107647

Safety Data Sheet

Regulation (EU) 2015/830 (REACH Annex II)

Applicant:	BMZ USA Inc
Address:	2656 Lishelle Pl Virginia beach,VA 23452
Sample Description:	Li-ion Battery Pack
Model No.:	107637
Emergency number:	1-800-424-9300 (CHEMTREC)

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Article

Trade name : Li-ion Battery Pack

Model No. : 107637

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Main use category:Powering a mobile phone

1.2.2. Uses advised against

Restrictions on use : No information available

1.3. Details of the supplier of the safety data sheet

Supplier : BMZ Company Limited
Address : Blk B Julong Technology Bldg, southwest of the intersection of Baolong NO.1 Rd and Chengxin Rd, Baolong Street, Longgang District.Shenzhen
Postal code: 518116
Phone :0755-89773981
FAX:0755-89775900
E-mail: Zhilin.Cai@bmz-group.com

1.4. Emergency telephone number

Emergency number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Carbon	(CAS-No.) 7440-44-0 (EC-No.) 231-153-3	10 - 30	Pyr. Sol. 1, H250
Aluminum	(CAS-No.) 7429-90-5 (EC-No.) 231-072-3 (EC Index-No.) 013-002-00-1	2 - 10	Flam. Sol. 1, H228 Water-react. 2, H261
Copper	(CAS-No.) 7440-50-8 (EC-No.) 231-159-6	2 - 10	Not classified
1,1-Difluoroethylene polymer	(CAS-No.) 24937-79-9 (EC-No.) 607-458-6	< 5	Not classified

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If symptoms persist call a doctor.

First-aid measures after inhalation : Not expected to be a primary route of exposure.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Not expected to be a primary route of exposure.

First-aid measures after ingestion : Not expected to be a primary route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Thermal decomposition may produce : Carbon oxides (CO, CO2).

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Aluminum (7429-90-5)		
Austria	MAK (mg/m³)	10 mg/m³ (inhalable fraction)
Austria	MAK Short time value (mg/m³)	20 mg/m³ (inhalable fraction)
Belgium	Limit value (mg/m³)	1 mg/m³
Bulgaria	OEL TWA (mg/m³)	10 mg/m³ (metal dust) 1.5 mg/m³ (respirable fraction)
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	10 mg/m³ (total dust) 4 mg/m³ (respirable dust)
Croatia	Croatia - BLV	200 mg/l Parameter: Aluminum - Medium: urine - Sampling time: at the end of the work shift
Czech Republic	Expoziční limity (PEL) (mg/m³)	10 mg/m³ (dust)
Denmark	Grænseværdie (langvarig) (mg/m³)	5 mg/m³ (dust, fume and powder, total) 2 mg/m³ (dust and powder, respirable)
Estonia	OEL TWA (mg/m³)	10 mg/m³ (total dust) 4 mg/m³ (respirable dust)
France	VME (mg/m³)	10 mg/m³ (metal) 5 mg/m³ (dust)
Greece	OEL TWA (mg/m³)	10 mg/m³ (inhalable fraction) 5 mg/m³ (respirable fraction)
Hungary	AK-érték	6 mg/m³ (respirable dust)
Ireland	OEL (8 hours ref) (mg/m³)	1 mg/m³ (respirable fraction)
Ireland	OEL (15 min ref) (mg/m3)	3 mg/m³ (calculated-respirable dust)
Latvia	OEL TWA (mg/m³)	2 mg/m³
Lithuania	IPRV (mg/m³)	5 mg/m³ (inhalable fraction) 2 mg/m³ (respirable fraction) 1 mg/m³
Poland	NDS (mg/m³)	2.5 mg/m³ (non-stabilized-inhalable fraction) 1.2 mg/m³ (non-stabilized-respirable fraction)
Portugal	OEL TWA (mg/m³)	10 mg/m³ (metal dust)
Romania	OEL TWA (mg/m³)	3 mg/m³ (dust) 1 mg/m³ (fume)
Romania	OEL STEL (mg/m³)	10 mg/m³ (dust) 3 mg/m³ (fume)
Romania	Romania - BLV	200 µg/l Parameter: Aluminum - Medium: urine - Sampling time: end of shift
Slovakia	Slovakia - BLV	60 µg/g creatinine Parameter: Aluminum - Medium: urine - Sampling time: not critical
Spain	VLA-ED (mg/m³)	10 mg/m³ (dust)
Sweden	nivågränsvärde (NVG) (mg/m³)	5 mg/m³ (total dust) 2 mg/m³ (respirable dust)
United Kingdom	WEL TWA (mg/m³)	10 mg/m³ (inhalable dust) 4 mg/m³ (respirable dust)
United Kingdom	WEL STEL (mg/m³)	30 mg/m³ (calculated-inhalable dust) 12 mg/m³ (calculated-respirable dust)
Norway	Grenseverdier (AN) (mg/m³)	5 mg/m³ (pyrotechnical-powder)

