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INSPECTION
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NO.2620110149

SAFETY DATASHEET

Product Name: Lithium battery pack BT 20 Li 2.0 A
18V Nominal 20V Max 2.0Ah 36Wh

Effective Date: 2020-12-16

Compiler: He Xiaoshuang

Checker: Liu Lintian

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Shanghai Institute of Chemical Industry Testing Co., Ltd.



STIGA S.P.A

SAFETY DATA SHEET

Lithium battery pack BT 20 Li 2.0 A 18V Nominal 20V Max 2.0Ah 36Wh

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Lithium battery pack BT 20 Li 2.0 A 18V Nominal 20V Max 2.0Ah 36Wh
Company: STIGA S.P.A
Address: VIA DEL LAVORO 6, 31033, CASTELFRANCO VENETO (TV) - ITALY
Email: stiga@legalmail.it
Fax: +39 0423 450 862
Emergency Phone: 86-13771774887
SDS Number: 2620110149
Effective Date: 2020-12-16

SECTION2 HAZARDS IDENTIFICATION

Hazards Identification:

The battery has passed the test items of UN Model Regulations, Manual of Test and Criteria Section UN 38.3.

Emergency Overview:

Caution: Avoid contact and inhalation the electrolyte contained inside the battery.

SECTION3 INFORMATION ON INGREDIENTS

Product name: Lithium battery pack BT 20 Li 2.0 A 18V Nominal 20V Max 2.0Ah 36Wh

Ingredient	Concentration	CAS No.	EC No.
Cathode: Lithium Cobalt Oxide	20-50%	12190-79-3	235-362-0
Anode: Graphite	10-30%	7782-42-5	231-955-3
Electrolyte solvent, includes one or more of the following:	5-20%		
Ethylene carbonate		96-49-1	202-510-0
Propylene carbonate		108-32-7	203-572-1
Diethyl carbonate		105-58-8	203-311-1
Electrolyte Contains Electrolyte salt and	5-20%	/	/
Copper	3-15%	7440-50-8	231-159-6
Aluminum	2-10%	7429-90-5	231-072-3
Electrolyte salt Lithium hexafluorophosphate	0.05-5%	21324-40-3	244-334-7

Polyvinylidene Fluoride (PVDF)	<1%	24937-79-9	607-458-6
Steel, Nickel and inert components	Balance	/	/

SECTION4 FIRST-AID MEASURES

Skin Exposure:

If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water.

Eye Exposure:

In case of the internal battery materials in contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Inhalation Exposure:

If inhaled the internal materials of battery, remove immediately to fresh air and seek medical attention.

Oral Exposure:

If swallowed the internal materials of battery, do not induce vomiting. Seek immediate medical attention.

SECTION5 FIRE FIGHTING MEASURES

Extinguishing Media:

Suitable: Dry chemical, Sandy soil, Carbon dioxide or appropriate foam.

Firefighting:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazards: Emit toxic fumes under fire conditions.

SECTION6 ACCIDENTAL RELEASE MEASURES

Procedure of Personal Precaution:

If batteries show signs of leaking, avoid skin or eye contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean up. Mix with inert material (e.g. dry sand, vermiculite) and transfer to sealed container for disposal.

SECTION7 HANDLING AND STORAGE

Handling:

Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse. More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidizing agents, Corrosives.

Storage:

Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Materials to Avoid: Strong oxidizing agents, Corrosives.

SECTION8 EXPOSURE CONTROL/PPE

Engineering Controls:

Use ventilation equipment if available. Safety shower and eye bath.

Personal Protective Equipment:

Respiratory System: Not necessary under conditions of normal use.

Eyes: Not necessary under conditions of normal use.

Clothing: Wear appropriate protective clothing.

Hand: Safety gloves.

Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance: Black plastics cement shell

Odor: Odorless

Melting Point/°C: >300°C

Solubility: Partial soluble in water

SECTION10 STABILITY AND REACTIVITY

Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Avoid exposure to heat and open flame. Avoid mechanical or electrical abuse. Prevent short circuits. Prevent movement which could lead to short circuits.

Materials to Avoid:

Strong oxidizing agents, Corrosives.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

Metal oxides, CO, CO₂.

SECTION11 TOXICOLOGICAL INFORMATION

Toxicity Data:

Not available.

