

Ships Bag for MB/L 721511290

Container: HJMU1537764	1
PL SHEET HJMU 153 776 4.pdf	1
00346 MANIFEST 0947375.pdf	2
document.pdf	4
HB/L: 29187420	7
TYP: Externes B/L	7
VER284478 HBL 53.pdf	7
HB/L: VER284474	9
TYP: B/L	9
SACO Shipping Line Ltd. B/L VER284474 VER28447	9
HB/L: VER284496	10
TYP: B/L	10
SACO Shipping Line Ltd. B/L VER284496 VER28449	10
HB/L: VER284501	11
TYP: B/L	11
SACO Shipping Line Ltd. B/L VER284501 VER28450	11
HB/L: VER284516	12
TYP: B/L	12
SACO Shipping Line Ltd. B/L VER284516 VER28451	12
HB/L: VER284523	13
TYP: B/L	13
SACO Shipping Line Ltd. B/L VER284523 VER28452	13
HB/L: VER284524	14
TYP: B/L	14
SACO Shipping Line Ltd. B/L VER284524 VER28452	14
HB/L: VER284537	15
TYP: B/L	15
SACO Shipping Line Ltd. B/L VER284537 VER28452	15
HB/L: VER284546	17
TYP: B/L	17
SACO Shipping Line Ltd. B/L VER284546 VER28454	17

HB/L: VER284548	18
TYP: MSDS	18
'VER284548 MSDS 1.pdf'	18
'VER284548 MSDS 2.pdf'	24
'VER284548 MSDS 3.pdf'	35
'VER284548 MSDS 4.pdf'	46
'VER284548 MSDS 5.pdf'	57
'VER284548 MSDS 6.pdf'	73
'VER284548 MSDS 7.pdf'	89
'VER284548 MSDS 8.pdf'	105
'VER284548 MSDS 9.pdf'	111
'VER284548 MSDS 10.pdf'	117
'VER284548 MSDS 11.pdf'	137
'VER284548 MSDS 12.pdf'	155
TYP: B/L	175
SACO Shipping Line Ltd. B/L VER284548 VER28454	175

valid from March 1st 2026

saco 

SHIPPER	Consignee	Doc fee	Unstuffing	Admin	Tranmiss.	Port Transfer
Würth Hansa Gateway	Knippling/Globaltranz all	USD 50,- USD 70,-	USD 28,-w/m USD 33,-w/m			

Manifest

Page: 1

Container-No.: HJMU1537764 40' HIGH CUBE CONTAINER Seal-No.: B143251

Vessel: SAC0912 / MAERSK MONTE OLIVIA

ETS:

Master-B/L.: 721511290

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
29187420	S01279056 ERICSSON ANTENNA TECHNOLOGY TLAXCALA 90434 MX	6	PACKAGES	TELECOMMUNICATIO EQUIPMENT HS CODE:85442000	3912.000	6.180
VER284474	OE GERMANY GMBH BUS ZONE VAU0081259	3	PALLETS	AUTOMOTIVE SPARE PARTS AS PER INVOICE:VRG0078387 HS-CODE: 848330, 840999, 848310	1084.000	1.888
VER284496	S-19-P93135-690/82 JET	1	PACKAGE	AGRICULTURE MACHINE PARTS HS CODE:84369900	183.000	0.343
VER284501	AUTOMOTIVE BEND DE MEXICO S DE RL DE CV DN: 951979	1	PALLET	RODS, TUBES AND PROFILE SHAPES INV: 716304 HS CODE: 400829	277.580	1.277
VER284516	VER284516 BANG KRAN MEXICO MEXICO	1	PALLET	CRANE PARTS HS CODE:85312020,76169	85.000	1.886
VER284523	THELEICO A20038262 PO 9000-4203 A20039471 PO 9000-4302	3	CASES	GRINDING WHEELS HS CODE: 68042212	1344.000	1.765
VER284524	IACNA MEXICO DN:60339789	1	PALLET	AUTOMOTIV PARTS INV: 90018614 HS CODE: 392113	477.000	2.151

