

MATERIAL SAFETY DATA SHEET[No.20130712]

Model : BM4S3P

Li-ion Rechargeable Battery Pack

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

CASING: 4.7%

CHI MEI Polylac® PA-765 PA-765A PA-765AF PA-765B PA-765BF

CELL: 50.7%

Sanyo Li-ion Battery 18650 (Equivalent Lithium content: 0.60(g/Ah))

MANUFACTURER

CASING:

Chi Mei Corporation

59-1, San Chia, Jen Te Village, Tainan County, Taiwan, ROC.

Telephone: +886-6-2663000 Fax: +886-6-2667981

CELL:

COMPANY NAME: SANYO ELECTRIC. CO., LTD.

COMPANY ADDRESS: 28/F Full Link Plaza No. 18 Chaoyangmenwai Ave. Beijing P.R.C.
Post Code 100020 China

TELEPHONE NUMBER: 0086 10 65881501/2/3

FAX: 0086 10 65881505

E-MAIL: bjsanyo@sanyo.com

2. COMPOSITION INFORMATION

CASING:

Chemical Name	A	Tetrabromobisphenol A	Antimony Oxide
Content	> 70%	< 13%	< 6 %
Formula	(C ₃ H ₃ N, C ₄ H ₆ , C ₈ H ₈) n	C ₁₅ Br ₄ O ₂ H ₁₂	Sb ₂ O ₃
CAS No. (TSCA No.)	9003-56-9	79-94-7	1309-64-4
Impurities contributing to Hazard	None		
	A: Acrylonitrile-Butadiene-Styrene Copolymer		

CELL:

COMPONENTS

PERCENT OF TOTAL WEIGHT (%) CAS NUMBER

ALUMINUM	2-10	
COPPER	5-15	7440-50-8
CARBON	10-30	7440-44-0
POLYVINYLIDENE FLUORIDE (PVDF)	<5	24937-79-9
LITHIUM COBALT OXIDE	25-50	
Li	2-3	
ALUMINUM PACKAGING FOIL	5-15	7429-90-5
ELECTROLYTE	10-20	
NICKEL	0.5-5	

3. HAZARDS IDENTIFICATION

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PRIMARY ROUTES OF ENTRY

Skin contact, Skin absorption, Eye contact, Inhalation, and Ingestion: NO

SYMPTOMS OF EXPOSURE

Skin contact

No effect under routine handling and use.

Skin absorption

No effect under routine handling and use.

Eye contact

No effect under routine handling and use.

Inhalation

No effect under routine handling and use.

REPORTED AS CARCINOGEN

Not applicable

4. FIRST AID MEASURES

INHALATION, EYE CONTACT, and SKIN CONTACT: Not a health hazard.

INGESTION

If swallowed, obtain medical attention immediately.

If exposure to internal materials within cell due to damaged outer casing, the following actions are recommended.

INHALATION

Leave area immediately and seek medical attention.

EYE CONTACT

Rinse eyes with water for 15 minutes and seek medical attention.

SKIN CONTACT

Wash area thoroughly with soap and water and seek medical attention.

INGESTION

Drink milk/water and induce vomiting; seek medical attention.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD

This product is not flammable but internal organic material will burn if this product is incinerated. Combustion products include, but are not limited to hydrogen fluoride, carbon monoxide and carbon dioxide.

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EXTINGUISHING MEDIA

Use extinguishing media suitable for the materials that are burning.

SPECIAL FIREFIGHTING INSTRUCTIONS

If possible, remove this product from fire fighting area. If heated above 125°C, this product can explode/vent.

FIREFIGHTING EQUIPMENT

Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

6. ACCIDENTAL RELEASE MEASURES

ON LAND

Place material into suitable containers and call local fire/police department.

IN WATER

If possible, remove from water and call local fire/police department.

7. HANDLING AND STORAGE

HANDLING

No special protective clothing required for handling this product.

STORAGE

Store in a cool, dry place.

