Ni-MH Battery Pack

SAFETY DATA SHEET

SDS0090UK

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name: Ni-MH Battery Pack.
Trade Name: SCORP50-XXX, SOLO760-XXX, SOLO770-XXX, TRUTEST (XXX denotes customer variant).

CAS No.: Article.
EINECS No.: Article.
REACH Registration No.: None assigned.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s): Battery product.
Uses Advised Against: None known.

1.3 Details of the supplier of the safety data sheet

Company Identification: Detectortesters (No Climb Products Ltd), Edison House, 163 Dixon's Hill Road, Welham Green, Hertfordshire, AL9 7JE, United Kingdom.
Telephone: +44 (0) 1707 282760
Fax: +44 (0) 1707 282777
E-mail: SDS@detectortesters.com

1.4 Emergency telephone number

Emergency Phone No.: +44 (0) 1707 282760

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture


2.2 Label elements

Hazard Pictogram(s): According to Regulation (EC) No. 1272/2008 (CLP)
Signal Word(s): None.
Hazard Statement(s): None.
Precautionary Statement(s): None.

2.3 Other hazards

None.

2.4 Additional Information

Under normal conditions of battery use, internal components will not present a health or environmental hazard. In the extreme or adverse conditions (high over-charge, reverse charge, external short circuit), some electrolyte leakage can occur by the safety vent.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures
EC Classification No. 1272/2008
3.1.1 SOLO760, SOLO770, SCORP50

<table>
<thead>
<tr>
<th>Hazardous Ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>REACH Registration No.</th>
<th>Hazard symbol(s) and hazard statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel dihydroxide</td>
<td>&lt;30</td>
<td>12054-48-7</td>
<td>235-008-5</td>
<td>01-2119472435-36-0000</td>
<td>GHS07, Acute Tox. 4; H302, Acute Tox. 4; H332, Skin Sens. 1; H317, Skin Irrit. 2; H315, GHS08, Muta. 2; H341, Resp. Sens. 1; H334, Carc. 1A; H350i, Repr. 1B; H360D, STOT RE 1; H372, GHS09, Aquatic Acute 1; H400, Aquatic Chronic 1; H410</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>&lt;20</td>
<td>1310-58-3</td>
<td>215-181-3</td>
<td>01-2119487136-33-0000</td>
<td>GHS05, Skin Corr. 1A; H314, GHS07, Acute Tox. 4; H302</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>&lt;20</td>
<td>1310-73-2</td>
<td>215-185-5</td>
<td>01-2119457892-27-0000</td>
<td>GHS05, Skin Corr. 1A; H314</td>
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</tbody>
</table>
3.1.2 TRUTEST

<table>
<thead>
<tr>
<th>Hazardous Ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>REACH Registration No.</th>
<th>Hazard symbol(s) and hazard statement(s)</th>
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</thead>
<tbody>
<tr>
<td>Metal hydride alloy</td>
<td>15 - 40</td>
<td>None</td>
<td>None</td>
<td>None assigned</td>
<td>GHS08, Carc. 2; H351, Resp. Sens. 1; H334, GHS07, Skin Sens. 1; H317</td>
</tr>
<tr>
<td>Nickel dihydroxide</td>
<td>15 - 30</td>
<td>12054-48-7</td>
<td>235-008-5</td>
<td>01-2119472435-36-0000</td>
<td>GHS07, Acute Tox. 4; H302, Acute Tox. 4; H332, Skin Sens. 1; H317, Skin Irrit. 2; H315, GHS08, Muta. 2; H341, Resp. Sens. 1; H334, Carc. 1A; H350i, Repr. 1B; H360D, STOT RE 1; H372, GHS09, Aquatic Acute 1; H400, Aquatic Chronic 1; H410</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>3 - 15</td>
<td>1310-58-3</td>
<td>215-181-3</td>
<td>01-2119487136-33-0000</td>
<td>GHS05, Skin Corr. 1A; H314, GHS07, Acute Tox. 4; H302</td>
</tr>
<tr>
<td>Cobalt dihydroxide</td>
<td>2.5 - 7</td>
<td>21041-93-0</td>
<td>244-166-4</td>
<td>01-2119517583-39-0000</td>
<td>GHS07, Acute Tox. 4; H302; Acute Tox. 4; H332, Skin Sens. 1; H317, Eye Irrit. 2; H319, GHS08, Resp. Sens. 1, H334, GHS0, Aquatic Acute 1; H400, Aquatic Chronic 1; H410</td>
</tr>
</tbody>
</table>