Manifest

Page: 2

Container-No.: HJMU1537764 40' HIGH CUBE CONTAINER Seal-No.: B143251

Vessel: SAC0912 / MAERSK MONTE OLIVIA

ETS:

Master-B/L.: 721511290

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
VER284537	VER284520 1050396 COMERCIALIZADOR DE MAQUINARIA INDUSTRIAL MAQUIMEX 97113 MERIDA (YUCATAN)/ MEXICO VIA PORT VERACRUZ P/O#CMI2305097A3 (1050396) MADE IN GERMANY	1	PACKAGE	PARTS FOR FORKLIFT TRUCK ATTACHMENT **HSCODE: 843120** **HSCODE: 84312000**	241.000	1.214
VER284546	FULTERER MEXICO S. DE R.L. DE C.V. PHONE: 0055 2345 3248 AV. PUERTO MAZATLAN 41, BODEGA 20, COL JORGE NEGRETE MX-CP 07280 GUSTAVO A MADERO	18	PALLETS	(=38 BOXES ON 18 ONE WAY PALLETS) METAL DRAWERSLIDES HS CODE: 83024200	8865.500	12.146
VER284548	2401165747	12	PALLETS	SOUND EQUIPMENT **HSCODE: 851830**	3055.000	23.895

Total**Quantity
47****Grossweight Measurement
19.524.080 52.745**

 MAERSK		NON-NEGOTIABLE WAYBILL		SCAC MAEU
				B/L No. 721511290
Shipper (As principal, where "care of", "c/o", or other variants used.) SACO SHIPPING GMBH AS AGENT OF SACO SHIPPING LINE LIMITED WOLLKAEMMERSTR. 1 D-21107 HAMBURG / GERMANY TAX-ID. DE-118597456		Booking No. 721511290		
Consignee (Negotiable only if consigned "to order", "to order of" a named Person or "to order of bearer". As principal, where "care of", "c/o", or other variants used.) INTERTEAM, S.A. DE C.V. COLIMA 114, INT 201 COLONIA ROMA, C.P. 06700 MEXICO CITY. TEL: +525555149897 TAX ID: INT961206ES7 CTC: MARCELA GODINEZ		Export references 606HAM1629BECH		
Notify Party (see clause 22) SAME AS CONSIGNEE EMAIL: IMPORT@INTERTEAM.COM.MX		Svc Contract 299542652		
This contract is subject to the terms, conditions and exceptions, including the law & jurisdiction clause and limitation of liability & declared value clauses, of the current Maersk Bill of Lading (available from the Carrier, its agents and at terms.maersk.com/carriage), which are applicable with logical amendments (mutatis mutandis). To the extent necessary to enable the Consignee to sue and to be sued under this contract, the Shipper on entering into this contract does so on his own behalf and as agent for and on behalf of the Consignee and warrants that he has the authority to do so. The shipper shall be entitled to change the Consignee at any time before delivery of the goods provided he gives the Carrier reasonable notice in writing. Delivery will be made to the Consignee or his authorised agent on production of reasonable proof of identity (and, in the case of an agent, reasonable proof of authority) without production of this waybill. The Carrier shall be under no liability whatsoever for misdelivery unless caused by the Carrier's negligence.				
Onward inland routing (Not part of Carriage as defined in clause 1. For account and risk of Merchant)				
Vessel MAERSK MONTE OLIVIA	Voyage No. 623S	Place of Receipt. Applicable only when document used as Multimodal Waybill Hamburg		
Port of Loading Hamburg	Port of Discharge Veracruz *	Place of Delivery. Applicable only when document used as Multimodal Transport B/L. (see clause 1)		

