SDS Report

Sample Description	BOOSTED V2 Battery Packs, B2SR (39.6V, 2.5Ah, 99Wh)
Applicant	Tianjin Synergy Groups Co.,Ltd

Pony Testing International Group
www.ponytest.com

No.:BLINS7US47034716
Code: qd61mdno

Safety Data Sheet (SDS)

Reference to: ISO 11014:2009

BOOSTED V2 Battery Packs, B2SR (39.6V, 2.5Ah, 99Wh)

Section 1: Identification

Chemical Product name: BOOSTED V2 Battery Packs, B2SR (39.6V, 2.5Ah, 99Wh)
Alternative names: BOOSTED
Company product code: 8711901090
Recommended use: Battery for skateboard
Restrictions on use: N/A
Supplier name: Tianjin Synergy Groups Co.,Ltd
Address: No.3, Haineng Science Park, Hongcheng Road, Huaming Town, Dongli District, Tianjin City, 300300, P.R.China
Phone number: +86 22-58209365
FAX: +86 22-58681865
E-mail: 2881347857@qq.com
Emergency phone number: +86 22-58209829

Section 2: Hazard identification

Classification of the substance: Not classified.
GHS label elements: None.
Other Hazards:
Physical and chemical hazards: Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature (>150℃ (302℉)), when damaged or abused (e.g., mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect. Burning batteries can ignite other batteries in close proximity.

Human health hazards: The product should not present a health hazard when used under reasonable conditions. If contact with battery electrolyte may be irritating to skin, eyes and mucous membranes. Fire will produce irritating, corrosive and/or toxic gases. Fumes may cause dizziness or suffocation.

Environmental hazards: If the battery is discarded into the environment, the harmful contents inside may be dangerous.

Section 3: Composition/information on ingredients

Mixture

Ingredient	CAS No.	Composition (% by weight)	EC#
Lithium iron phosphate	15365-14-7	26.38	604-917-2
Aluminium	7429-90-5	10-20	231-072-3
Graphite	7782-42-5	10-15	231-955-3
Copper	7440-50-8	10-15	231-159-6
poly(propene)	9003-07-0	10-15	618-352-4
ETHENE, HOMOPOLYMER	9002-88-4		618-339-3
NYLON 6/66	24993-04-2	5-10	607-478-5
Nickel	7440-02-0	1-3	231-111-4
Lithium hexafluorophosphate(1-)	21324-40-3	2.9	244-334-7
Ethylene carbonate	96-49-1		202-510-0
Propylene carbonate	108-32-7		203-572-1
Dimethyl carbonate	616-38-6		210-478-4
Carbonic acid, ethyl methyl ester	623-53-0		613-014-2
Vinylene carbonate	872-36-6		212-825-5

Section 4: First-aid measures

Caution! No effect under routine handling and use. If exposure to internal materials within batteries due to damaged outer metal casing, the following actions are recommended.

Description of first aid measures

Inhalation: If inhaled, remove from exposure and move to fresh air immediately. Rinse mouth and nose with water. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. Get medical aid immediately.

Skin: In case of contact, remove contaminated clothing and shoes immediately and flush skin with plenty of water and soap for at least 15 minutes. Wash clothing and shoes before reuse. Get medical aid immediately if symptoms occur.

Eyes: In case of contact with eyes, rinse immediately with plenty of water during at least 20 minutes, and lift the upper and lower eyelids occasionally. Check for and remove contact lenses if easily possible. DO NOT rub eyes with hand. Get medical aid immediately.

Ingestion: If swallowed, do not induce vomiting. If the injured is fully conscious: wash mouth out with water, then give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Personal protective equipment for first-aid responders: Use proper personal protective equipment as indicated in Section 8.

Most important symptoms/effects, acute and delayed: See Section 11 for more information.

Indication of immediate medical attention and special treatment needed: Treat symptomatically and supportively.

Section 5: Fire-fighting measures

Suitable extinguishing media: DRY chemical, CO_2, water spray or regular foam.

Unsuitable extinguishing media: No data available.

