

SONY

Sony Energy Devices Corporation

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NO.: 企画-ほか-2280387

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PRODUCT SAFETY DATA SHEET

IDENTITY

Product Category	: Lithium-Ion Rechargeable Battery
Model Name	: US18650V3B
Nominal Capacity	: 2100mAh (7.8Wh)
Rated Capacity	: 2000mAh (7.4Wh)
Average Operating Voltage	: 3.7V
Chemical System	: Lithium Transition Metal Oxides /Carbon
Designed for Recharge	: <input checked="" type="checkbox"/> Yes. <input type="checkbox"/> No.

Lithium ion batteries are not subject to dangerous goods regulation for the purpose of transportation by the U.S. Department of Transportation (DOT), the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) or the International Maritime Dangerous Goods regulations (IMDG). With regard to air transport, the International Civil Aviation Organization (ICAO) Packing Instruction 965 Section II complies with the Recommendation as is; further, the International Air Transport Association (IATA) adopts ICAO Packing Instruction 965 Section II. In addition, the regulations of the US Department of Transportation for land, sea and air transportation are based on the UN Recommendations.

SECTION I MANUFACTURER'S INFORMATION

Manufacturer's Name	: Sony Energy Devices Corporation
Manufacturer's Address	: 1-1 Shimosugishita, Takakura, Hiwada-machi, Koriyama-shi, Fukushima, 963-0531 Japan
Manufacturer's Telephone	: +81-50-3807-3059
Date Prepared	: Aug. 20, 2012
Signature of Paper	: 

SECTION II MATERIALS AND INGREDIENTS INFORMATION

IMPORTANT NOTE: The battery should not be opened or burned since the following ingredients contained within the battery that could be harmful under some circumstance if exposed or misused.

The battery contains neither metallic lithium nor lithium alloy.

Cathode	: Lithium Nickel Cobalt Manganese Oxides (active material)
	Polyvinylidene Fluoride (binder)
	Graphite (conductive material)
Anode	: Graphite (active material)
	Polyvinylidene Fluoride (binder)
Electrolyte	: Organic Solvent (non-aqueous liquid)
	Lithium Salt
Others	: Heavy metals such as Mercury, Cadmium, Lead, and Chromium are not used in the batteries.

SECTION III FIRE HAZARD DATA

In case of fire, use CO₂, dry chemical extinguishers or a large amount of water.

SECTION IV HEALTH HAZARD DATA

Under normal condition of use, these chemicals are contained in sealed can. Risk of exposure occurs only if the battery is mechanically abused.

- Inhalation : Contents of an opened cell can cause respiratory irritation.
Remove to fresh air immediately and call a doctor.
- Skin Contact : Contents of an opened cell can cause skin irritation.
Wash skin with soap and water.
- Eye Contact : Contents of an opened cell can cause eye irritation.
Immediately flush eyes thoroughly with water for at least 15 minutes. Seek
medical attention.

SECTION V PRECAUTIONS FOR SAFE HANDLING AND USE

- Storage : Store within the recommended limit of -20°C to 45°C (-4°F to 113°F), well-ventilated area. Do not expose to high temperature(60°C/140°F). Since short circuit can cause burn hazard or safety vent to open, do not store with metal jewelry, metal covered tables, or metal belt.
- Handling : Do not disassemble, crush, or solder. Do not short + and - terminals with a metal. Do not open the battery.
- Charging : Charge within the limits of 0°C to 45°C(32°F to 113°F) temperature.
Charge with specified charger designed for this battery.
- Discharging : Discharge within the limits of -20°C to 60°C(-4°F to 140°F) temperature.
- Disposal : Dispose in accordance with applicable federal, state and local regulation.
- Caution : Fire, Explosion, and Severe Burn Hazard. Do not Crush, Disassemble, Heat Above 100°C/212°F, or Incinerate.

SECTION VI SPECIAL PROTECTION INFORMATION

- Respiratory Protection : Not necessary under normal use.
Ventilation : Not necessary under normal use.
Eye Protection : Not necessary under normal use.
Protective Gloves : Not necessary under normal use.

DISCLAIMER

The information contained within is provided for your information only.

The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation.

However, Sony Energy Devices Corporation MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM RELIANCE ON IT.

CERTIFICATION FOR LITHIUM BATTERY

TRANSPORTATION CERTIFICATE

Concerning the transport according to the dangerous goods regulations of the different transport modes as in force since January, 1st 2003 and changes effective from 2013

WE HEREWITH CERTIFY THAT EACH CELL OF THIS TYPE IS PROVED TO MEET THE REQUIREMENTS OF EACH APPLICABLE TEST IN THE UN MANUAL OF TESTS AND CRITERIA, PART III, SUB-SECTION 38.3, REV. 5, AMEND. 2

CERTIFICATE/REPORT NO.:	BU-2014-02786-1-UN
UN No. / Shipping name:	UN 3480 LITHIUM ION BATTERY UN 3481 LITHIUM ION BATTERY packed with equipment / contained in equipment
Certified Product:	LITHIUM ION CELL (rechargeable)
Model Designation:	1S1P US18650V3B (3.7V/2.1Ah)
Article Number:	26192
Certificate Holder:	Alfred Kärcher GmbH & Co- KG Alfred-Kärcher-Strasse 28-40 · D-71364 Winnenden · Germany

PERFORMED TESTS	RESULTS
38.3.4.1 Test 1: Altitude Simulation	passed
38.3.4.2 Test 2: Thermal Test	passed
38.3.4.3 Test 3: Vibration	passed
38.3.4.4 Test 4: Shock	passed
38.3.4.5 Test 5: External Short Circuit	passed
38.3.4.6 Test 6: Impact	passed
38.3.4.7 Test 7: Overcharge	not applicable
38.3.4.8 Test 8: Forced Discharge	passed

► Watt-hour rating of the cell: **7,77 Wh** ◀

As the Watt-hour rating of the cell is not more than 20 Wh, this lithium ion cell is not subject to other provisions of ADR, RID, ADN and IMDG-Code if shipped in compliance with Special Provision 188.

Effective January 1, 2013 this lithium ion cell can be shipped by air in accordance with ICAO-TI or IATA-DGR, Section II or Section IB, Packing Instructions (PI) 965 (Lithium Ion Batteries), PI 966 (Lithium Ion Batteries, packed with equipment) and PI 967 (Lithium Ion Batteries, contained in equipment) as appropriate.

05.Dec.2014

Date of issue



Signature: Sven Bauer, CEO

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The regulation listed here reflects the status at the time of the release of this certificate.