PARTICULARS FURNISHED BY SHIPPER

Kind of Packages; Description of goods; Marks and Numbers; Container No./Seal No. 1 Container Said to Contain 47 PACKAGE HJMU 153776-4 40/DRY 9'6 3 PALLETS GROSS WEIGHT: 1084.000 KGS MEASUREMENT: 1.888 CBM AUTOMOTIVE SPARE PARTS AS PER INVOICE:VRG0078387 HS-CODE: 848330, 840999, 848310 6 PACKAGES GROSS WEIGHT: 3912.000 KGS MEASUREMENT: 6.180 CBM TELECOMMUNICATION EQUIPMENT HS CODE:85442000 1 PACKAGE GROSS WEIGHT: 183.000 KGS MEASUREMENT: 0.343 CBM AGRICULTURE MACHINE PARTS HS CODE:84369900 1 PALLET GROSS WEIGHT: 277.580 KGS MEASUREMENT: 1.277 CBM RODS, TUBES AND PROFILE SHAPES Below freight details will not be part of Original Bill of Lading unless requested by customer Above particulars as declared by Shipper, but without responsibility of or representation by Carrier.	Weight 19524.080 KGS	Measurement 52.745 CBM
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Freight & Charges		Rate	Unit	Currency	Prepaid	Collect
Charges Name Basic Ocean Freight Container Protect Essential Documentation fee - Destination		Prepaid/Collect Prepaid Collect Collect	Invoice Party SACO SHIPPING GMBH		Customer Code 11314343	Collection Business Unit Maersk Deutschland (Hamburg)
Carrier's Receipt. Total number of containers or packages received by Carrier. 1 container		Place of Issue of Waybill Mumbai		Shipped, as far as ascertained by reasonable means of checking, in apparent good order and condition unless otherwise stated herein the total number or quantity of Containers or other packages or units indicated in the box opposite entitled "Carrier's Receipt"		
Shipped on Board Date (Local Time)		Date Issue of Waybill				
Declared Value Charges (see clause 7.3 of the Maersk Bill of Lading) for Declared Value of US\$						
Signed for the Carrier Maersk A/S						
This transport document has one or more numbered pages						
As Agent(s)						

INV: 716304
 HS CODE: 400829
 1 PALLET GROSS WEIGHT: 85.000 KGS MEASUREMENT: 1.886 CBM
 CRANE PARTS
 HS CODE: 85312020, 76169990
 1 PACKAGE GROSS WEIGHT: 241.000 KGS MEASUREMENT: 1.214 CBM
 PARTS FOR FORKLIFT TRUCK
 ATTACHMENT
 HSCODE: 843120
 HSCODE: 84312000
 3 CASES GROSS WEIGHT: 1344.000 KGS MEASUREMENT: 1.765 CBM
 GRINDING WHEELS
 HS CODE: 68042212
 1 PALLET GROSS WEIGHT: 477.000 KGS MEASUREMENT: 2.151 CBM
 AUTOMOTIV PARTS
 INV: 90018614
 HS CODE: 392113
 18 PALLETS GROSS WEIGHT: 8865.500 KGS MEASUREMENT: 12.146 CBM
 (=38 BOXES ON 18 ONE WAY
 PALLETS)
 METAL DRAWERSLIDES
 HS CODE: 83024200
 12 PALLETS GROSS WEIGHT: 3055.000 KGS MEASUREMENT: 23.895 CBM
 SOUND EQUIPMENT
 HSCODE: 851830

HJMU1537764 40 DRY 9'6 47 PACKAGE 19524.080 KGS 52.745 CBM

Shipper Seal : B143251

The Merchant(s) warrant and represent that this shipment and/or Goods will comply at all times with European Union, United States and United Nations sanctions and/or export control laws (Sanctions Laws), and that this shipment and/or Goods do not involve, whether directly or indirectly, any entity or person identified, or owned or controlled by any such entity or person identified, on the U.S. Treasury Departments Office of Foreign Asset Control (OFAC) list of Specially Designated Nationals and Blocked Persons, or any

