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Material Safety Datasheet

Report #: 01022023A

Product Name: 2600mAh KBS Power Solutions INR18650E IS-2600mAh

Model: INR18650E IS-2600mAh (3.7V 2600mAh 9.62Wh)

Manufacturer: KBS Power Solutions

Report Date: January 2, 2023



SECTION 1 IDENTIFICATION OF PRODUCT	
Product Name	2600mAh KBS Power Solutions INR18650E IS-2600mAh
Product Model	INR18650E IS-2600mAh (3.7V 2600mAh 9.62Wh)
Manufacturer	KBS Power Solutions
Manufacturer Address	380 Stewart Road, Hanover Township, PA 18706, USA

SECTION 2 Composition/Information on Ingredients		
Hazardous Ingredient (Chemical Name)	Concentration or concentration range (%)	CAS Number
Lithium Manganese Nickel and Cobalt Oxide	36	346417-97-8
Polyvinylidene Flouride (PVDF)	0.44	24937-79-9
Aluminum	2.97	7429-90-5
Graphite	18.68	7782-42-5
Styrene-Butadiene Rubber (SBR)	0.88	9003-55-8
Sodium Carboxymethyl Cellulose	0.21	9004-32-4
Copper	7.37	7440-50-8
Iron	15.84	7439-89-6
Nickel	0.76	7440-02-0
Lithium Hexafluorophosphate	1.83	21324-40-3
Polyethylene (PE)	2.15	9002-88-4
Polypropylene (PP)	2.56	9003-07-0
Ethylene Carbonate (EC)	3.12	96-49-1
Dimethyl Carbonate (DMC)	7.19	616-38-6

SECTION 3 Hazards Identification	
Explosive Risk	This item is not considered explosive dangerous goods
Flammable Risk	This item is not considered flammable material
Oxidation Risk	This item is not considered an oxidation risk
Toxic Risk	This item is not considered toxic dangerous goods
Radioactive Risk	This item is not considered radioactive dangerous goods
Mordant Risk	This item is not considered corrosive dangerous goods
Other Risk	This item contains 1 single Cylindrical Lithim Ion rechargeable cell, watt hour rating – 9.62Wh

SECTION 4 First Aid Measures

All chemicals within are sealed within batteries. In event of exposure to battery damage, leakage or exhaust, follow first aid measures.

After Contact with Eyes: Flush eyes with water for at least 15 minutes, occasionally lifting eyelids. Seek medical attention.

After Skin Contact: Remove contaminated articles of clothing and rinse skin with water for 15 minutes. Seek medical attention.

After Inhalation: If inhaled, quickly move to fresh air. Seek immediate medical attention.

SECTION 5 Fire Fighting Measures

Characteristics of Hazard: Toxic fumes, gases or vapors make emit during/after burning

Hazarouds Combusions Products: CO, CO₂, HF, Phosphorous FLouride

Fire-Extinguishing Methods and Extinguishing Media: Copius amounts of cold water are an effective extinguishing medium for lithium batteries. Do not use warm or hot water. Do not use Halon type extinguishing powered.

May use dry powder, sand, earth.

Attention in Fire-Extinguishing: Fire fighters should wear anti-gas respirator and full fire-fighting gear.

SECTION 6 Accidental Release Measures

When leakage of batteries occurs, liquid can be absorbed with sands, earth or other inert substance. The contaminated area should be well ventilated.

Damaged batteries that are neither hot, nor showing signs of burning, should be placed in sealed plastic bag or plastic container.

SECTION 7 Handling and Storage

Precautions for Safe Handling: Consumption of food or beverage should be avoided in work areas. Wash hands with soap and water before eating, drinking after handling product. Ground any storage containers to prevent static accumulation and discharge.

Information about fire and explosion protection: Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperature. Do not short circuit or install in reverse polarity orientation.

Conditions for safe storage: Store in cool, dry, well ventilated place. Keep away from heat and prolonged exposure to direct sunlight.

SECTION 8 Exposure Controls/Personal Protection

Maximum allowable concentration: Undefined

Engineering Controls: No engineering controls required for handling batteries that are in undamaged condition. Personal protective equipment for damaged batteries should include chemical resistant gloves and safety glasses.

SECTION 9 Physical and Chemical Properties	
Information related to basic physical and chemical properties	
Appearance	White
Form	Generally Cylindrical
Odour	Odorless

SECTION 10 Stability and Reactivity

Stability: Stable under normal temperatures and pressures

Incompatibility: Oxidizing agents

Conditions to avoid: Heat and open flame, short circuit, water.

Hazardous polymerization: Will not occur

Decomposition Products: CO, CO₂, HF, Phosphorus Fluoride.

SECTION 11 Toxicological Information

Signs & Symptoms: None, unless battery ruptures

In the event of exposure to internal contents, vapor/fumes may be irritating to eyes and skin. See Section 4 – First Aid Measures

Inhalation: Lung irritant

Skin Contact: Skin irritant

Eye Contact: Eye irritant

Ingestion: Poisonous if swallowed.

In the event of exposure to internal contents, moderate to severe irritation, burning and dryness to skin and eyes may occur. Inhalation of internal vapors or ingestion can be harmful to internal organs.

SECTION 12 Ecological Information

Ecological Toxicity: N/A

Biodegradability: N/A

Non-biodegradability: N/A

SECTION 13 Disposal

Disposal Method: Recycle or dispose of in accordance with government, state and local regulations

Disposal Warning: Batteries cannot be treated as regular trash. Do not dispose of in residential or commercial trash disposal methods. Do not throw in fire. Do not attempt to disassemble or crush. Always recycle/dispose of lithium ion batteries or products containing lithium ion batteries through government approved methods.

SECTION 14 Transportation	
UN No.	UN3480 UN3481
Proper Shipping Name	UN3480 Lithium Ion Batteries UN3481 Lithium Ion Batteries Packed with Equipment UN3481 Lithium Ion Batteries Contained in Equipment
Label	UN3480 Method: UN3480 Label, Cargo Aircraft Only, Class UN3481 Method: UN3481 Label

The dangerous goods regulation requires that each battery design be subject to tests contained in United Nations “Manual of Test and Criteria” (ST/SG/AC.10/11/Rev 7) Section 38.3.

Issued Relevant Reports:

Battery Cell INR18650E-IS-2600mAh-3.7V-9.62Wh Report # S03A22020385U00101

Battery Pack 3K-2263 (3.7V 2600mAh 9.62Wh) Report # UN2022-2398-1 & UN2022-2398-2

The packaging of the battery shall comply with the requirements of Packing Instruction 965/966/967 of IATA DGR 63rd Edition For Transportation.

The packaging of the battery shall comply with the requirements of 188 IMDG-Code (40-20) or The Recommendations On the Transport of Dangerous Goods – Model Regulations (21st)

SECTION 15 Regulation Information

Regulatory Information: Recommendations on the transport of dangerous goods – model Regulations 21st, IATA dangerous goods regulation 63rd, IMDG Code (40-20), European Agreement concerning the International Carriage of Dangerous Goods by Road (2021), Regulations concerning the International Carriage of Dangerous Goods by Rail (2021).

SECTION 16 Other Information

Information within this report only applies to models/items listed, and does not apply to any other KBS Power Solutions items.

Photo Samples