Aluminum (7429-90-5)		
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	10 mg/m³ (pyrotechnical-powder)
Switzerland	MAK (mg/m³)	3 mg/m³ (respirable dust)
Switzerland	Switzerland - BLV	60 µg/g creatinine Parameter: Aluminum - Medium: urine - Sampling time: no restrictions
USA - ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (respirable particulate matter)

Copper (7440-50-8)		
Austria	MAK (mg/m³)	1 mg/m³ (inhalable fraction) 0.1 mg/m³ (respirable fraction, smoke)
Austria	MAK Short time value (mg/m³)	4 mg/m³ (inhalable fraction) 0.4 mg/m³ (respirable fraction, smoke)
Belgium	Limit value (mg/m³)	0.2 mg/m³ (fume) 1 mg/m³ (dust and mist)
Bulgaria	OEL TWA (mg/m³)	0.1 mg/m³ (metal vapor)
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	0.2 mg/m³ (fume) 1 mg/m³ (dust)
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	2 mg/m³ (fume and dust)
Czech Republic	Expoziční limity (PEL) (mg/m³)	1 mg/m³ (dust) 0.1 mg/m³ (fume)
Denmark	Grænseværdie (langvarig) (mg/m³)	1 mg/m³ (dust and powder) 0.1 mg/m³ (fume)
Estonia	OEL TWA (mg/m³)	1 mg/m³ (total dust) 0.2 mg/m³ (respirable dust)
Finland	HTP-arvo (8h) (mg/m³)	0.02 mg/m³ (respirable dust)
France	VME (mg/m³)	0.2 mg/m³ (fume) 1 mg/m³ (dust)
France	VLE (mg/m³)	2 mg/m³ (dust)
Greece	OEL TWA (mg/m³)	0.2 mg/m³ (fume) 1 mg/m³ (dust)
Greece	OEL STEL (mg/m³)	2 mg/m³ (dust)
Hungary	AK-érték	1 mg/m³ 0.1 mg/m³ (fume)
Hungary	CK-érték	4 mg/m³ 0.4 mg/m³ (fume)
Ireland	OEL (8 hours ref) (mg/m³)	0.2 mg/m³ (fume) 1 mg/m³ (dusts and mists)
Ireland	OEL (15 min ref) (mg/m3)	2 mg/m³ (dusts and mists) 0.6 mg/m³ (calculated-fume)
Latvia	OEL TWA (mg/m³)	0.5 mg/m³
Lithuania	IPRV (mg/m³)	1 mg/m³ (inhalable fraction) 0.2 mg/m³ (respirable fraction)
Netherlands	Grenswaarde TGG 8H (mg/m³)	0.1 mg/m³ (inhalable fraction)
Poland	NDS (mg/m³)	0.2 mg/m³
Portugal	OEL TWA (mg/m³)	0.2 mg/m³ (fume) 1 mg/m³ (dust and mist)

Copper (7440-50-8)		
Romania	OEL TWA (mg/m³)	0.5 mg/m³ (powder)
Romania	OEL STEL (mg/m³)	0.2 mg/m³ (fume) 1.5 mg/m³ (dust)
Slovakia	NPHV (priemerná) (mg/m³)	1 mg/m³ (inhalable fraction) 0.2 mg/m³ (respirable fraction)
Slovenia	OEL TWA (mg/m³)	1 mg/m³ (inhalable fraction) 0.1 mg/m³ (respirable fraction, fume)
Slovenia	OEL STEL (mg/m³)	4 mg/m³ (inhalable fraction) 0.4 mg/m³ (respirable fraction, fume)
Spain	VLA-ED (mg/m³)	0.2 mg/m³ (fume) 1 mg/m³ (dust and mist)
Sweden	nivågränsvärde (NVG) (mg/m³)	0.01 mg/m³ (respirable dust)
United Kingdom	WEL TWA (mg/m³)	1 mg/m³ (dust and mists) 0.2 mg/m³ (fume)
United Kingdom	WEL STEL (mg/m³)	0.6 mg/m³ (calculated-fume) 2 mg/m³ (dust and mist)
Norway	Grenseverdier (AN) (mg/m³)	0.1 mg/m³ (fume) 1 mg/m³ (dust)
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	0.3 mg/m³ (value calculated-fume) 2 mg/m³ (value calculated-dust)
Switzerland	MAK (mg/m³)	0.1 mg/m³ (inhalable dust)
Switzerland	KZGW (mg/m³)	0.2 mg/m³ (inhalable dust)
USA - ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³ (fume)

