

# Ni-MH Battery Pack

## SAFETY DATA SHEET

SDS0090UK

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 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.  
(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 Only representative

Company Identification Shift-Consult Hubert Scherzinger, 79108 Freiburg, Germany  
Telephone +49 7665 81 21 74

#### Details of the supplier of the safety data sheet

Company Identification Detectortesters (No Climb Products Ltd), Edison House, 163 Dixons 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

Regulation (EC) No. 1272/2008 (CLP) Not classified as dangerous for supply/use.

#### 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

#### 3.2 Mixtures

EC Classification No. 1272/2008

SOLO760, SOLO770, SCORP50

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.
Nickel dihydroxide	25<45	12054-48-7	235-008-5
Nickel oxide		1313-99-1	215-215-7
Nickel		7440-02-0	231-111-4
Potassium hydroxide	5	1310-58-3	215-181-3
Cobalt	2<4.5	7440-48-4	231-158-0
Cobalt Oxide		1307-96-6	215-154-6
Cobalt Hydroxide		21041-93-0	244-166-4
Lanthanum	<10	7439-91-0	231-099-0

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Cerium		7440-45-1	231-154-9
Neodymium		7440-00-8	231-109-3
Praseodymium		7440-10-0	231-120-3
Iron	7.5<20	7439-89-6	231-096-4
Sodium hydroxide	<4	1310-73-2	215-185-5

### 3.3 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.  
Electrolyte leakage: Causes severe skin burns and eye damage.

### 4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

## 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.

### 6.4 Reference to other sections

See Also Section 8.

## 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.

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### 8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Nickel dihydroxide	12054-48-7	-	0.5	-	-	WEL, Sk
Nickel hydroxide	1313-99-1					WEL
Nickel	7440-02-0					WEL
Potassium hydroxide	1310-58-3	-	-	-	2	WEL
Sodium hydroxide	1310-73-2	-	-	-	2	WEL
Cobalt dihydroxide	21041-93-0	-	0.1	-	-	WEL
Cobalt oxide	1307-96-6					WEL
Cobalt	21041-93-0					WEL
Manganese	7439-96-5	-	1	-	3	WEL

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.



Thermal hazards

Not applicable.

##### 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.
Relative density	3.8g/cm³ @ 21°C (Nickel dihydroxide).
Solubility(ies)	Slightly soluble in: Water (Nickel dihydroxide).
Partition coefficient: n-octanol/water	Not applicable.

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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.
<b>9.2 Other information</b>	None.

### SECTION 10: STABILITY AND REACTIVITY

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

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

### SECTION 12: ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>	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.
<b>12.2 Persistence and degradability</b>	Not applicable.
<b>12.3 Bioaccumulative potential</b>	Not applicable.
<b>12.4 Mobility in soil</b>	Not applicable.
<b>12.5 Results of PBT and vPvB assessment</b>	Not classified as PBT or vPvB.
<b>12.6 Other adverse effects</b>	None.

### SECTION 13: DISPOSAL CONSIDERATIONS

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

### SECTION 14: TRANSPORT INFORMATION

<b>14.1 UN number</b>	UN 3496
<b>14.2 UN proper shipping name</b>	Batteries, Nickel-metal hydride.
<b>14.3 Transport hazard class(es)</b>	
<b>ADR</b>	Not applicable.
<b>IMDG</b>	Not applicable under Special Provision: SP117 & SP963
<b>IATA</b>	Not applicable under Special Provision: A199
<b>DOT</b>	Not applicable under Special Provision: 130, 49CFR 172.102
<b>14.4 Packing group</b>	Not applicable.

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<b>14.5</b>	<b>Environmental hazards</b>	Not applicable.
<b>14.6</b>	<b>Special precautions for user</b>	Not applicable.
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
<b>14.8</b>	<b>Additional Information</b>	None.

### SECTION 15: REGULATORY INFORMATION

<b>15.1</b>	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
<b>15.1.1</b>	<b>EU regulations</b>	
	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.
<b>15.1.2</b>	<b>National regulations</b>	None known.
<b>15.2</b>	<b>Chemical Safety Assessment</b>	Not applicable.

### SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1,3,8.

#### 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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