic if swallowed

H331 Toxic if inhaled

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H372 Cause damage to organs through prolonged or repeated exposure (respiratory)

H373 May cause damage to organs through prolonged or repeated exposure (liver, Hematopoietic system)

Precautionary statement (s):

Prevention:

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.

P260 Do not breathe dusts or mists.

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

Response:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER.

P321 Specific treatment (See additional emergency instructions).

P330 Rinse mouth.

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

P311 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.

P310 Immediately call a POISON CENTER.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes , Remove
Contact lenses , if present and easy to do , Continue rinsing.

P314 Get medical advice if you feel unwell.

Storage:

P403+P233 Store in a well-ventilated place , Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 7440-50-8

Classification according to GHS:

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

Specific target organ toxicity, single exposure(1) (digestive system)

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

Label elements

Hazard statement (S):



Signal word: **Danger**

Hazard statement(s):

H317 May causes an allergic skin reaction

H370 Causes damage to organs (digestive system)

H335 May cause respiratory irritation

Precautionary statement (s):

Prevention:

P260 Do not breathe dust, fume.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves, eye protection, face protection.

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.

Response:

P302+P352 IF ON SKIN: Wash with plenty water.

P333+P313 If skin irritation or rash occurs: Get medical advice

P321 Specific treatment (See additional emergency instructions).

P362+P364 Take off contaminated clothing and wash it before reuse.

P308+P311 If exposed or concemed: Call a POISON CENTER.

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

P312 Call a POISON CENTER if you feel unwell.

Storage:

P403+P233 Store in a well-ventilated place , Keep container tightly closed.

P405Store locked up.

Disposal:

P501 Contents handling 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	29.820
Cobalt hydroxide	21041-93-0	244-166-4	1.924
Nickel	7440-02-0	231-111-4	28.797
Lanthanum	7439-91-0	231-099-0	10.858
Cerium	7440-45-1	231-154-9	1.551
Aluminium	7429-90-5	231-072-3	0.659
Polyhexamethylene adipamide	32131-17-2	608-706-6	0.449
Manganese	7439-96-5	231-105-1	1.357
Iron	7439-89-6	231-096-4	14.568
Potassium hydroxide	1310-58-3	215-181-3	0.538
Sodium hydroxide	1310-73-2	215-185-5	2.160
Lithium hydroxide monohydrate	1310-66-3	603-454-3	0.190
Copper	7440-50-8	231-159-6	4.955
Polypropylene	9003-07-0	618-352-4	1.957
Polyethylene	9002-88-4	618-339-3	0.217

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 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:

No data available

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 bust 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 Permits.

Methods and materials for containment and cleaning up:

All waste must refer to the United Nations, the 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:

Consumption of food and beverage should be avoided in work areas.

Wash hands with soap and water before eating, drinking.

Ground containers when transferring liquid to prevent static accumulation and discharge.

Information about fire and explosion protection

Batteries may explode or cause burns, if disassembled , crushed or exposed to fire or High temperatures , Do not short or install with incorrect polarity.

Conditions for safe storage , including any incompatibilities:

Requirements to be met by storerooms and receptacles

Store in a cool , dry, well-ventilated place.

Information about storage in one common storage facility

Keep away from heat , avoiding the long time of sunlight.

Further information about storage conditions

Keep container tightly sealed.

Specific and use

No data available.

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	N/A	N/A	N/A
7440-02-0	TLV-TWA 1.5mg/m ³	REL-TWA 0.015mg/m ³	PEL-TWA 1mg/m ³
7439-91-0	N/A	N/A	N/A
7440-45-1	N/A	N/A	N/A
7429-90-5	TLV-TWA 1mg/m ³	REL-TWA 2mg/m ³ REL-TWA 5mg/m ³ REL-TWA 10mg/m ³	PEL-TWA 5mg/m ³ PEL-TWA 15mg/m ³
32131-17-2	N/A	N/A	N/A
7439-96-5	TLV-TWA 0.02mg/m ³ TLV-TWA 0.1mg/m ³	REL-TWA 1mg/m ³ REL-STEL 3mg/m ³	N/A
7439-89-6	N/A	N/A	N/A
1310-58-3	TLV-Peak 2mg/m ³	REL-Peak 2mg/m ³	N/A
1310-73-2	N/A	N/A	PEL-TWA 2mg/m ³
1310-66-3	N/A	N/A	N/A
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
9002-88-4	N/A	N/A	N/A