Carbon (7440-44-0)		
Austria	MAK (mg/m³)	5 mg/m³ (alveolar dust with <1% Quartz, respirable fraction)
Austria	MAK Short time value (mg/m³)	10 mg/m³ (alveolar dust with <1% Quartz, respirable fraction)
Poland	NDS (mg/m³)	6 mg/m³ (synthetic-inhalable fraction)

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Grey.
Odour	: Odourless.
Odour threshold	: No data available
pH	: No data available
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Critical temperature	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Critical pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Non explosive
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available
Dust deflagration index	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Carbon (7440-44-0)	
LD50 oral rat	> 10000 mg/kg

Skin corrosion/irritation : Not classified
pH: No data available

Serious eye damage/irritation : Not classified
pH: No data available

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Copper (7440-50-8)	
LC50 fish 1	0.0068 - 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
LC50 fish 2	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 72h algae (1)	0.0426 - 0.0535 mg/l (Species: Pseudokirchneriella subcapitata [static])
EC50 96h algae (1)	0.031 - 0.054 mg/l (Species: Pseudokirchneriella subcapitata [static])

12.2. Persistence and degradability

Li-ion Battery Pack	
Persistence and degradability	No information available.

12.3. Bioaccumulative potential

Li-ion Battery Pack	
Log Pow	No data available
Log Kow	No data available
Bioaccumulative potential	No information available.

12.4. Mobility in soil

Li-ion Battery Pack	
Ecology - soil	No information available.

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
Other adverse effects : No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 3480	UN 3480	UN 3480	UN 3480	UN 3480
14.2. UN proper shipping name				
LITHIUM ION BATTERIES	LITHIUM ION BATTERIES	Lithium ion batteries	LITHIUM ION BATTERIES	LITHIUM ION BATTERIES
Transport document description				
UN 3480 LITHIUM ION BATTERIES, 9A, (E)	UN 3480 LITHIUM ION BATTERIES, 9	UN 3480 Lithium ion batteries, 9	UN 3480 LITHIUM ION BATTERIES, 9A	UN 3480 LITHIUM ION BATTERIES, 9A
14.3. Transport hazard class(es)				
9A	9A	9	9A	9A
				
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user
Overland transport

Classification code (ADR) : M4
Special provisions (ADR) : 188, 230, 310, 348, 376, 377, 636
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P903, P908, P909, P910, LP903, LP904
Transport category (ADR) : 2
Tunnel restriction code (ADR) : E

EAC code	: 4W
Transport by sea	
Special provisions (IMDG)	: 188, 230, 310, 348, 376, 377, 384
Packing instructions (IMDG)	: P903, P908, P909 , P910, LP903, LP904
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-I
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW19
Properties and observations (IMDG)	: Electrical batteries containing lithium ion encased in a rigid metallic body. Lithium ion batteries may also be shipped in, or packed with, equipment. Electrical lithium batteries may cause fire due to an explosive rupture of the body caused by improper construction or reaction with contaminants.
Air transport	
PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: See 965
CAO max net quantity (IATA)	: See 965
Special provisions (IATA)	: A88, A99, A154, A164, A183, A201, A206, A331
ERG code (IATA)	: 9F
Inland waterway transport	
Classification code (ADN)	: M4
Special provisions (ADN)	: 188, 230, 310, 348, 376, 377, 636
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0
Rail transport	
Classification code (RID)	: M4
Special provisions (RID)	: 188, 230, 310, 348, _376, 377, 636
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P903, 908, 909, P910, LP903, LP904
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE2
Hazard identification number (RID)	: 90

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.1.1. EU-Regulations

Contains no substance on the REACH candidate list
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

Germany

Reference to AwSV	: Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: None of the components are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources	: LOLI.
Training advice	: Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H- and EUH-statements:	
H228	Flammable solid
H250	Catches fire spontaneously if exposed to air
H261	In contact with water releases flammable gases.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.