

SOLO 370 LITHIUM-ION BATTERY

SAFETY DATA SHEET

SDS0096UK

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 Trade Name	Solo 370, Solo 370-XXX (XXX denotes customer variant), Solo 365-XXX (included as the battery for device) Mixture.
	CAS No. EINECS No. REACH Registration No.	Mixture. Mixture. None assigned.
1.2 Relevant identified uses of the substance or mixture and uses advised against	Identified Use(s) Uses Advised Against	Battery product. None known.
1.3 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 Fax E-mail	+44 (0) 1707 282760 +44 (0) 1707 282777 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. The battery is a sealed unit and therefore the ingredients present have no hazard potential except in a situation where the battery has been violated or dismantled.
2.2 Label elements	According to Regulation (EC) No. 1272/2008 (CLP) None. None. None. None. None.
2.3 Other hazards	None.
2.4 Additional Information	There is no hazard when the measures for handling and storage are followed. In case of cell damage, possible release of dangerous substances and a spontaneous flammable gas mixture may be released. Battery content must not get in contact with water. Contact with water liberates extremely flammable gases.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

EC Classification No. 1272/2008

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Pictogram(s) and Hazard Statement(s)
Cobalt oxide	<15	1307-96-6	215-154-6	Not available	GHS06, H301, H330; GHS08, H317, H334; GHS09, H410.
Manganese dioxide	<15	1313-13-9	215-202-6	Not available	GHS07, H302+H332.
Nickel Oxide	<15	1313-99-1	215-215-7	Not available	GHS07, H317, H350i, H372; GHS08, H413
Electrolyte(*)	<15	None	None	None assigned	GHS05; GHS06, H301; GHS08, H314, H372;

(*) Main Ingredients: Lithium hexafluorophosphate, organic carbonates

3.2 Additional Information

During the charge process a lithium carbon intercalation phase is formed, which is highly flammable and corrosive, but not released under normal usage.

Mercury content: Hg<0.1mg/kg

Cadmium content: Cd<1mg/kg

Lead content: Pb<10mg/kg

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

SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

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Inhalation	Unlikely route of exposure. Electrolyte leakage: Remove to fresh air immediately. Seek medical treatment.
Skin Contact	Unlikely route of exposure. Electrolyte leakage: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
Eye Contact	Unlikely Rroute of exposure. Electrolyte leakage: Flush eyes with water for at least 15 minutes. Seek medical treatment.
Ingestion	Unlikely route of exposure. Electrolyte leakage: Make victim drink plenty of water. Do not induce vomiting. Seek medical treatment.
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 Can cause damage to the eyes and skin. Unlikely to be required but if necessary treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media	Extinguish preferably with dry chemical or sand. Water.
Suitable Extinguishing media Unsuitable extinguishing media	
5.2 Special hazards arising from the substance or mixture	Hazardous decomposition product(s) include: Hydrofluoric acid (upon contact with water), Hydrogen fluoride (HF) gas, Carbon monoxide and Carbon dioxide.
5.3 Advice for fire-fighters	In case of major fire and large quantities: A self contained breathing apparatus should be worn. If possible, remove cell(s) from fire fighting area. If heated above 125°C, cell(s) can explode/vent. Cell is not flammable but internal organic material will burn if the cell is incinerated.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	Use PPE. Avoid contact with skin, eyes or clothing. Avoid breathing fumes.
6.2 Environmental precautions	Prevent entry into drains.
6.3 Methods and material for containment and cleaning up	Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal.
6.4 Reference to other sections	See Also Section: 8, 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling	Avoid mechanical damage to the cell. Do not open or disassemble. Do not throw batteries in water. Keep away from: Children Avoid overheating. Keep away from open flames, heat and sources of ignition.
7.2 Conditions for safe storage, including any incompatibilities	Ambient. Stable under normal conditions.
Storage temperature Storage life Incompatible materials	
7.3 Specific end use(s)	None anticipated. Battery product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters	Under normal conditions of battery use, internal components will not present a health or environmental hazard.
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8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Cobalt oxide	1307-96-6	-	0.1	-	-	WEL, Sen
Manganese dioxide	1313-13-9	-	0.5	-	-	WEL
Nickel oxide	1313-99-1	-	0.5	-	-	WEL, Carc
Lithium hexafluorophosphate	21324-40-3	-	2.5	-	-	WEL, Corr
Carbon	7440-44-0	-	10	-	-	WEL

WEL: Workplace Exposure Limit (UK HSE EH40)

8.1.2 Biological limit value	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/face protection.



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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 determined.
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
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.
Density	Not applicable.
Vapour density	Not applicable.
Relative density	Not applicable.
Solubility(ies)	Insoluble
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Kinematic Viscosity	Not applicable.
Explosive properties	Not explosive when used as intended.
Oxidising properties	Not oxidising when used as intended.

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	Do not heat the product.
10.5 Incompatible materials	Stable under normal conditions.
10.6 Hazardous decomposition product(s)	No hazardous decomposition products known when used as intended.

SECTION 11: TOXICOLOGICAL INFORMATION]

Unlikely to cause harmful effects under normal conditions of handling and use.

11.1 Information on toxicological effects

Acute toxicity	Low acute toxicity.
Skin corrosion / irritation	Non-irritant.
Serious eye damage / irritation	Not classified.
Respiratory or skin sensitization	It is not a skin sensitiser.
Germ cell mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity	None anticipated.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	None anticipated.

11.2 Other information

None.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Under normal conditions of battery use, internal components will not present a health or environmental hazard.
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	Do not flush spilt material into any public water system.

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SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Consult an accredited waste disposal contractor or the local authority for advice.
13.2 Additional Information	Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number	UN 3480 (when supplied as Solo 370-XXX) UN 3481 (when supplied as part of Solo 365-XXX)
14.2 UN proper shipping name	Lithium Ion Batteries (UN3480) Lithium Ion Batteries packed with equipment (UN3481)
14.3 Transport hazard class(es)	
ADR	Both UN3480 & UN3481 are NOT considered hazardous due to compliance to SP188
IMDG	Both UN3480 & UN3481 are NOT considered hazardous due to compliance to SP188
IATA	UN3480 (when supplied as Solo 370-XXX) UN 3481 (when supplied as part of Solo 365-XXX) Lithium-ion batteries in compliance with Section II of PI966
DOT	Not applicable.
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.

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	All chemicals are not listed.
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, preparations 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)	None known.
15.1.2 National regulations	
VOC-CH	0%
VOC-EU	0%
15.2 Chemical Safety Assessment	Not applicable.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 10, 11.

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
VOC	Volatile Organic Compounds

Hazard Statement(s)

H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H330	Fatal if swallowed.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Disclaimers

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Annex to the extended Safety Data Sheet (eSDS)

No information available.