Specific Hazards arising from the chemical: Battery can be overheated by an external source or by internal shorting and develop metal hydroxide mist. Toxic vapor may release in case of fire. Thermal shock may cause battery case to crack open. Containers may explode when heated. Firefighting water runoff and dilution water may be toxic and corrosive and may cause adverse environmental impacts. On some bad using conditions (e.g., high over charge, inverse charge, external short circuit) and in case of a bad functioning, some electrolyte can be removed from the battery by the security vent. Exposure to the ingredients contained within the battery pack could be harmful under some circumstances.

Specific protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Move containers from fire area if this can be done without risk. Prevent run off from fire control dilution from entering streams or drinking water supply.

Section 6: Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Review Section 5 and Section 7 sections before proceeding with clean-up. Use proper personal protective equipment as indicated in Section 8. Appropriate ventilation. If the electrolyte leaks or spills, do not touch or walk through electrolyte.

Protective equipment: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Emergency procedures: Do not touch or walk through spilled material. Stop leak if you can do it without risk. Do not direct water at spill or source of leak.

Environmental precautions: Prevent entry into waterways, sewers, basements, or confined areas.

Methods and materials for containment and cleaning up: Avoid allowing the spilled material to get wet or using water to clean up spillages or residues, unless the quantity remaining is very small. Remove all sources of ignition or heat. Ensure adequate ventilation. Carefully collect undamaged batteries in a clean, dry and appropriate container for reuse or disposal. If the electrolyte leaks or spills, collect all released material in an appropriate container before proper disposal.

Section 7: Handling and storage

Precautions for safe handling: Ensure good local exhaust ventilation. Handle and open container with care. Keep away from incompatible substances (see section 10), any sources of ignition or heat (e.g. open flames, hot surfaces), foodstuffs, beverages and foods. Avoid contact with eyes and skin. The work area should be equipped with the corresponding species and quantity of fire-fighting equipments and emergency equipments.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed. Store closed containers in a cool, dry, well-ventilated area. Keep away from incompatible substances (see section 10), any sources of ignition or heat (e.g. open flames, hot surfaces), feedstuffs, beverages and foods. Avoid physical damage to containers. The storage area should be equipped with the corresponding species and quantity of fire-fighting equipments and emergency equipment.

Section 8: Exposure controls/personal protection

Occupational exposure limits:

CAS No.	ACGIH	NIOSH	OSHA
15365-14-7	N/A	N/A	N/A
7429-90-5	TLV-TWA 10 mg/m^3 (metal dust)	REL-TWA 10 mg/m^3 (total) REL-TWA 5 mg/m^3 (resp)	PEL-TWA 15 mg/m^3 (total) PEL-TWA 5 mg/m^3 (resp)
7782-42-5	TLV-TWA 2 mg/m^3 (resp)	REL-TWA2.5 (resp) IDLH: 1250	PEL-TWA 15 mppcf
7440-50-8	TLV-TWA 0.2 mg/m^3 (Fume) TLV- TWA 1 mg/m^3 (Dusts & mists as Cu)	REL-TWA 1 mg/m^3 (as Cu) IDLH：100 mg/m^3 (as Cu)	PEL-TWA 1 mg/m^3 (as Cu)
9003-07-0	N/A	N/A	N/A
9002-88-4	N/A	N/A	N/A
24993-04-2	N/A	N/A	N/A
7440-02-0	TLV-TWA 1.5 mg/m^3 (inhalable)	REL-Ca TWA 0.015 mg/m^3 IDLH-Ca 10 mg/m^3 (as Ni)	PEL-TWA 1 mg/m^3
21324-40-3	N/A	N/A	N/A
96-49-1	N/A	N/A	N/A

108-32-7	N/A	N/A	N/A
616-38-6	N/A	N/A	N/A
623-53-0	N/A	N/A	N/A
872-36-6	N/A	N/A	N/A

· Appropriate engineering controls: General room ventilation is sufficient during normal use and handing. Do not install these batteries in sealed, unventilated areas. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

· Personal protective equipment:

