深圳市电科电源股份有限公司 BST POWER(SHENZHEN) LTD

Material Safety Data Sheet

Printing date 21.10.2015 Revision: 1.1.2016

Section 1 Identification of the substance/preparation and of the

company/undertaking

Product details .

• Trade name: Ni-Cd Battery

• Registration number: Not available

• Application of the substance / the preparation: Consumable

Manufacturer/Supplier:

Company Name: BST POWER (SHENZHEN) LIMITED.

Address: No.37 Xinglong Road, Dakang Village, Henggang Town, Longgang District, Shenzhen City.

TEL: 86-755-84260300 FAX: 86-755-84260306

• Further information obtainable from: BST POWER (SHENZHEN) LIMITED.

Information in case of emergency:

XXX

TEL: 86-755-84260300

Email:sales@bstbattery.com

Section 2 Hazards identification

- Hazard description: A sealed Ni-Cd Battery is not hazardous in normal use on principle.
- Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of 1907/2006/EC, EU Commission Directive 1999/45/EC,67/548/EEC, and extended by company and literature data.

Section 3 Composition/information on ingredients

· Chemical characterization: Mixture

| Chemical Name | CAS No. | Concentration% |
|----------------|------------|----------------|
| Nickel Hydride | 12054-48-7 | 31% |
| Cadmium | 7440-43-9 | 39% |
| Electrolyte | - | 7% |
| Cobalt | 7440-48-4 | 3% |
| Lanthanum | 7439-91-0 | 4% |
| Iron | 7439-89-6 | 2% |
| Other | - | 14% |

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Section 4 First aid measures

General information:

If exposure to internal materials within battery due to damaged outer casing, the following actions are recommended.

· 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: Rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

Section 5 Fire-fighting measures

· Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

• Protective equipment: Wear fully protective suit.

Section 6 Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection:

Do not allow product to reach sewage system or any water sourse.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

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. Pick up and transfer to properly labeled containers.

• Additional information: See Section 7 for information on safe handling.

Section 7 Handling and storage

- Handling
- Information for safe handling: No special measures required.
- Information about fire and explosion protection:

Keep respiratory protective device available.

Protect against electrostatic charges.

Prevent impact and friction. Protect from heat

- Storage
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Store away from flammable substances.
- · Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Section 8 Exposure controls/personal protection

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Control parameters

| Ingredients with limit values that require monitoring at the workplace: | | |
|---|-----------|--|
| Cadmium | | |
| REACH | 100 mg/kg | |

Personal protective equipment

· General protective and hygienic measures:

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 and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposureuse self-contained respiratory protective device.

· 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

Section 9 Physical and chemical properties

| General Information | |
|-------------------------------|---|
| Form: | solid |
| Colour: | according to product specification |
| Odour: | Odourless |
| Change in condition | |
| Melting point/Melting range: | Not available |
| Boiling point/Boiling range: | Not available |
| Flash point: | Not available |
| Flammability (solid,gaseous): | Not available |
| Ignition temperature: | Not available |
| Self-igniting: | Product is not selfigniting. |
| Danger of explosion: | Extreme risk of explosion by fire or other sources of |
| | ignition. |

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| Explosion limits: | | |
|---|----------------|--|
| Lower: | Not available | |
| Upper: | Not available | |
| Oxidizing properties | Not available | |
| Vapour pressure: | Not available | |
| • Density: | Not available | |
| Relative density | Not available | |
| Vapour density | Not available | |
| Evaporation rate | Not available | |
| Solubility in / Miscibility with water: | Not available | |
| • pH-value: | Not available | |
| Segregation coefficient | Neterralishia | |
| (n-octanol/water): | Not available | |
| Viscosity: | | |
| Dynamic: | Not available. | |

Section 10Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous decomposition products: No dangerous decomposition products known

Section 11Toxicological information

Acute toxicity

| LD/LC50 values relevant for classification: | | |
|---|----------|----------------|
| 7440 | -43-9 Ca | ndmium |
| oral | LD50 | 50 mg/kg (rat) |

- Primary irritant effect
- on the skin:No irritant effect.
- on the eye:No irritating effect.
- Sensitization: No sensitizing effects known.
- Toxicokinetics, metabolism and distribution: Not available
- Acute effects (acute toxicity, irritation and corrosivity):Not available
- Repeated dose toxicity: Not available
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction): Not available

Section 12 Ecological information

- Information about elimination (persistence and degradability): Not available
- · Behaviour in environmental systems
- Mobility and bioaccumulation potential: Not available
- Ecotoxical effects
- Aquatic toxicity: Not available
- Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

No ecological impacts expected under normal use conditions.

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The materials contained in this product may only represent below ecological impact if the integrity of the battery is compromised; physically or electrically abused.

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

• PBT assessments: Not available

Section 13Disposal considerations

- Product
- Recommendation:

Must not be disposed together with household garbage. Do not allow product to reach sewage system

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

Section 14Transport information

- Land transport ADR/RID (cross-border)
- · ADR/RID class:
- Danger code (Kemler):-
- UN-Number:
- · Packaging group:
- · Hazard label:
- Description of goods:
- Limited quantities (LQ):
- Transport category:
- Tunnel restriction code:
- Maritime transport IMDG
- IMDG Class:9
- UN Number: UN3496
- · Label:
- Packaging group:SP117,SP963
- EMS Number: F-A, S-I
- Marine pollutant:no
- Segregation groups: keep away from heat
- · Proper shipping name:
- Air transport ICAO-TI and IATA-DGR
- ICAO/IATA Class:-
- UN/ID Number:-
- Label:-
- Packaging group:-

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· Proper shipping name:-

Transport/Additional information:

According to the IATA dangerous goods regulations(IATA DGR)(57th), the product complies with IATA DGR Special Provisions SPA123 requirement ,and the product are not regulated for air transportion as "dangerous goods",. Such batteries must be packed in inner packagings in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits.

According to the IMO International Maritime Dangerous Goods Code(2010Edition), If the product pack complies with SP117 and SP963, the product are not regulated for Maritime transportion as "dangerous goods".

Section 15Regulatory information

· Special requirement be according to the local regulatory

Section 16Other information

Preparation and revision information

Date of previous revision: Not applicable. Date of this revision: 2015-10-21

Revision summary: The first New SDS.

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| *** |
| The contents and format of this MSDS/SDS are in according with REGULATION(EC) No. 1907/2006, |
| EU Commission Directive 1999/45/EC, 67/548/EEC. |
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• The data in this Safety Data Sheet relates only to the specific material designated herein.

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