

Article data sheet

SECTION 1. Identification of the article and of the company/undertaking

Product identifier

 Product name
 Wattage

 BT740/1 Li 48 (44.4V(48VMAX) 4.0Ah 177.6Wh)
 44.4V(48VMAX) 4.0Ah 177.6Wh

Description

Lithium Ion battery for Garden tools

Details of the supplier of the article data sheet

 Name
 Full address
 District and Country

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SECTION 2. Hazards identification

The following document is drawn up in compliance with the provisions of Article 33 of Reg. 1907/2006 (REACH).

The classification of Reg. (EC) 1272/2008 criteria can not be applied to the product in question because of the definition provided by REACH Reg.

The following document is adopted for proper risk management focused on the intrinsic dangers of batteries.

SECTION 3. Composition/information on ingredients

the product is an article according to Reg. No. 1907/2006 (REACH) and does not contain substances identified as SVHC in concentrations > 0.1% such as to be indicated in this subsection.

For information, the components of the battery are shown below:

| Chemical name | Chemical formula | CAS No. | Wt % |
|--|------------------|-------------|--------------|
| Cobalt lithium manganese nickel oxide | - | 182442-95-1 | 41 |
| Graphite | C | 7782-42-5 | 22 |
| Lithium hexafluorophosphate(1-) (Electrolyte) | LiP F6 | 21324-40-3 | 16 |
| Copper (sheet) | Cu | 7440-50-8 | 11 |
| Aluminum (sheet) | Al | 7429-90-5 | 5 |
| Polypropylene | Polypropylene | 9003-07-0 | 1 |
| Poly(vinylidene fluoride) | C2H2F2 | 24937-79-9 | 1 |
| Carboxymethyl cellulose sodium salt (Adhesive) | C8H15NaO8 | 9004-32-4 | 1 |
| 1,3 Butadiene/styrene copolymers | C12H14 | 9003-55-8 | 1 |
| carbon (Conducting agent) | C5 | 1333-86-4 | 1 |
| Lead | Pb | 7439-92-1 | Not detected |
| Cadmium | Cd | 7440-43-9 | Not detected |
| Mercury | Hg | 7439-97-6 | Not detected |

SECTION 4. First aid measures

Main symptoms due to direct exposure to the product components:

in case of ingestion, due to caustic alkalis, severe irritation of the gastrointestinal tract can occur with potential injuries.
If the vapors are inhaled, severe upper respiratory tract irritation may occur.
In contact with mucous membranes, eyes or skin, severe irritation may occur with possible irreversible results.

Description of first aid measures

The following measures are to be considered if you come into direct contact with the battery components (due to breakage or misuse).

Inhalation: Bring to fresh air. Seek medical attention if discomfort persists.

Ingestion: Get medical advice. Do not administer anything orally if the subject is unconscious and without the authorization of a doctor.

Eyes and skin: Wash with plenty of water. In case of persistent irritation or skin rash, consult a doctor.

Indication of any immediate medical attention and special treatment needed

Treat the effects caused by the product symptomatically.

SECTION 5. Firefighting measures

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, powder and sand.

Hazardous decomposition products

CO_x and lithium oxides.

SECTION 6. Accidental release measures

This section relates to an accidental release of internal battery components due to failure or improper use.

Do not breathe fumes or touch liquids leaking from the battery. In case of contact with the internal components of the battery, refer to the first aid measures indicated in section 4.

Methods and material for containment and cleaning up

Confine using earth or inert material. Collect as much material as possible. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 7. Handling and storage

Prevent short circuits by avoiding exposing the battery to a too hot environment (it could cause loss of performance and battery life).

Do not recharge or force discharge of the battery.

Store in a dry and well-ventilated place, away from direct sunlight.

Keep containers away from any incompatible materials, see section 10 for details.

SECTION 8. Exposure controls/personal protection

The exposure limit values to be adopted in the event of a leakage of the battery constituents are indicated below:

The product is an article according to Reg. No. 1907/2006 (REACH) and does not contain components with exposure limits that require to be reported in this section.

No protective measures are required for this product under normal conditions of use.

The protective measures in case of risk are listed below:

Respiratory protection: In all fire conditions, use a self-contained breathing apparatus to avoid inhalation of gas or hazardous substances derived from the decomposition of the components.

Hand protection: in situations where tampering occurs with subsequent loss of internal battery components, use protective gloves of category K, L (butyl rubber).

Eye protection: Use protective goggles or face masks to avoid any contact with the product.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|------------|---|
| Appearance | Solid; Battery |
| Odour | In case of leaks, smells of medical ether |

SECTION 10. Stability and reactivity

Possibility of hazardous reactions.

If subjected to overheating it can explode.

Avoid contact of the product with strong acids and bases.

If there is a leak of the internal material, remove all sources of water.

Conditions to avoid.

