SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Lithium-Ion Battery — Rechargeable
Model Number: R840086
Issue Date: November 2018
Company Phone Number: 1-866-539-1710
Emergency Contact Number: Chemtrec (United States only): 1-800-424-9300
(International): +1-703-741-5970
Techtronic Industries Power Equipment
P.O. Box 1268
Anderson, SC 29622

SECTION 2: HAZARDS IDENTIFICATION

Refer to battery cell SDS for more information.
No exposure to hazards during routine handling of product.

⚠️ WARNING:
- To reduce the risk of injury, user must read operator's manual.
- Risk of fire and burns.
- Do not open, crush, heat above 50°C, incinerate, or short terminals.
- Follow manufacturer's instructions.
- Use only with charger listed in operator's manual.
- Remove battery from tool when storing, changing attachments, or making adjustments.
- To reduce the risk of explosion and possible injury, do not place battery near fire or heat.
- Do not crush, drop, or damage battery pack.
- Do not use a battery pack that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- Under extreme usage or temperature conditions, battery leakage may occur. If fluid comes in contact with your skin, wash immediately with soap and water. If fluid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.
- Battery cells and battery pack assembly will burn if incinerated.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

Refer to battery cell SDS for more information.
SECTION 4: FIRST AID MEASURES

Refer to battery cell SDS for more information.
No exposure to hazards during routine handling of product.

⚠️ WARNING:
- To reduce the risk of injury, user must read operator’s manual.
- Risk of fire and burns.
- Do not open, crush, heat above 50°C, incinerate, or short terminals.
- Follow manufacturer’s instructions.
- Use only with charger listed in operator’s manual.
- Remove battery from tool when storing, changing attachments, or making adjustments.
- To reduce the risk of explosion and possible injury, do not place battery near fire or heat.
- Do not crush, drop, or damage battery pack.
- Do not use a battery pack that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- Under extreme usage or temperature conditions, battery leakage may occur. If fluid comes in contact with your skin, wash immediately with soap and water. If fluid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.
- Battery cells and battery pack assembly will burn if incinerated.
- No exposure during routine handling of product. Risk of exposure occurs only if the battery is mechanically or electrically abused.
- No effect under routine handling and use to eyes, skin, or if inhaled. Ingestion is not likely, given the physical size and state of the cell. If swallowed, seek medical attention immediately.
- If exposure to internal materials within cell due to damaged outer casing, the following actions are recommended:

  EYE CONTACT:
  - Flush with water for 10 minutes without rubbing and immediately seek medical attention.

  SKIN CONTACT:
  - Wash area immediately with soap and water. If irritation continues, seek medical attention.

  INHALATION:
  - Leave area immediately, move to fresh air, and seek medical attention.

  INGESTION:
  - If swallowed, contact POISON CONTROL CENTER immediately.

SECTION 5: FIRE FIGHTING MEASURES

Refer to battery cell SDS for more information.
SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:
• Use standard industrial clothing in normal use.
• If handling large containers of cells, wear steel-toed footwear.

ENVIRONMENTAL PRECAUTIONS:
No special precautions necessary.

METHODS FOR CONTAINMENT:
• Transport container outdoors.
• Always consult and obey all international, federal, and local environmental laws.

METHODS FOR CLEANUP:
No data available

OTHER INFORMATION:
No data available

SECTION 7: HANDLING AND STORAGE

HANDLING:
• Use only approved charging equipment.
• Do not disassemble battery or battery pack.
• Do not puncture, crush, or dispose of in fire.

STORAGE:
To obtain the longest possible battery life, we suggest the following:
• Remove the battery pack from the charger once it is fully charged and ready for use.
For battery pack storage longer than 30 days:
• Store the battery pack where the temperature is below 80°F and away from moisture.
• Store battery packs in a 30%-50% charged condition.
• Every six months of storage, charge the pack as normal.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Refer to battery cell SDS for more information.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
Battery pack consists of battery cells assembled in resin enclosure and is a solid odorless product that will burn if incinerated.
SECTION 10: STABILITY AND REACTIVITY

Refer to battery cell SDS for more information.
No exposure to hazards during routine handling of product.

