



Material Safety Data Sheet

BATTERY PACK SLK1770BP LI-ION


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SECTION 1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 PRODUCT IDENTIFIER:	
Product form	Lithium-ion Battery Pack within robust casing.
Product Name	SLK1770BP Industrial Portable Power Generator 750W
Product Code	SLK1770BP
1.2 Relevant identified uses of the product and uses advised against 1.2.1 Relevant identified uses	Industrial use
Main use category	Industrial Portable Power Generator 750W for powering any compatible site equipment. Specifically designed to work with Ritelite mobile and portable area lighting products.
Industrial / Professional use spec	
1.3 Details of the supplier of the safety datasheet	Ritelite Systems Ltd Meadow Park, Bourne Road Essendine, Stamford, PE9 4LT Tel +44 (0) 1780765600 Fax +44 (0) 1780765700 Sales@ritelite.co.uk
1.4 Emergency telephone number	+44 (0) 1780765600

Identification Images



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SECTION 2. HAZARDS IDENTIFICATION

2.1 – Classification of the product

If used in line with manufacturers recommendations this product is not hazardous to human health and the environment. In case of tear, unseal or corrosion of the article, the following hazards resulting from the classification of the mixture - components inside the package, are possible (see Section 3 of the safety data sheet):

Carcinogenicity, Hazard Category 1A (Carc. 1A)

May cause cancer by inhalation. (H350i)

Specific target organ toxicity — Repeated exposure, Hazard Category 1 (STOT RE 1)

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

Skin corrosion, Hazard Category 1A (Skin Corr. 1A)

Causes severe skin burns and eye damage. (H314)

Acute toxicity (oral), Hazard Category 3 (Acute Tox. 3)

Toxic if swallowed. (H301)

Acute toxicity (inhalation), Hazard Category 4 (Acute Tox. 4)

Harmful if inhaled. (H332)

Sensitisation — Skin, Hazard Category 1 (Skin Sens. 1)

May cause an allergic skin reaction. (H317)

Hazardous to the aquatic environment — Acute Hazard, Category 1 (Aquatic Acute 1)

Very toxic to aquatic life. (H400)

Hazardous to the aquatic environment — Chronic Hazard, Category 1 (Aquatic Chronic 1)

Very toxic to aquatic life with long lasting effects. (H410)

Classification according to Directive 1999/45/EC:

Carcinogenic, Category 1

May cause cancer by inhalation. (R49)

Corrosive (C)

Causes severe burns. (R35)

Toxic (T)

Toxic: danger of serious damage to health by prolonged exposure through inhalation. (R48/23)

Toxic if swallowed. (R25)

Harmful (Xn)

Harmful by inhalation. (R20)

May cause sensitisation by skin contact. (R43)

Dangerous to the environment (N)

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. (R50/53)

Harmful effects on human health:

Product components are hermetically sealed in metal containers, which under normal conditions of use are not hazardous. In case of tear, unseal or corrosion of the article, its content has local toxic and corrosive effect. May cause burns to the skin, conjunctiva, cornea. May cause irritation of the mucous membranes and respiratory system characterized by scratching in the throat, cough. In case of ingestion, there is a risk of burns to mouth, throat, digestive tract, and perforation of the stomach walls. Symptoms: nausea, vomiting, severe pain. In people who are allergic may cause severe allergic reaction to even very small amounts of the product. With repeated exposure to intense inhalation may cause respiratory diseases. May cause cancer by inhalation.

Environmental effects:

Very toxic to aquatic life with long lasting effects.

Adverse effects associated with physico-chemical properties:

Unknown hazardous effects associated with physicochemical properties. With normal use there is no risk of fire or explosion, or the danger of electrolyte leakage from the product. Contact of product poles with other metals can lead to heating or leakage.

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2.2 – Label Elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Signal Word (CLP) : Not required

Hazard Statements (CLP): Not required

2.3 – Other Hazards

This mixture meets neither PBT nor vPvB criteria.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

The Lithium-ion battery pack consists of 168 cells which are in a hermetically sealed metallic container containing a number of chemicals and materials, the construction of which could potentially be hazardous upon release.