3.2 Additional Information
For full text of H/P statements see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures
   - **Inhalation**: Unlikely route of exposure. Electrolyte leakage: Remove person to fresh air and keep comfortable for breathing.
   - **Skin Contact**: No measures required. Electrolyte leakage: Take off immediately all contaminated clothing. Rinse skin with water/shower.
   - **Eye Contact**: Unlikely route of exposure. Electrolyte leakage: Rinse cautiously with water for several minutes.
   - **Ingestion**: Unlikely route of exposure. Electrolyte leakage: Make victim drink water. Do not induce vomiting. Call a POISON CENTER/doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed
   None anticipated.

4.3 Indication of any immediate medical attention and special treatment needed
   Electrolyte leakage: Causes severe skin burns and eye damage.

SECTION 5: FIREFIGHTING MEASURES

Non-flammable.

5.1 Extinguishing media
   - Suitable Extinguishing media: Extinguish preferably with dry chemical, sand or carbon dioxide.
   - Unsuitable extinguishing media: Water, Water spray.

5.2 Special hazards arising from the substance or mixture
   Heating may cause pressure rise with risk of bursting. Hazardous decomposition product(s): Nickel and cobalt compounds.

5.3 Advice for fire-fighters
   Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
   Ensure adequate ventilation. Stop leak if safe to do so. Avoid inhalation of vapours. Avoid contact with skin and eyes. Use personal protective equipment as required.

6.2 Environmental precautions
   Avoid release to the environment.

6.3 Methods and material for containment and cleaning up
   Collect mechanically and dispose of according to Section 13. Electrolyte leakage: Neutralize with: weak acid such as vinegar or citric acid before proper disposal. In the event of accumulated electrolyte contain and neutralize spill. See Also Section 8.
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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not obstruct safety vent by soldering or welding tabs on the positive top.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources.
- Storage temperature: Ambient.
- Storage life: Stable under normal conditions.
- Incompatible materials: None known.

7.3 Specific end use(s)
Battery product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
8.1.1 Occupational Exposure Limits

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CAS No.</th>
<th>LTEL (8 hr TWA ppm)</th>
<th>LTEL (8 hr TWA mg/m³)</th>
<th>STEL (ppm)</th>
<th>STEL (mg/m³)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel dihydroxide</td>
<td>12054-48-7</td>
<td>-</td>
<td>0.1</td>
<td>-</td>
<td>-</td>
<td>WEL, Sk</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>WEL</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>WEL</td>
</tr>
<tr>
<td>Cobalt dihydroxide</td>
<td>21041-93-0</td>
<td>-</td>
<td>0.1</td>
<td>-</td>
<td>-</td>
<td>WEL</td>
</tr>
</tbody>
</table>

WEL: Workplace Exposure Limit (UK HSE EH40)
Sk - Can be absorbed through skin.

8.1.2 Biological limit value
Not established.

8.1.3 PNECs and DNELs
Not established.

8.2 Exposure controls
8.2.1 Appropriate engineering controls
Provide adequate ventilation.

8.2.2 Personal protection equipment
Eye/ face protection
Not normally required.
Electrolyte leakage: Wear eye protection with side protection (EN166).

Skin protection (Hand protection/ Other)
Not normally required.
Electrolyte leakage: Wear impervious gloves (EN374).

Respiratory protection
No personal respiratory protective equipment normally required.
Electrolyte leakage: Wear suitable respiratory protective equipment.

8.2.3 Environmental Exposure Controls
Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
- Appearance: Solid.
- Colour: Not applicable.
- Odour: Odourless.
- Odour threshold: Not applicable.
- pH: Not available.
- Melting point/freezing point: 199.85°C (Nickel dihydroxide).
- Initial boiling point and boiling range: Not available.
- Flash Point: Not applicable.
- Evaporation rate: Not applicable.
- Flammability (solid, gas): Non-flammable.
- Upper/lower flammability or explosive limits: Not applicable.
- Vapour pressure: Not applicable.
- Vapour density: Not applicable.
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Relative density 3.8g/cm³ @ 21°C (Nickel dihydroxide).
Solubility(ies) Slightly soluble in: Water (Nickel dihydroxide).
Partition coefficient: n-octanol/water Not applicable.
Auto-ignition temperature Not applicable.
Decomposition Temperature Not applicable.
Dynamic viscosity Not applicable.
Kinematic Viscosity Not applicable.
Explosive properties Not explosive.
Oxidising properties Not oxidising.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity Stable under normal conditions.
10.2 Chemical stability Stable under normal conditions.
10.3 Possibility of hazardous reactions No hazardous reactions known if used for its intended purpose.
10.4 Conditions to avoid Keep away from heat and sources of ignition. Protect from moisture.
10.5 Incompatible materials None known.
10.6 Hazardous decomposition product(s) No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