⚠️ WARNING:
- To reduce the risk of injury, user must read operator’s manual.
- Risk of fire and burns.
- Do not open, crush, heat above 50°C, incinerate, or short terminals.
- Follow manufacturer’s instructions.
- Use only with charger listed in operator’s manual.
- Remove battery from tool when storing, changing attachments, or making adjustments.
- To reduce the risk of explosion and possible injury, do not place battery near fire or heat.
- Do not crush, drop, or damage battery pack.
- Do not use a battery pack that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- Under extreme usage or temperature conditions, battery leakage may occur. If fluid comes in contact with your skin, wash immediately with soap and water. If fluid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.
- Battery cells and battery pack assembly will burn if incinerated.

SECTION 11: TOXICOLOGY INFORMATION

Refer to battery cell SDS for more information.
No exposure to hazards during routine handling of product.

⚠️ WARNING:
- To reduce the risk of injury, user must read operator’s manual.
- Risk of fire and burns.
- Do not open, crush, heat above 50°C, incinerate, or short terminals.
- Follow manufacturer’s instructions.
- Use only with charger listed in operator’s manual.
- Remove battery from tool when storing, changing attachments, or making adjustments.
- To reduce the risk of explosion and possible injury, do not place battery near fire or heat.
- Do not crush, drop, or damage battery pack.
- Do not use a battery pack that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- Under extreme usage or temperature conditions, battery leakage may occur. If fluid comes in contact with your skin, wash immediately with soap and water. If fluid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.
- Battery cells and battery pack assembly will burn if incinerated.
SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:
None in routine handling of product.

TOXICITY:
No data available

PERSISTENCE AND DEGRADABILITY (BIOPERSISTENCY & BIODEGRADABILITY):
None in routine handling of product.

POTENTIAL OF BIOACCUMULATION:
None in routine handling of product.

MOBILITY IN SOIL:
None in routine handling of product.

OTHER ADVERSE EFFECTS:
No data available

DISPOSAL:
Follow guidelines in Section 13.

SECTION 13: DISPOSAL CONSIDERATIONS

This product contains Lithium-ion batteries. Local, state or federal laws may prohibit disposal of batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.

DISPOSAL:
- Dispose in accordance with appropriate regulations.
- Always consult and obey all international, federal, provincial/state, and local hazardous waste disposal laws. Some jurisdictions require recycling of this spent product. Battery recycling is encouraged.
- Lithium-ion batteries are safe for disposal in the normal municipal waste stream since they are not defined by the federal government as hazardous waste. However, Lithium-ion batteries are recyclable.
- To preserve natural resources, please recycle or dispose of batteries properly.

⚠️ WARNING:
- Upon removal, cover the battery pack’s terminals with heavy-duty adhesive tape.
- Do not attempt to destroy or disassemble battery pack or remove any of its components.
- Batteries must be recycled or disposed of properly.
- Also, never touch both terminals with metal objects and/or body parts as short circuit may result.
- Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.
- This product does not contain mercury, cadmium or Lithium (metal).
- DO NOT INCINERATE battery cells.
SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT Hazardous Material Regulations (Re: Ground Transport)

Lithium-ion batteries under 101 watt hours or Lithium-ion batteries packed with equipment under 101 watt hours when packaged correctly are not subject to any regulations when traveling by ground in the continental U.S.

Canada Transport Dangerous Goods (Re: Ground Transport)

Lithium-ion batteries under 101 watt hours or Lithium-ion batteries packed with equipment under 101 watt hours when packaged correctly are not subject to any regulation when traveling by ground in Canada.

International Dangerous Goods Regulations (Re: Air, Sea, Ground Transport)

Lithium-ion batteries under 101 watt hours or Lithium-ion batteries under 101 watt hours packed with equipment are not subject to any regulation when packaged correctly when shipped by sea.

No more than (2) Lithium-ion batteries under 101 watt hours can be shipped in a box by air, and no more than 1 shipment can be sent to a consignee in a day. The package must contain a Red Border Lithium-ion label (ICAO) containing an emergency contact telephone number and a Cargo Aircraft only label.

For accessory batteries under 101 watt hours when shipped by air, Dangerous Goods declaration must be presented to the air forwarder and the shipment identified as 1B on the declaration. The following labels must be attached: DG9 diamond label, Cargo Aircraft Only label, UN3480 Lithium-ion batteries label (all 3 of those labels must be on the same side of the carton), and the Red Border Lithium-ion label (ICAO).

SECTION 15: REGULATORY INFORMATION

Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub section 38.3.

CALIFORNIA PROPOSITION 65

WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

SECTION 16: OTHER INFORMATION

The information contained within this document is provided for your information only. In case of any discrepancy, the information provided in the battery cell Safety Data Sheet takes precedence over the information provided in the battery pack Technical Data Sheet.