Irritation Data:

The internal battery materials may cause irritation to eyes and skin.

SECTION12 ECOLOGICAL INFORMATION

No data available.

SECTION13 DISPOSAL CONSIDERATION

Appropriate Method of Disposal of Substance:

Lithium batteries are best disposed of as a non-hazardous waste when fully or mostly discharged. Contact a licensed professional waste disposal service to dispose of large quantities materials.

SECTION14 TRANSPORT INFORMATION

The product has passed the test items of UN Model Regulations, Manual of Test and Criteria Section 38.3 and UN Model Regulations, SP188, 1.2m drop test. The total net weight of the Lithium batteries is less than 10 kg.

IATA DGR (61st): Proper Shipping Name: Lithium ion batteries UN Number: UN3480 Hazard Class: 9 The product shall meet the General Requirements and section IB of Packaging Instruction 965. According to 3.9.2.6.1(g) of IATA DGR (61st Edition) , Manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

IMO IMDG Code (2018 Edition): The product is not restricted to the other provisions of IMO IMDG Code according to special provision 188. According to 2.9.4.7 of IMDG Code(2018 Edition), Manufacturers and subsequent distributors of cells or batteries manufactured shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

SECTION15 REGULATORY INFORMATION

ICAO:

1. Unless be exempted according to ICAO TI, the lithium ion cell/batteries (UN 3480, PI 965) and lithium metal cell/batteries (UN 3090, PI 968) are forbidden for carriage on passenger aircraft.
2. Unless be approved according to ICAO TI, Lithium ion cells/batteries (UN 3480, PI 965) must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity.
3. A shipper is not permitted to offer for transport more than one (1) package prepared according to Section II of PI 965 and PI 968 in any single consignment. Not more than one (1) package prepared in accordance with Section II of PI 965 and PI 968 may be placed into an overpack.
4. Packages prepared according to Section II of PI 965 and PI 968 must be offered to the operator separately from other cargo and must not be loaded into a unit load device (ULD) before being offered to the operator.

SECTION16 OTHER INFORMATION

Date:

2020-12-16

Department:

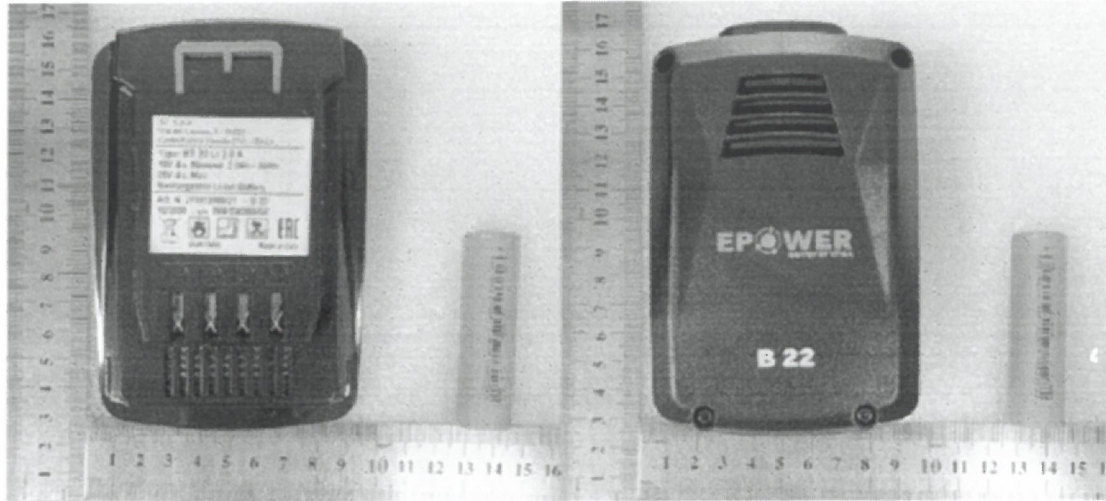
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Revision:

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Other Information:

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 Via del Lavoro, 6 - 31033
 Castelfranco Veneto (TV) - ITALY

Type: BT 20 Li 2.0 A
 18V d.c. Nominal 2.0Ah - 36Wh
 20V d.c. Max
 Rechargeable Li-ion Battery

Art. N. 271012000/21 - B 22
 10/2020 - s/n 20IA1CAC000454



Li-ion



5INR19/66



Made in Italy

