

Declaration

BARTEC GmbH · Max-Eyth-Straße 16 · 97980 Bad Mergentheim · Germany

BARTEC

Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Phone: +49 7931 597-0

Fax: +49 7931 597-119

info@bartec.de

www.bartec-group.com

Herewith we, the BARTEC GmbH, declare

that we use as battery pack of the MC 75Ax^{ex} series the model B7-A2Z0-0007 and B7-A2Z0-0008 Lithium Ion from TWS Electronics Limited, Guangzhou, China as raw material.

Product:

Battery pack of the MC 75Ax^{ex} series type B7-A27x-xxxx/xxxxxxxx

Type number:

B7-A2Z0-0007 Lithium Ionen Battery 3.7 V / 3600 mAh

B7-A2Z0-0008 Lithium Ionen Battery 3.7 V / 4800 mAh

Related to this declaration is following documentation:

- Material Safety Data Sheet (File S/N TWS-IMS-QE-201400078, Issue Date: 2014-2-21)
- Material Safety Data Sheet (File S/N TWS-IMS-QE-201400227, Issue Date: 2014-1-3)
- No Mercury Certificate (Date: 2014-12-16) – for battery type B7-A2Z0-0007
- No Mercury Certificate (Date: 2014-12-16) – for battery type B7-A2Z0-0008

Bad Mergentheim, January, 13th 2015

BARTEC GmbH

Yours sincerely,

i. A.


Benedikt Eckert

Product Manager Mobile Computer

BARTEC GmbH

Max-Eyth-Straße 16
97980 Bad Mergentheim

District court
Amtsgericht Ulm
HRB 723429

Bank details

Commerzbank
Bank Code 790 400 47
Account 6 900 898
SWIFT/BIC
COBADEFF790
IBAN
DE40 7904 0047 0690 0898 00

Sparkasse Tauberfranken

Bank code 673 525 65
Account 22 699
SWIFT/BIC
SOLA DE S1 TBB
IBAN
DE97 6735 2565 0000 0226 99

HypoVereinsbank Würzburg

Bank code 790 200 76
Account 14 45 332
SWIFT/BIC
HYVEDEMM 455
IBAN
DE02 7902 0076 0001 4453 32

Management Board

Dr. Ralf Köster (Vors.)
Dr. Anjou Appelt
Heiko Laubheimer

MATERIAL SAFETY DATA SHEET

File S/N: TWS-IMS-QE-201400078

Issue Date: 2014-2-21

We would like to inform our customers that these batteries are exempt articles and are not subject to the OSHA Hazard requirement, or to the Canadian WHMIS requirements and the sheets are supplied as a service to our customer.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Rechargeable Li-ion Battery Pack
Model	B7-A2Z0-0007
Rating	3,7V 3600mAh 13,3Wh
Company:	Guangzhou TWS Electronics Limited
Address:	No.39 Nanyunsan Road, Science Park, Hi-Tech Industrial Development Zone Guangzhou,P.R.China,510663
Manufacturer:	Guangzhou TWS Electronics Limited
Address:	No.39 Nanyunsan Road, Science Park, Hi-Tech Industrial Development Zone Guangzhou, P.R. China. 510663
Telephone no.	+ 86-20-22215111
Fax no.	+86-20-22213268

2. INGREDIENTS

Battery Cell

Components	Content (wt%)	CAS #
Lithium Cobalt Dioxide (LiCoO2)	less than 38wt%	12190-79
Lithium Hexafluorophosphate (LiPF6)	less than 3wt%	21324-40-38
Ethylene Carbonate (C3H4O3)	less than 6wt%	96-49-1
Chain Carbonate (-)	less than 8wt%	
Graphite (C)	less than 20wt%	7782-42-5
Lead (Pb)	less than 0.1wt%(1000ppm)	
Mercury (Hg)	less than 0.0005wt%(5ppm)	

Note: The others 25% includes the below material
 AL(Positive Base Film,Cap,Can,Tab)
 Cu(Negative Base Film)
 Ni(Tab,Terminal)
 Fe(Terminal)
 Resin(PP,PE,PET)(Separator,Plastic Parts,Insulator)

Circuit Module

HAZARDOUS INGREDIENTS	%	CAS NUMBER
-----------------------	---	------------

Lead	<0.1	7439-92-1
Mercury	0	7439-97-6
Chromium	0	7440-47-3
Cadmium	0	7440-43-9
Plastic case and Si2O	0	N/A

Plastic Parts and Paints

HAZARDOUS INGREDIENTS	%	CAS NUMBER
Polychlorinate	More than 81 wt%	25971-63-5
Flame Retardant	Less than 12 wt%	
Elastomer	Less than 7 wt%	

3. HAZARDS IDENTIFICATION

PROTENTIAL HEALTH EFFECTS

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.

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(pack) 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

5.1 GENERAL HAZARD

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

5.2 EXTINGUISHING MEDIA

Use extinguishing media suitable for the materials that are burning.

5.3 SPECIAL FIREFIGHTING INSTRUCTIONS

If possible, remove cell(s) from fire fighting area. If heated above 125 °C, cell(s) can explode/vent.