Avoid all sources of ignition and heat, tampering, breakage, short circuit.

Avoid storing the product in humid environments and in the presence of acidic or basic products.

SECTION 11. Toxicological information

Information not available (the product is an article).

SECTION 12. Ecological information

Information not available (the product is an article).

SECTION 13. Disposal considerations

Product residues are to be considered special hazardous waste. The dangerousness of the waste that partially contains this product must be evaluated according to the laws in force.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The lithium ion batteries covered by this safety data sheet have a nominal energy exceeding 100 Wh, therefore the shipment must be conducted in accordance with the ADR, IMDG and IATA-DGR provisions. In the specific case, the conditions of Section IA (PI 965) of IATA-DGR must be respected in the case of loose batteries and Section I (PI 966 and 967) of IATA-DGR in the case of batteries packed with / contained in the device.

The people in charge of loading and unloading dangerous goods must have received appropriate training on the dangers and risks presented by the product and on any procedures to be adopted in the event of emergency situations.

UN number and proper shipping name

Depending on how they are packaged, lithium batteries must be assigned one of the following UN numbers:

BT740/1 Li 48 (44.4V(48VMAX) 4.0Ah 177.6Wh)

1) Loose batteries

| | | |
|--------------|---------|-----------------------|
| ADR/ADN/RID: | UN 3480 | LITHIUM ION BATTERIES |
| IMDG: | UN 3480 | LITHIUM ION BATTERIES |
| IATA: | UN 3480 | LITHIUM ION BATTERIES |

2) Batteries contained in a device

| | | |
|--------------|---------|--|
| ADR/ADN/RID: | UN 3481 | LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT |
| IMDG: | UN 3481 | LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT |
| IATA: | UN 3481 | LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT |

3) Batteries packed with a device

| | | |
|--------------|---------|---|
| ADR/ADN/RID: | UN 3481 | LITHIUM ION BATTERIES PACKED WITH EQUIPMENT |
| IMDG: | UN 3481 | LITHIUM ION BATTERIES PACKED WITH EQUIPMENT |
| IATA: | UN 3481 | LITHIUM ION BATTERIES PACKED WITH EQUIPMENT |

Transport hazard classes

ADR/ADN/RID: 9
 IMDG: 9
 IATA: 9

Packing group

ADR/ADN/RID: Not applicable
 IMDG: Not applicable
 IATA: Not applicable

Environmental hazards

ADR/ADN/RID: NO
 IMDG: NO
 Marine Pollutant: NO
 IATA: NO

Special precautions for users


| ADR/ADN/RID | UN3480 | UN3481 |
|----------------------|---|---|
| Classification code: | M4 | M4 |
| Transport category: | 2 | 2 |
| N. Kemler: | Not applicable | Not applicable |
| Labels: | 9A | 9A |
| Special provisions: | 188 – 230 – 310 – 348 - 376 – 377 – 387 - 636 | 188 – 230 – 310 – 348 - 360 – 376 – 377 – 387 – 390 - 670 |
| Limited quantity: | 0 | 0 |
| Exempt quantity: | E0 | E0 |
| Tunnels code: | (E) | (E) |



| IMDG | UN3480 | UN3481 |
|----------------------|---|---|
| Labels: | 9A | 9A |
| Special provisions: | 188 – 230 – 310 – 348 - 376 – 377 – 384 - 387 | 188 – 230 – 310 – 348 - 360 – 376 – 377 – 384 - 387 |
| Limited quantity: | 0 | 0 |
| Exempt quantity: | E0 | E0 |
| EmS: | F-A, S-I | F-A, S-I |
| Stowage and handling | Category A, SW19 | Category A, SW19 |
| Segregation | - | - |



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| IATA | UN3480 | UN3481 contained in equipment | UN3481 packed with equipment | |
|-------------------------|--|---|---|---|
| Labels: | Miscellaneous Lithium batt | Miscellaneous Lithium batt | Miscellaneous Lithium batt |  |
| Exempt quantity: | E0 | E0 | E0 | |
| Limited quantity: | Forbidden | Forbidden | Forbidden | |
| Packaging instructions: | Passengers: Forbidden Cargo: 965 | Passengers: 967 Cargo: 967 | Passengers: 966 Cargo: 966 | |
| Section | Section IA | Section I | Section I | |
| Maximum quantity: | Passengers: Forbidden Cargo: 35 kg | Passengers: 5 kg Cargo: 35 kg | Passengers: 5 kg Cargo: 35 kg | |
| Special instructions: | A88 – A99 – A154 – A164 – A183 – A201 – A206 – A213 – A331 – A334 – A802 | A48 - A88 – A99 – A154 – A164 – A181 – A185 – A206 – A213 | A88 – A99 – A154 – A164 – A181 – A185 – A206 – A213 | |

SECTION 15. Regulatory information

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

None

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

SECTION 16. Other information

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

First issue of the document