Substance	Material name	Concentration range (%)
Positive electrode	Lithium transition metal oxidate	20 - 60
Positive electrode's base	Aluminium	1 - 10
Negative electrode	Carbon	10 - 30
Negative electrode's base	Copper	1 - 15
Electrolyte	Organic electrolyte principally involves ester carbonate	5 - 25
Outer case	Aluminium, iron, aluminium laminated plastic	1 - 30

SECTION 4. FIRST AID MEASURES


4.1 Description of first aid measure

Show this safety data sheet to the doctor in attendance.

The information below refers to exposure to the ingredients.

Inhalation: Exposure occurs when product is damaged: remove casualty from exposure site to fresh air, place in reclining or sitting position, keep at rest and protect against heat loss. Quickly transport victim to an emergency care facility

Skin contact: Exposure occurs when product is damaged: in case of pouring fused product, rinse skin immediately with copious amount of water. Do not remove clothing. Cover burns with a sterile dressing. Quickly transport victim to an emergency care facility

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Eye contact: Exposure occurs when product is damaged: rinse immediately with copious amount of lukewarm water for at least 15 min. Quickly transport victim to an emergency care facility

Ingestion: Exposure occurs when product is damaged: if swallowed, DO NOT INDUCE VOMITING. Rinse mouth thoroughly with water. Quickly transport to emergency care facility

4.2 Most important symptoms and effects, both acute and delayed

Product components are hermetically sealed in metal containers, which under normal conditions of use are not hazardous. In case of tear, unseal or corrosion of the article, its content has local toxic and corrosive effect. May cause burns to the skin, conjunctiva, cornea. May cause irritation of the mucous membranes and respiratory system characterized by scratching in the throat, cough. In case of ingestion, there is a risk of burns to mouth, throat, digestive tract, and perforation of the stomach walls. Symptoms: nausea, vomiting, severe pain. In people who are allergic may cause severe allergic reaction to even very small amounts of the product. With repeated exposure to intense inhalation may cause respiratory diseases. May cause cancer by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed

In case of an allergic reaction (rash, swelling, redness) call a physician and show him the label or safety data sheet to apply appropriate antihistamines. Provide the assisting physician with SDS.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Foam dry powder, carbon dioxide (CO₂), sand.

Extinguishing media which must NOT be used for safety reasons

Water, water spray

Specific hazards

There's risk of receptacle bursting. In case of fire, carbon oxides, metal oxides, hydrogen fluoride may be formed.

Special protective equipment for firefighters

In the event of fire, wear self contained breathing apparatus. Wear gas-tight protective suit.

Hazardous decomposition products

Lithium compounds, carbon oxides, hydrogen fluoride

SECTION 6. ACCIDENTAL RELEASE MEASURES

The information below refers to exposure to the ingredients

Personal precautions

Wear protective clothing made of natural fabrics (cotton) or synthetic fibres, gloves made of nitrile (thickness 0.4 □ 0.05 mm, penetration time > 480 min.) or butyl (thickness 0.3 □ 0.05 mm, penetration time > 480 min.), safety goggles. Eliminate sources of ignition (extinguish open fire, announce prohibition of smoking and usage of sparking tools). Remove from the affected area unprotected persons who do not participate in removal of the failure. Avoid direct contact with the contents of damaged or open battery.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Do not allow material to contaminate ground water system.

To avoid risks to man and the environment, comply with the instructions for use.

Methods and materials for containment and cleaning up

Leakage is possible from damaged or unsealed package. Secure sink basins. Damaged packaging place in an overpack. Vapors dilute with water spray. Eliminate sources of ignition (extinguish open fire, announce prohibition of smoking and usage of sparking tools). Small amounts absorb into chemically inert binding material (sand, diatomaceous earth), transfer to tight containers and deliver to an authorized waste recipient. Wash contaminated surface with large amount of water.



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SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not open, disassemble, crush or burn the product. Do not connect the positive terminal to the negative terminal with electrical wire or chain. Avoid polarity reverse connection when installing the battery to an instrument. Do not wet the battery with water, seawater, drink or acid; or expose to strong oxidizer. Do not give a mechanical shock or deform. Do not use unauthorized charger or other charging method. Protect from exposure to heat or open flame. It is recommended to take special precautions when working with an open or damaged product to avoid contact with skin and eyes. Protect from releasing to a sewage system, surface, ground water and soil. Do not eat, drink or smoke while handling. Wash hands during intervals and after finishing work. Take off contaminated clothing and wash before reusing.