5.4 FIREFIGHTING EQUIPMENT

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

6. ACCIDENTAL RELEASE MEASURES

6.1 ON LAND

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

6.2 IN WATER

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

7. HANDLING AND STORAGE

7.1 HANDLING

No special protective clothing required for handling individual cells.

7.2 STORAGE

Store in a cool dry place.

8. EXPOSURE CONTROLS//PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

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

8.2 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 cells.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

State
Odor

Solid
N/A

Lithium-ion Battery

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

10.1 REACTIVITY

None

10.2 INCOMPATIBILITIES

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

10.3 HAZARDOUS DECOMPOSITION PRODUCTS

None during normal operating conditions. If cells are opened, hydrogen fluoride and carbon monoxide may be released.

10.4 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.

Sensitization: NO Teratogenicity: NO Reproductive toxicity: NO Acute toxicity.

This product does not contain any kinds of the following substances and halogen-type flame retardants including Chlorine and Bromide type harmful flame retardants which are listed in Appendix of TCO documents and relevant international ECO requirements:

- Polybromated Biphenyls (PBB)
- Polybromated Diphenylethers (PBDE)
- Polychlorinated Biphenyls (PCBs)
- Polychlorinated Terphenyls (PCTs)
- Polychlorinated Paphthalene (PCN)
- Chlorinated Paraffins (C10-C13)
- Chlorofluorocarbons (CFCs)
- Polyvinyl Chloride (PVC)
- Carbon Tetrachloride

None of the following substances will be exposed, leaked, or emitted during transportation, storage or any operation and any temperature condition:

12. Ecological information

The batteries do not contain mercury, cadmium or other heavy metals.

13. Disposal Considerations

Dispose by incineration or burial at permitted waste treatment and/or disposal sites.

Batteries do not contain hazardous materials according to EC directives 91/157/EEC and 93/86/EEC.

For large quantities a disposal service is offered upon request.

14. Transport information

With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) *Technical Instructions* (2014~2015 Edition)
- The International Air Transport Association (IATA) *Dangerous Goods Regulations* (55th edition Packing Instruction 965 Section II or IB is applied as appropriate.
Each package is capable of withstanding a 1.2m drop test in any orientation without damage to cells or batteries contained therein, without shifting of the contents so as to allow battery to battery contact and without release of contents.
There is no hazard in accordance with the UN recommendation tests (UN *Manual of Tests and Criteria*, Part III, sub-section 38.3)
- The *International Maritime Dangerous Goods*(IMDG) *Code*(Edition 2010,Special Provisions 188,230,310&957 for UN3480/3481 Lithium-Ion Battery , Packing Instruction P903 for Lithium-ion batteries)
- US Department of Transportation (DOT) 49 *Code of Federal Regulations*

15. Regulatory Information:

Local hazardous waste disposal laws.

This product is made from materials with no detectable mercury.

16. Other Information:

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation. This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.



广州明美电子有限公司
Guangzhou TWS Electronics Limited

MATERIAL SAFETY DATA SHEET

File S/N: TWS-IMS-QE-201400227

Issue Date: 2014-1-3

We would like to inform our customers that these batteries are exempt articles and are not subject to the OSHA Hazard requirement, or to the Canadian WHMIS requirements and the sheets are supplied as a service to our customer.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Lithium Ion Batteries
Model	B7-A2Z0-0008
Rating	3.7V 4800mAh 17.7Wh
Company:	Guangzhou TWS Electronics Limited
Address:	No.39 Nanyunsan Road, Science Park, Hi-Tech Industrial Development Zone Guangzhou,P.R.China,510663
Manufacturer:	Guangzhou TWS Electronics Limited
Address:	No.39 Nanyunsan Road, Science Park, Hi-Tech Industrial Development Zone Guangzhou, P.R. China. 510663
Telephone no.	+ 86-20-22215111
Fax no.	+86-20-22213268

2. INGREDIENTS

Battery Cell

Components	Content (wt%)	CAS #
Lithium Cobalt Dioxide (LiCoO2)	less than 38wt%	12190-79
Lithium Hexafluorophosphate (LiPF6)	less than 3wt%	21324-40-38
Ethylene Carbonate (C3H4O3)	less than 6wt%	96-49-1
Chain Carbonate (-)	less than 8wt%	
Graphite (C)	less than 20wt%	7782-42-5
Lead (Pb)	less than 0.1wt%(1000ppm)	
Mercury (Hg)	less than 0.0005wt%(5ppm)	

Note: The others 25% includes the below material
 AL(Positive Base Film,Cap,Can,Tab)
 Cu(Negative Base Film)
 Ni(Tab,Terminal)
 Fe(Terminal)
 Resin(PP,PE,PET)(Separator,Plastic Parts,Insulator)

Circuit Module

HAZARDOUS INGREDIENTS	%	CAS NUMBER
-----------------------	---	------------

Lithium-ion Battery

Lead	<0.1	7439-92-1
Mercury	0	7439-97-6
Chromium	0	7440-47-3
Cadmium	0	7440-43-9
Plastic case and Si2O	0	N/A

Plastic Parts and Paints

HAZARDOUS INGREDIENTS	%	CAS NUMBER
Polychlorinate	More than 81 wt%	25971-63-5
Flame Retardant	Less than 12 wt%	
Elastomer	Less than 7 wt%	

3. HAZARDS IDENTIFICATION

PROTENTIAL HEALTH EFFECTS

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.