- **Ø Eyes Protection: No special requirement under normal conditions. Use appropriate safety glasses if there is a potential for exposure to dust.**
- **Ø Skin and Body Protection: No special requirement under normal conditions. It is recommended to wear appropriate protective clothing when the battery case is broken.**
- **Ø Respiratory Protection: No special requirement under normal conditions. It is recommended to wear appropriate protective respiratory masks when work environment needed. A full face positive pressure supplied-air respirator or a self contained breathing apparatus should be used when large spilled or fire. If the respirator is the sole means of protection, use a full-face supplied air respirator.**
- **Ø Hand Protection: No special requirement under normal conditions. Wear heat resistant gloves for the handling of heated materials.**
- **Ø Thermal hazards: No thermal hazards under normal conditions.**

Section 9: Physical and chemical properties

Physical State: Irregular cuboid battery（274mm*192mm*37mm）
Colour: Black
Odour: Odorless.
Odor threshold: N/A
pH: N/A
Melting point/freezing point: N/A

Initial boiling point and boiling range: N/A
Flash Point: N/A
Evaporation rate: N/A
Upper/lower flammability or explosive limits: N/A
Vapour pressure: N/A
Vapour density: N/A
Relative density: N/A
***Density: 2.2 g/cm^3**
***Solubility in Water: Insoluble in water**
Partition coefficient: n-octanol/water: N/A
Auto-ignition temperature: N/A
Decomposition temperature: N/A
Viscosity: N/A
Explosive properties: N/A
Oxidising properties: N/A
Flammability (solid, gas): N/A
Other：39.6V, 2.5Ah, 99Wh
***Note: The symbol '*' means the data is applied by Applicant.**

Section 10: Stability and reactivity

Reactivity: No reactivity under normal storage and handling conditions..
Chemical stability: Stable under normal storage and handling conditions.
Possibility of hazardous reactions: When a battery cell is exposed to an external short-circuit, crushed, modification, high temperature, open flames, it will be the cause of heat generation and ignition.
Conditions to Avoid: Exposed to an external short-circuit, crushed, modification, high temperature, open flames, incompatible materials, direct sunlight and high humidity.
Incompatibilities materials: Strong oxidants, strong acids, strong bases.
Hazardous decomposition products: In case of a fire or high temperature, metal oxides and irritating/harmful fumes/smoke may be generated.

Section 11 – Toxicological information

Acute toxicity:

CAS#	LC50/LD50
15365-14-7	No data available
7429-90-5	No data available
7782-42-5	No data available
7440-50-8	No data available
9003-07-0	No data available
9002-88-4	LD50 Rat (Sprague-Dawley CD) (201-223g) oral >2000 mg/kg body weight
24993-04-2	No data available
7440-02-0	LD50 Rat oral >=5,000mg/kg
21324-40-3	No data available
96-49-1	LD50 Rat oral 10 g/kg
108-32-7	LD50 Rat oral >= 29000 mg/kg
616-38-6	LD50 Rat oral 6400 - 12800 mg/kg
623-53-0	No data available
872-36-6	No data available

Skin corrosion/irritation: No data available.

Serious eye damage/irritation: No data available.

Respiratory or Skin sensitization: No data available.

Germ Cell mutagenicity: No data available.

Carcinogenicity:

CAS#9003-07-0:

- **IARC: Group 3-Not classifiable as to carcinogenicity to humans.**
- **Not listed as carcinogens by ACGIH, NTP, or CA Prop 65.**

CAS#9002-88-4:

- **IARC: Group 3-Not classifiable as to carcinogenicity to humans.**
- **Not listed as carcinogens by ACGIH, NTP, CA Prop 65.**

CAS# 7440-02-0

- **CA Prop 65: Carcinogen; initial date 10/1/89.**
- **Not listed as carcinogens by ACGIH, IARC, NTP.**

Other compositions in this product are not listed as carcinogens by ACGIH, IARC, NTP, or CA Prop 65.