Appropriate engineering controls:

The usual precautionary measures for handling chemicals should be followed。

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 in order to reduce the respiratory

System, A large number of leakage, wear chemical protective clothing , including Self-contained breathing apparatus。

Hand Protection: Wear appropriate protective gloves to reduce shin contact 。

Eyes 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

General information

Appearance:	Silver。
Form:	Cylindrical。
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:	Not available.
Other information:	
Voltage:	1.2V-48.0V
Electric capacity	300mAh-25000mAh

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 ,

Incompatibilities materials : Oxidizing agents , acid , base.

Hazardous decomposition products: Carbon monoxide , carbon dioxide.

Section 11 - Toxicological Information

Acute Toxicity:

CAS No.	LC50/LD50
12054-48-7	LD50 Rat (oral): 1600 mg/kg LC50 Rat (Inhalation: Dusts and mists): 1200mg/m ³
21041-93-0	No data available.
7440-02-0	LD50 Rat (oral): >9000mg/kg
7439-91-0	No data available.
7440-45-1	No data available.
7429-90-5	No data available.
32131-17-2	No data available.
7439-96-5	LD50 Rat (oral): 9000mg/kg
7439-89-6	No data available.
1310-58-3	LD50 Rat (oral): 284mg/kg
1310-73-2	No data available.
1310-66-3	LD50 Rat (Oral): 210mg/kg; LC50 Rat (Inhalation: Dusts and mists): 0.96mg/L
7440-50-8	No data available.
9003-07-0	No data available.
9002-88-4	No data available.

Skin irritation/corrosion:

Eye damage/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.

Aspiration hazard: No data available.

Potential Health Effects: No data available.

Inhalation: No data available.

Skin contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Section 12 - Ecological Information

Ecological Toxicity:

Ecological Toxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility: 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

Handling

. During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to dew condensation.

.Avoid transportation with the possibility of the collapse of cargo plies and the packing Damage.

.Protect the terminals of batteries and prevent them from short circuit so as not to Cause dangerous heat generation.

Air Transport

Non-Dangerous Goods. For air transportation, the words “Not Restricted, as per Special Provision A199” must be included in the description of the substance on the Air Waybill, when an Air Waybill is issued.

Marine Transport

UN number: UN3496 See SP963

1. Nickel-metal hydride button cell or nickel-metal hydride cells or batteries packed with or contained in equipment are Non-Dangerous Goods.
2. All other nickel-metal hydride cells or batteries shall be securely packed and protected from short circuit. They are Non-Dangerous Goods provided they are loaded in a cargo Transport unit in a total quantity of less than 100kg gross mass.
3. When loaded in cargo transport unit in a total quantity of 100kg gross mass or more, They are Dangerous Goods(Class 9).

References

IATA Dangerous Goods Regulations Edition 64(IATA DGR),

IMO Internation Maritime Dangerous Goods Code 2022 Edition (IMDG Gode).

Section 15 - Regulatory Information

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

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
7429-90-5	Listed	Listed	Listed DSL	Listed
32131-17-2	Listed	Listed	Listed DSL	Listed
7439-96-5	Listed	Listed	Listed DSL	Listed
7439-89-6	Listed	Listed	Listed DSL	Listed
1310-58-3	Listed	Listed	Listed DSL	Listed
1310-73-2	Listed	Listed	Listed DSL	Listed
1310-66-3	Listed	Listed	Listed DSL	Listed
7440-50-8	Listed	Listed	Listed DSL	Listed
9003-07-0	Listed	Listed	Listed DSL	Listed
9002-88-4	Listed	Listed	Listed DSL	Listed

Section 16 - Other Information

Issue Time: 2023-12-16

Issue Department: Quality Control Department ,Ministry of Technology

Modification record:

To the best of our knowledge, the information contained herein is accurate, However Neither the above named supplier 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);
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);
PC-STEL: (Permissible concentration-time weighted average);
PC-TWA: (Permissible concentration-short time exposure limit);
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*****