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(pack) 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

Lithium-ion Battery

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

5. FIRE FIGHTING MEASURES

5.1 GENERAL HAZARD

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

5.2 EXTINGUISHING MEDIA

Use extinguishing media suitable for the materials that are burning.

5.3 SPECIAL FIREFIGHTING INSTRUCTIONS

If possible, remove cell(s) from fire fighting area. If heated above 125°C, cell(s) can explode/vent.

5.4 FIREFIGHTING EQUIPMENT

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

6. ACCIDENTAL RELEASE MEASURES

6.1 ON LAND

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

6.2 IN WATER

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

7. HANDLING AND STORAGE

7.1 HANDLING

No special protective clothing required for handling individual cells.

7.2 STORAGE

Store in a cool dry place.

8. EXPOSURE CONTROLS//PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

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

8.2 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 cells.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

State	Solid
Odor	N/A

Lithium-ion Battery

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

10.1 REACTIVITY

None

10.2 INCOMPATIBILITIES

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

10.3 HAZARDOUS DECOMPOSITION PRODUCTS

None during normal operating conditions. If cells are opened, hydrogen fluoride and carbon monoxide may be released.

10.4 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.

Sensitization: NO Teratogenicity: NO Reproductive toxicity: NO Acute toxicity.

This product does not contain any kinds of the following substances and halogen-type flame retardants including Chlorine and Bromide type harmful flame retardants which are listed in Appendix of TCO documents and relevant international ECO requirements:

- Polybromated Biphenyls (PBB)
- Polybromated Diphenylethers (PBDE)
- Polychlorinated Biphenyls (PCBs)
- Polychlorinated Terphenyls (PCTs)
- Polychlorinated Paphthalene (PCN)
- Chlorinated Paraffins (C10-C13)
- Chlorofluorocarbons (CFCs)
- Polyvinyl Chloride (PVC)
- Carbon Tetrachloride

None of the following substances will be exposed, leaked, or emitted during transportation, storage or any operation and any temperature condition:

12. Ecological information

The batteries do not contain mercury, cadmium or other heavy metals.

13. Disposal Considerations

Dispose by incineration or burial at permitted waste treatment and/or disposal sites.

Batteries do not contain hazardous materials according to EC directives 91/157/EEC and 93/86/EEC.

For large quantities a disposal service is offered upon request.

Lithium-ion Battery

14. Transport information

With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) *Technical Instructions* (2013~2014 Edition)
- The International Air Transport Association (IATA) *Dangerous Goods Regulations* (55th edition Packing Instruction 965 Section II or IB is applied as appropriate.
Each package is capable of withstanding a 1.2m drop test in any orientation without damage to cells or batteries contained therein, without shifting of the contents so as to allow battery to battery contact and without release of contents.
There is no hazard in accordance with the UN recommendation tests (UN *Manual of Tests and Criteria*, Part III, sub-section 38.3)
- The *International Maritime Dangerous Goods*(IMDG) *Code*(Edition 2010,Special Provisions 188,230,310&957 for UN3480/3481 Lithium-Ion Battery , Packing Instruction P903 for Lithium-ion batteries)
- US Department of Transportation (DOT) 49 *Code of Federal Regulations*

15. Regulatory Information:

Local hazardous waste disposal laws.

This product is made from materials with no detectable mercury.

16. Other Information:

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation. This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Guangzhou TWS Electronics Limited
No.39 Nanyunsan Road, Science Park, Hi-Tech
Industrial Development Zone, Guangzhou,
China.

Tel: + 86-20-2221-3613

Fax: +86-20-2221-3268

No Mercury Certificate

We , Guangzhou TWS Electronics Limited, hereby certify that the below listed battery packs we supply which are made in China and do not contain Mercury.

We certify that these packs meet the environment regulations in the People's Republic of China for battery product.

Product Name: 302580 Li-ion Battery

Part Number: B7-A2Z0-0007

Guangzhou TWS Electronics Limited

2014-12-16

Guangzhou TWS Electronics Limited
No.39 Nanyunsan Road, Science Park, Hi-Tech
Industrial Development Zone, Guangzhou,
China.

Tel: + 86-20-2221-3613

Fax: +86-20-2221-3268

No Mercury Certificate

We , Guangzhou TWS Electronics Limited, hereby certify that the below listed battery packs we supply which are made in China and do not contain Mercury.

We certify that these packs meet the environment regulations in the People's Republic of China for battery product.

Product Name: 302584 Li-ion Battery

Part Number: B7-A2Z0-0008

Guangzhou TWS Electronics Limited

2014-12-16