Storage

Technical measures/Storage conditions

Store in original containers, in a dry, ventilated storage room at temperatures up to 30°C. Keep away from heat and ignition sources, oxidizers, acids. Temperatures above 70°C may cause bursting of the product and leakage of the electrolyte. Protect from sunlight. Keep away from water and moisture.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Not required under normal use.

The information below refers to exposure to the ingredients.

Eye/face protection: In case of contact with contents of open or damaged product wear safety goggles.

Hands and skin protection: In case of contact with contents of open or damaged product wear protective clothing and gloves made of nitrile (thickness 0.4mm x 0.05 mm, penetration time > 480 min.) or butyl (thickness 0.3 mm x 0.05 mm, penetration time > 480 min).

Respiratory protection: In normal conditions not required. In case of contact with contents of open or damaged product and exceeding permissible concentrations of vapours, use respiratory protection with particle filter marked white and labelled P2 and vapour filter marked brown and labelled A. You can apply combined filters AP.

Occupational hygiene: General industrial hygiene rules apply. Don't allow exceeding occupational exposure levels. After finishing work remove contaminated clothes. Wash hands and face before work breaks. Wash entire body after finishing work. Do not drink, eat and smoke during handling and use.

Environmental exposure controls

The information below refers to exposure to the ingredients

Prevent product from entering drains.

Do not allow material to contaminate ground water system.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

General Information on basic physical and chemical properties

Physical state :	Solid
Appearance :	Battery Pack
Colour:	Silver
Odour:	Odourless
Odour threshold:	No data available



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pH:	No data available
Relative evaporation rate	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, Gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20 oC	No data available
Relative density	No data available
Solubility	Insoluble
Log Pow	No data available
Viscosity, Kinematic	No data available
Viscosity, Dynamic	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Keep away from heat and sources of ignition.

Materials to avoid

Water, strong oxidising agents, strong acids.

Hazardous decomposition products

None identified

SECTION 11. TOXICOLOGICAL INFORMATION

In normal conditions the battery pack is not hazardous to human health. There is some threat only in case of tear, unseal or corrosion, resulting in the possibility of releasing its contents.

The information below refers to exposure to the ingredients.

Local effects

May cause eye/skin irritation. May cause irritation of respiratory tract.

Long term toxicity


No data available. Avoid repeated exposure.

Specific effects

May cause sensitization by inhalation and skin contact. Limited evidence of a carcinogenic effect.

SECTION 12. ECOLOGICAL INFORMATION

If used as directed and if the integrity of the battery's package and security vent are maintained, the ingredients are not expected to pose a significant risk to the environment.

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Toxicity

In case of tear, unseal or corrosion of the battery pack, the mixture is very toxic to aquatic life with long lasting effects.

Mobility

No data available.

Persistence and degradability

Not readily biodegradable.

Eco-toxicity effects

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

Dispose of in accordance with local regulations. It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. It should not be released into the environment.

Contaminated packaging

Not applicable.

Further information

Never incinerate Li-Ion batteries.

Never dispose Li-Ion batteries as landfill.

European Waste Code:

16 06 05 other batteries and accumulators

SECTION 14. TRANSPORT INFORMATION

In accordance with ADR / IMDG

Other information

Goods to be shipped under packing instruction P910: This instruction applies to UN Nos 3090, 3019, 3480 & 3481 production runs consisting of not more than 100 cells or batteries and to pre-production prototypes of cells or batteries when these prototypes are carried for testing

14.1 UN Number

UN-No (ADR) : 3481

UN-No (IMDG) : 3481

14.2 UN Proper Shipping Name

Proper shipping name (ADR) : Lithium ion batteries contained in equipment

Proper shipping name (IMDG): Lithium ion batteries contained in equipment


14.3 Transport Hazard Class (es)

Transport Hazard class (ADR): Class 9

Danger Labels (ADR): Class 9



Transport Hazard class (IMDG): Class 9

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Danger Labels (IMDG): Class 9



14.4 Packing Group

Packing group (ADR): II

Packing group (IMDG): II

SECTION 15. REGULATORY INFORMATION

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

COMMISSION REGULATION (EU) No 109/2012 of 9 February 2012 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII (CMR substances);

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ EU L353 of December, 31 2008, with later amendments 1-6 ATP);

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ EU L396 of December 30, with later amendments).

Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (Series I Volume 1967 P. 234 – 256)

Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations (OJ L 200, 30.7.1999, p. 1–68)

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)(OJ L 133, 31.5.2010, p. 1–43)

SECTION 16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.