Prepared by: Techtronic Industries Power Equipment

The batteries referenced herein are considered exempt articles and are not subject to the OSHA Hazard Communication Standard; therefore an SDS is not required. This sheet is being provided as a service to our customers.

The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. TECHTRONIC INDUSTRIES POWER EQUIPMENT makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereo.
Material Safety Data Sheet

1. Product and Company Identification

Important Note: As a solid, manufactured article, exposure to hazardous ingredients is not expected with normal use. This battery is an article pursuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement. The information contained in this Material Safety Data Sheet contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Commercial product name
INR18650-20R

Use of the substance/preparation
Lithium-Ion battery

Manufacturer
SAMSUNG SDI Co., LTD

Address
HQ: 428-5, Gongse-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Korea

Company/undertaking identification
Emergency Contact(Chemtrec)
1-800-424-9300: US and Canada / 1-703-527-3887: International

Further Information
Battery-System: Lithium-Ion (Li-ion)
Nominal Voltage: 3.6 V
Rated Capacity: 1.95 Ah
Wh rating: 7.02 Wh
Anode (negative electrode): based on intercalation graphite
Cathode (positive electrode): based on lithiated metal oxide (Cobalt, Nickel, Manganese)

Remark:
The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. SAMSUNG SDI Co., Ltd. makes no warranty, expressed or implied, with respect to this information and disclaims all liabilities from reliance on it.

2. Hazards Identification

Route(s) of Entry
There is no hazard when the measures for handling and storage are followed.

Signs and Symptoms of Exposure
In case of cell damage, possible release of dangerous substances and a flammable gas mixture.
OSHA Hazard Communication: This material is not considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200.

Carcinogenicity (NTP): Not listed
Carcinogenicity (IARC): Not listed
Carcinogenicity (OSHA): Not listed

Special hazards for human health and environment
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 flammable gas mixture.

3. Composition/information on ingredients

Hazardous components

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1307-96-6</td>
<td>Cobalt oxide</td>
<td>&lt; 30 %</td>
</tr>
<tr>
<td>1313-13-9</td>
<td>Manganese dioxide</td>
<td>&lt; 30 %</td>
</tr>
<tr>
<td>1313-99-1</td>
<td>Nickel oxide</td>
<td>&lt; 30 %</td>
</tr>
<tr>
<td>7440-44-0</td>
<td>Carbon</td>
<td>&lt; 30 %</td>
</tr>
<tr>
<td></td>
<td>Electrolyte (*)</td>
<td>&lt; 20 %</td>
</tr>
<tr>
<td>24937-79-9</td>
<td>Polyvinylidene fluoride (PVdF)</td>
<td>&lt; 10 %</td>
</tr>
<tr>
<td>7429-90-5</td>
<td>Aluminium foil</td>
<td>2 - 10 %</td>
</tr>
<tr>
<td>7440-50-8</td>
<td>Copper foil</td>
<td>2 - 10 %</td>
</tr>
<tr>
<td></td>
<td>Aluminium and inert materials</td>
<td>5 - 10 %</td>
</tr>
</tbody>
</table>

Full text of each relevant R phrase can be found in heading 16.

Further Information
For information purposes:
(*) Main ingredients: Lithium hexafluorophosphate, organic carbonates

Because of the cell structure the dangerous ingredients will not be available if used properly.
During charge process a lithium graphite intercalation phase is formed.

Mercury content: Hg < 0.1mg/kg
Cadmium content: Cd < 1mg/kg
Lead content: Pb < 10mg/kg

4. First Aid Measures

General information
The following first aid measures are required only in case of exposure to interior battery components after damage of the external battery casing.
Undamaged, closed cells do not represent a danger to the health.

After inhalation
Ensure of fresh air. Consult a physician.

**After contact with skin**
In case of contact with skin wash off immediately with plenty of water. Consult a physician.

**After contact with eyes**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical treatment by eye specialist.

**After ingestion**
Drink plenty of water.
Call a physician immediately.

**5. Fire Fighting Measures**

**Suitable extinguishing media**
Cold water and dry powder in large amount are applicable.
Use metal fire extinction powder or dry sand if only few cells are involved.

**Special hazards arising from the chemical**
May form hydrofluoric acid if electrolyte comes into contact with water.
In case of fire, the formation of the following flue gases cannot be excluded:
Hydrogen fluoride (HF), Carbon monoxide and carbon dioxide.

**Protective equipment and precautions for firefighters**
Wear self-contained breathing apparatus and protective suit.
Additional information
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.