8. Exposure controls/personal protection

ENGINEERING CONTROLS

Keep away from heat and open flame. Store in a cool dry place.

PERSONAL PROTECTION

Respirator: Not required during normal operations. SCBA required in the event of a fire.

Eye/face protection: Not required beyond safety practices of employer.

Gloves: Not required for handling of this product.

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Foot protection: Steel toed shoes recommended for large container handling.

9. Physical and chemical properties

State	Solid
Odor	N/A
PH	N/A
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

10. STABILITY AND REACTIVITY**REACTIVITY**

None

INCOMPATIBILITIES

None during normal operation. Avoid exposure to heat, open flame, and corrosives.

HAZARDOUS DECOMPOSITION PRODUCTS

None during normal operating conditions. If this product is opened, hydrogen fluoride and carbon monoxide may be released.

CONDITIONS TO AVOID

Avoid exposure to heat and open flame. Do not puncture, crush or incinerate.

11. Toxicological information

This product does not elicit toxicological properties during routine handling and use.

CASING:

Irritation Tetrabromobisphenol A: Slightly irritant to eyes and skin.

Acrylonitrile-butadiene-styrene copolymer: Fumes or vapors generated from decomposing resins may be irritant to eyes.

Acute oral toxicity (LD50) Tetrabromobisphenol A: Weak

Acrylonitrile-butadiene-styrene copolymer: Not determined

Mutagenicity Acrylonitrile-butadiene-styrene copolymer: Not determined

Cell:

The materials contained in cell/battery are described in paragraph 2.; it does not elicit any toxicological properties during routine handling and use.

Sanyo Batteries are exempted from these regulations since they meet all UN Testing requirements and contain no more than 8 grams of equivalent lithium content.**Example:** A **18650** cell in a DVD battery pack may have a rated capacity of 2.75 ampere-hours.Applying a conversion factor of 0.6, a battery pack with 2 of these cells contains 3.3 grams of equivalent lithium content. ($2.75 \times 0.6 \times 2 = 3.3$ grams of equivalent lithium content)

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12. Ecological information

Some materials within this product are bioaccumulative. Under normal conditions, these materials are contained and pose no risk to persons or the surrounding environment.

13. Disposal considerations

CALIFORNIA REGULATED DEBRIS

RCRA Waste Code: Nonregulated

Dispose of according to all federal, state, and local regulations.

14. Transport information

The consignment complies with the current edition -54th 2013 of the IATA regulation:

- 1) Part 1 of packing instruction PI965(for Lithium Ion batteries(UN3480))
- 2) UN manual of Tests and criteria, Part III,sub-section 38.3(withstanding a 1.2m drop test), and meets all requirements under UN Manual of Tests and Criteria Part III,subsection 3480.
- 3) With content of lithium less than 20Wh per cell or 100Wh per battery.

The consignment can be shipped as “Not Restricted” in accordance with the current edition of IATA-DGR-2013.

- A) This consignment does not contain any recalled and/or defective batteries.
- B) This consignment have been packed in comply with part 1 of PI965.
- C) Handle with care, Flammability hazard exists if the package is damaged.
- D) In the event of the package is found damaged, please follow the special procedures, if package is damaged, batteries must be protected so as to prevent short circuit
- E) For any additional information, please contact 86-769-86249015

No.	ITEMS	RESULT	REMARKS
1	Altitude simulation	Pass	Test 1 to 5 must be conducted in Sequence on the same cell or battery
2	Thermal test	Pass	
3	Vibration	Pass	
4	Shock	Pass	
5	External short circuit	Pass	

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6	Impact	Pass	
7	Overcharge	Pass	Only battery do need this test item
8	Forced Discharge	Pass	

The product is not classified as dangerous under the edition of the ICAO & IATA dangerous goods regulations and according PI965 all applicable Carriers. The product is safe for sea/air transportation and not regulated by ICAO & IATA DGR.

15. Regulatory information

OSHA hazard communication standard (29 CFR 1910.1200)

☐ Hazardous☒ Non-hazardous