This material is unlikely to present a significant health hazard under normal conditions of handling and use.

11.1 Information on toxicological effects
11.1.1 Article
Acute toxicity Low acute toxicity.
Irritation Non-irritant.
Corrosivity Not classified.
Sensitisation It is not a skin sensitiser.
Repeated dose toxicity None anticipated.
Carcinogenicity No evidence of carcinogenicity.
Mutagenicity There is no evidence of mutagenic potential.
Toxicity for reproduction None anticipated.
11.2 Other information Contains: Nickel dihydroxide. Harmful if swallowed or if inhaled. Causes severe skin burns and eye damage.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity Under normal conditions of battery use, internal components will not present a health or environmental hazard.
Contains: Nickel dihydroxide. Very toxic to aquatic life with long lasting effects.
12.2 Persistence and degradability Not applicable.
12.3 Bioaccumulative potential Not applicable.
12.4 Mobility in soil Not applicable.
12.5 Results of PBT and vPvB assessment Not classified as PBT or vPvB.
12.6 Other adverse effects None.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Recover or recycle if possible. To be disposed of as hazardous waste. Disposal should be in accordance with local, state or national legislation.
13.2 Additional Information Waste code (batteries and accumulators): 16 06 01, 16 06 02, 16 06 03

SECTION 14: TRANSPORT INFORMATION

14.1 UN number UN 3496
14.2 UN proper shipping name Batteries, Nickel-metal hydride.
14.3 Transport hazard class(es) ADR Not applicable under Special Provision: 295-304, 598
IMDG Not applicable under Special Provision: SP117 & SP963
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IATA
Not applicable under Special Provision: A199

DOT
Not applicable under Special Provision: 130, 49CFR 172.102

14.4 Packing group
Not applicable.

14.5 Environmental hazards
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

14.8 Additional Information
None.

SECTION 15: REGULATORY INFORMATION

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

15.1.1 EU regulations
Authorisations and/or Restrictions On Use
Candidate List of Substances of Very High Concern for Authorisation
All chemicals are not listed.

REACH: ANNEX XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
All chemicals are not listed.

REACH: ANNEX XIV List of substances subject to authorisation
All chemicals are not listed.

Community Rolling Action Plan (CoRAP)
All chemicals are not listed.

15.1.2 National regulations
None known.

15.2 Chemical Safety Assessment
Not applicable.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

LEGEND

LTEL Long Term Exposure Limit
STEL Short Term Exposure Limit
DNEL Derived No Effect Level
PNEC Predicted No Effect Concentration
PBT Persistent, Bioaccumulative and Toxic
vPvB very Persistent and very Bioaccumulative
Acute Tox. 4 Acute toxicity Category 4
Skin Sens. 1 Respiratory/skin sensitization Category 1
Skin Corr. 1A Skin corrosion/irritation Category 1A
Skin Irrit. 2 Skin corrosion/irritation Category 2
Eye Irrit. 2 Serious eye damage/irritation Category 2
Muta. 2 Mutagenicity Category 2
Resp. Sens. 1 Respiratory/skin sensitization Category 1
Carc. 1A Carcinogenicity Category 1A
Carcinogen Carcinogenicity Category 2
Repr. 1B Reproductive toxicity Category 1B
STOT RE 1 Specific target organ toxicity — repeated exposure Category 1
Aquatic Acute 1 Hazardous to the aquatic environment Acute Category 1
Aquatic Chronic 1 Hazardous to the aquatic environment Chronic Category 1

Hazard Statement(s)

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341 Suspected of causing genetic defects.
H350i May cause cancer by inhalation.
H351 Suspected of causing cancer.
H360D May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
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