**6. Accidental Release Measures**

**Personal precautions**
Use personal protective clothing.
Avoid contact with skin, eyes and clothing.
Avoid breathing fume and gas.

**Environmental precautions**
Do not discharge into the drains/surface waters/groundwater.
Methods for cleaning up/taking up
Take up mechanically and send for disposal.

**7. Handling and Storage**

**Handling**

**Advice on safe handling**
Avoid short circuiting the cell. Avoid mechanical damage of the cell. Do not open or disassemble.
Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition.
## Storage

Requirements for storage rooms and vessels
Storage at room temperature (approx. 20°C) at approx. 20% of the nominal capacity (OCV approx. 3.6 - 3.9 V/cell).
Keep in closed original container.

### 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Codes</th>
<th>Safety Description</th>
<th>Hazard</th>
<th>Exposure Controls/Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt oxide</td>
<td>R22; R43; R50/53</td>
<td>S24; S37; S60; S61</td>
<td>Xn(Harmful) N (Dangerous for the environment)</td>
<td>0.1 mg/m3 (TWA)</td>
</tr>
<tr>
<td>Manganese (VI) oxide</td>
<td>R20/22</td>
<td>S25</td>
<td>Xn(Harmful)</td>
<td>Airborne Exposure Limits:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- OSHA Permissible Exposure Limit (PEL):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 mg/m3 Ceiling for manganese compounds as Mn</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- ACGIH Threshold Limit Value (TLV):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.2 mg/m3 (TWA) for manganese, elemental and inorganic compounds as Mn</td>
</tr>
<tr>
<td>Nickel oxide</td>
<td>R43, R49, R53</td>
<td>S45, S53, S61</td>
<td>T(Toxic)</td>
<td>Airborne Exposure Limits:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- For Nickel, Metal and Insoluble Compounds, as Ni:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- OSHA Permissible Exposure Limits (PEL):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 mg/m3 (TWA).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- For Nickel, Elemental / Metal:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- ACGIH Threshold Limit Value (TLV):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.5 mg/m3 (TWA), A5 - Not suspected as a human carcinogen.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- For Nickel, Insoluble Compounds, as Ni:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- ACGIH Threshold Limit Value (TLV):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.2 mg/m3 (TWA), A1 - Confirmed human carcinogen</td>
</tr>
<tr>
<td>Carbon</td>
<td>R36/37/38, R36/37, R20, R10</td>
<td>S22; S24/25</td>
<td>F( Highly Flammable) Xn(Harmful) X( Irritant)</td>
<td>Airborne Exposure Limits:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- OSHA Permissible Exposure Limits (PEL):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- activated carbon (graphite, synthetic):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total particulate = 15 mg/m3</td>
</tr>
<tr>
<td>Aluminium foil</td>
<td>R17, R15, R36/38, R10, R67, R65, R62, R51/53, R49/20, R38, R11</td>
<td>S7/8, S43, S26, S62, S61, S36/37, S33, S29, S16, S9</td>
<td>F(Highly Flammable) Xn(Harmful) X( Irritant)</td>
<td>Airborne Exposure Limits:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- OSHA Permissible Exposure Limit (PEL):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- 15 mg/m3 (TWA) total dust and 5 mg/m3 (TWA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- repairable fraction for Aluminum metal as Al</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- ACGIH Threshold Limit Value (TLV):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- 10 mg/m3 (TWA) Aluminum metal dusts</td>
</tr>
</tbody>
</table>
Copper foil
- R11 R36
- R37 R38
- S5 S26 S16 S61 S36/37

Polyvinylidene fluoride (PVdF)
- S22 S24/25

Copper Dust and Mists, as Cu:
- OSHA Permissible Exposure Limit (PEL) - 1 mg/m³ (TWA)
- ACGIH Threshold Limit Value (TLV) - 1 mg/m³ (TWA)

Copper Fume:
- OSHA Permissible Exposure Limit (PEL) - 0.1 mg/m³ (TWA)
- ACGIH Threshold Limit Value (TLV) - 0.2 mg/m³ (TWA)

**Additional advice on limit values**
During normal charging and discharging there is no release of product.

**Occupational exposure controls**
No specific precautions necessary.

**Protective and hygiene measures**
When using do not eat, drink or smoke. Wash hands before breaks and after work.

**Respiratory protection**
No specific precautions necessary.

**Hand protection**
No specific precautions necessary.

**Eye protection**
No specific precautions necessary.

**Skin protection**
No specific precautions necessary.

**9. Physical and Chemical Properties**

**Appearance**
- Form: Solid
- Color: Various
- Odor: Odourless

**Important health, safety and environmental information**

Test method
- pH Value: n.a.
- Flash point: n.a.
- Lower explosion limits: n.a.
- Vapour pressure: n.a.
- Density: n.a.
Water solubility: Insoluble
Ignition temperature: n.a.