Reproductive toxicity:

CAS#616-38-6:

- **Pregnant female mice were exposed by inhalation to 0, 300, 1000, or 3000 ppm during gestational days 6 - 15. At the dose of 3000 ppm, reduced maternal body weight gain, food consumption as well as increased postimplantation loss due to increased resorption and increased number of stunted fetuses were observed (HSDB (2003)). Furthermore, at the same dose, total incidences of fetal malformations including cleft palate, microtia, and multiple skull bone malformations were significantly increased (HSDB (2003))**

Specific target organ toxicity-Single exposure:

CAS#7440-50-8:

- **May cause respiratory irritation (respiratory tract irritation)**

CAS#616-38-6:

- **The association between the doses and signs after oral administration to rats is not clear, but since it is described that symptoms were weakness, ataxia with gasping, and unconsciouness (PATTY (5th, 2001)), effects on the nervous system are suspected. And as signs after inhalation exposure at 8000 ppm above the guidance value of Category 2 for two hours (conversion, 20.8 mg/L/4h), gasping, loss of coordination, and pulmonary edema were seen and all the rats died in a period of two hours (PATTY (5th, 2001)).**

Specific target organ toxicity-Repeated exposure:

CAS#7429-90-5:

- **Pulmonary fibrosis is observed to the human in long-term exposure (EHC 194 (1997), PATTY (4th, 1994), and ATSDR (1999)), lungs were judged as target organ. Although there was description of recognition testes grade point reduction of humans in the same source, any**

definitive conclusions were not obtained, and it was thought that the data was insufficient for judging of significant neurotoxicity.

CAS#7440-50-8:

- **Cause damage to organs through prolonged or repeated exposure (liver)**

Aspiration hazard: No data available.

Information on the likely routes of exposure:

- **Ø Inhalation: No health effects are expected when used under reasonable conditions. If inhaled the dust generated in the processing may cause respiratory irritation.**
- **Ø Skin: No health effects are expected when used under reasonable conditions. Repeated or prolonged exposure may cause skin irritation.**
- **Ø Eye: No health effects are expected when used under reasonable conditions. If contacted with the dust generated in the processing may cause irritation**
- **Ø Ingestion: Ingestion of this product is unlikely. If ingest the chips or debris generated in the processing may cause partially or completely intestinal blockage.**

Section 12 - Ecological information

Toxicity:

CAS# 7429-90-5

- **LC50-Oncorhynchus mykiss (Rainbow trout)-120 ug/L-96 h**

Persistence and degradability:

CAS# 7429-90-5

- **May cause long lasting harmful effects to aquatic life**

CAS#7440-50-8

- **May cause long lasting harmful effects to aquatic life**

CAS#616-38-6

- **May easily biodegradable.**

Bioaccumulative Potential:

CAS#96-49-1:

- The potential for bioconcentration in aquatic organisms is low.

CAS#108-32-7:

- The potential for bioconcentration in aquatic organisms is low.

CAS#616-38-6

- BCF=3.2, which suggests the potential for bioconcentration in aquatic organisms is low(SRC)

Mobility in Soil:

CAS#96-49-1:

- Expected to have very high mobility in soil.

CAS#108-32-7:

- Expected to have very high mobility in soil.

CAS#616-38-6

- Expected to have very high mobility in soil.

Other adverse effects: No data available.

Section 13 - Disposal considerations

Disposal methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations. The generation of waste should be avoided or minimized wherever possible. Contaminated packaging material should be treated equivalent to residual chemical. Clean packaging material should be subjected to waste management schemes (recovery recycling, reuse) according to local legislation. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.Refer to Section 7-Handling and Storage and Section 8-Exposure Controls/Personal Protection for additional handling information and protection of employees.

Section 14 - Transport information

Air transport (ICAO-IATA / DGR 58th)
UN Number: UN3480
UN Proper Shipping Name: Lithium ion batteries
Transport hazard class: 9
Subsidiary risk: N/A
Packaging group: N/A

Packaging Sign:

Other Information: The UN38.3 test passed, the report: Pony Testing Group Shanghai Co., Ltd., Report No.: BDICQEFZ43370521b.
Special precautions for user:
Special provisions: A88, A99, A154, A164, A183, A201, A206, A331.
Cargo Only Packing Instructions: PI965
Cargo Only Maximum Qty / Pack: PI965
Passenger and Cargo Packing Instructions: Forbidden
Passenger and Cargo Maximum Qty / Pack: Forbidden
Passenger and Cargo Limited Quantity Packing Instructions: Forbidden
Passenger and Cargo Limited Maximum Qty / Pack: Forbidden
Marine Pollutant (Y/N): No.