10. Stability and Reactivity USA, EU

Stability
Stable

Conditions to avoid
Keep away from open flames, hot surfaces and sources of ignition. Do not puncture, crush or incinerate.

Materials to avoid
No materials to be especially mentioned.

Hazardous decomposition products
In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

Possibility of Hazardous Reactions
Will not occur

Additional information
No decomposition if stored and applied as directed.

11. Toxicological Information

Empirical data on effects on humans
If appropriately handled and if in accordance with the general hygienic rules, no damages to health have become known.

12. Ecological Information

Further information
Ecological injuries are not known or expected under normal use. Do not flush into surface water or sanitary sewer system.

13. Disposal Considerations

Advice on disposal
For recycling consult manufacturer.

Contaminated packaging
Disposal in accordance with local regulations.

14. Transport Information

The rechargeable Lithium-Ion battery pack as stated in Appendix are made in compliance to the requirements stated in the latest edition of the IATA Dangerous Goods Regulations Packing Instruction 965,966,967 section II such that they can be transported as a NOT RESTRICTED (non-hazardous/non-dangerous) goods. However, if those lithium-ion battery packs are pack with or contained in an equipment, then it is the responsibility of the shipper to ensure that the consignment are
packed in compliance to the latest edition of the IATA Dangerous Goods Regulations section II of either Packing Instruction 965 or 967 in order for that consignment to be declared as NOT RESTRICTED (non-hazardous/non-Dangerous).

With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing Instruction 965,966,967 Section II (2013-2014 Edition),
- The International Air Transport Association (IATA) Dangerous Goods Regulations, Packing Instruction 965,966,967 Section II (54th Edition, 2013)
- US Harazardous Materials Regulations 49 CFR(Code of Federal Regulations) Sections 173-185 Lithium batteries and cells,
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria 38.3 Lithium batteries, Rev.5, Amend.1
- UN No. 3480 & UN No. 3481

Our products are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to all the applicable international and national governmental regulations, not limited to the above mentioned. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in accordance with UN Recommendations (T1 – T8) on the Transport of Dangerous Goods Model Regulations and the Manual of Testes and Criteria that can be treated as “Non-Dangerous Goods”.

| Test results of the UN Recommendation on the Transport of Dangerous Goods |
|-----------------------------------------------|-----------|----------|
| Manual of Test and Criteria (38.3 Lithium battery) | Test Results | Remark |
| No | Test item | |
| T1 | Altitude Simulation | Pass |
| T2 | Thermal Test | Pass |
| T3 | Vibration | Pass |
| T4 | Shock | Pass |
| T5 | External Short Circuit | Pass |
| T6 | Impact | Pass |
| T7 | Overcharge | Pass |
| T8 | Forced Discharge | Pass |

15. Regulatory Information

U.S. Regulations

National Inventory TSCA
All of the components are listed on the TSCA inventory.

SARA
To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

Regulatory information EU

Labeling
Hazardous components which must be listed on the label
As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

**EU regulatory information**

1999/13/EC (VOC): 0%

**16. Other Information**

**Hazardous Materials Information Label (HMIS)**

Health: 0
Flammability: 0
Physical Hazard: 0

**NFPA Hazard Ratings**

Health: 0
Flammability: 0
Reactivity: 0
Unique Hazard: 

**Full text of R-phrases referred to under sections 2 and 3**

R10  Flammable.
R20/22  Harmful by inhalation and if swallowed.
R22  Harmful if swallowed.
R34  Causes burns.
R40  Limited evidence of a carcinogenic effect.
R43  May cause sensitization by skin contact.
R48/23  Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R49  May cause cancer by inhalation.
R50  Very toxic to aquatic organisms.
R53  May cause long-term adverse effects in the aquatic environment.

**Further Information**

Data of sections 4 to 8, as well as 10 to 12, do not necessarily refer to the use and the regular handling of the product (in this sense consult package leaflet and expert information), but to release of major amounts in case of accidents and irregularities. The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations. *(n.a. = not applicable; n.d. = not determined)*

The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.