Sea transport (IMDG CODE 37-14 edition)
UN Number: UN3480
UN Proper Shipping Name: LITHIUM ION BATTERIES
Transport hazard class: 9
Subsidiary risk: N/A
Packaging group: N/A

Packaging Sign:

Other Information: The UN38.3 test passed, the report: Pony Testing Group Shanghai Co., Ltd., Report No.: BDICQEFZ43370521b.

Special precautions for user:
Special provisions: 188, 230, 310, 348, 376, 377.
Marine Pollutant (Y/N): No

Section 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

CAS No.	TSCA	DSL/NDSL	EINECS/ ELINCS/ NLP	IECSC
15365-14-7	Listed	Listed in DSL	Listed	Unlisted
7429-90-5	Listed	Listed in DSL	Listed	Listed
7782-42-5	Listed	Listed in DSL	Listed	Listed
7440-50-8	Listed	Listed in DSL	Listed	Listed
9003-07-0	Listed	Listed in DSL	Listed	Listed
9002-88-4	Listed	Listed in DSL	Listed	Listed
24993-04-2	Listed	Listed in DSL	Listed	Listed
7440-02-0	Listed	Listed in DSL	Listed	Listed
21324-40-3	Listed	Listed in NDSL	Listed	Listed
96-49-1	Listed	Listed in DSL	Listed	Listed
108-32-7	Listed	Listed in DSL	Listed	Listed
616-38-6	Listed	Listed in DSL	Listed	Listed
623-53-0	Listed	Listed in NDSL	Listed	Listed
872-36-6	Listed	Listed in NDSL	Listed	Listed

Reference laws and regulations:

- **Safety data sheet for chemical products - Content and order of sections (ISO11014: 2009)**
- **Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284. AN/905 2017-2018 Edition)**

- **International Air Transport Association Dangerous Goods Regulations (IATA DGR) (58th Edition)**
- **International Maritime Dangerous Goods Rules (IMDG Code) (37-14 edition)**
- **Globally Harmonized System of Classification and labeling of Chemicals (GHS) (ST/SG/AC.10/30/Rev.6)**
- **Toxic Substances Control Act (TSCA)**
- **California Proposition 65**
- **Inventory of Existing Chemical Substances in China (IECSC)**
- **Canadian Environmental Protection Act (CEPA)**
- **European Inventory of Existing Commercial chemical Substances (EINECS)**
- **European List of Notified Chemical Substances (ELINCS)**

Section 16 – Other information

Issue Time: 2017-02-10
Issue Department: Technical department
Modification record: /

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Other Information:
CAS: (Chemical Abstracts Service);
EC: (European Commission);
ACGIH: (American Conference of Governmental Industrial Hygienists);
NIOSH: (US National Institute for Occupational Safety and Health);
OSHA: (US Occupational Safety and Health);
TLV: (Threshold Limit Value)

TWA: (Time Weighted Average);
STEL: (Short Term Exposure Limit);
PEL: (Permissible Exposure Level);
REL: (Recommended Exposure Limit);
PC-STEL: (Permissible concentration-time weighted average);
PC-TWA: (Permissible concentration-short time exposure limit);
LC50: (Lethal concentration, 50 percent kill);
LD50: (Lethal dose, 50 percent kill);
IARC: (International Agency for Research on Cancer);
EC50: (Median effective concentration);
BCF: (Bioconcentration Factor);
BOD: (Biochemical oxygen demand);
NOEC: (No observed effect concentration);
NTP: (US National Toxicology Program);
RTECS: (Registry of Toxic Effects of Chemical Substances);
IATA: (International Air Transport Association);
IMDG: (International Maritime Dangerous Goods);
TDG: (Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations);
TOC: (Total Organic Carbon);
TSCA: (Toxic Substances Control Act of USA);
DSL: (the Domestic Substances List of Canada);
NDSL: (the Non-domestic Substances List of Canada)

*****End of report *****