Freight & Charges		Rate	Unit	Currency	Prepaid	Collect
Charges Name	Prepaid/Collect	Invoice Party		Customer Code	Collection Business Unit	
Terminal Handling Service - Destination	Collect					
Emergency Bunker Surcharge	Prepaid	SACO SHIPPING GMBH		11314343	Maersk Deutschland (Hamburg)	
Export Intermodal Fuel Fee	Prepaid	SACO SHIPPING GMBH		11314343	Maersk Deutschland (Hamburg)	
Equipment Handling Import	Collect					
Emission Surcharge	Prepaid	SACO SHIPPING GMBH		11314343	Maersk Deutschland (Hamburg)	
Inland Haulage Export	Prepaid	SACO SHIPPING GMBH		11314343	Maersk Deutschland (Hamburg)	
Peak Season Surcharge	Prepaid	SACO SHIPPING GMBH		11314343	Maersk Deutschland (Hamburg)	
Value Protect Starter	Prepaid	SACO SHIPPING GMBH		11314343	Maersk Deutschland (Hamburg)	

other similar list maintained by the European Union, or as promulgated by the United Nations Security Council (Designated Person). If, in the Carriers reasonable opinion, this shipment and/or Goods are in violation of the Carriers policy on Russia [https://www.maersk.com/news/articles/2022/02/24/russia-ukraine-situation-update], Sanctions Laws or involves any Designated Person, the shipment and/or Goods will be returned to the origin at Carriers sole and unfettered discretion, and the Merchant(s) shall indemnify and hold harmless the Carrier, its servants and agents, for any breach of this clause. The Merchant(s) agree that the Carrier may stop the shipment and/or Goods in transit or withhold release of the shipment and/or Goods pending any investigation into compliance with this clause by the Merchant(s).
SHIPPER'S LOAD, STOW, WEIGHT AND COUNT
FREIGHT PREPAID
SD/CY

Freight & Charges		Rate	Unit	Currency	Prepaid	Collect
Charges Name	Prepaid/Collect	Invoice Party		Customer Code	Collection Business Unit	

SHIPPER/EXPORTER (COMPLETE NAME AND ADDRESS) UPS SCS (ROMANIA) SRL AS AGENT FOR UPS EUROPE SRL STRADA AUREL VLAICU 11C, HENRI COANDA INTERNATIONAL AIRPORT OTOPENI ILFOV B 075150, RO11930114 RO - ROMANIA		BOOKING NO. 29187420	BILL OF LADING NO. 29187420
CONSIGNEE (NOT NEGOTIABLE UNLESS CONSIGNED TO ORDER) UPS SCS MEXICO SA DE CV AS AGENT FOR UPS OCEAN FREIGHT SERVICES EUGENIA NO. 189 COL NARVARTE ORIENTE CIUDAD DE MEXICO MEX CP 03020 MEXICO RFC+12346646 EMAIL:UPSOCEANMEXICO@UPS.COM		EXPORT REFERENCES C00317701	
		FORWARDING AGENT, F.M.C. NO UPS SCS (ROMANIA) SRL AS AGENT FOR UPS EUROPE SRL STRADA AUREL VLAICU 11C, HENRI COANDA INTERNATIONAL OTOPENI ILFOV B	
NOTIFY PARTY (COMPLETE NAME AND ADDRESS) SAME AS CONSIGNEE		POINT AND COUNTRY OF ORIGIN OF GOODS	
PRE-CARRIAGE BY*		FOR DELIVERY PLEASE APPLY TO	
EXPORT CARRIER (VESSEL/VOY/FLAG) MAERSK MONTE OLIVIA 623W	PLACE OF RECEIPT BY PRE-CARRIER* BUCHAREST	TRANSHIPMENT PORT	
PORT OF DISCHARGE VERACRUZ	PORT OF LOADING HAMBURG	LOADING PIER/TERMINAL CFS / CFS	
	PLACE OF DELIVERY BY ON CARRIER* VERACRUZ	NUMBER OF ORIGINALS 0/EXPRESS	
		2605963017	

PARTICULARS FURNISHED BY SHIPPER				
MARKS & NOS/CONTAINER NOS	NO. OF PKGS	DESCRIPTION OF PACKAGES AND GOODS	GROSS WEIGHT	MEASUREMENT
S01279056 ERICSSON ANTENNA TECHNOLOGY TLAXCALA 90434 MX	6	PACKAGES TELECOMMUNICATION EQUIPMENT HS CODE:85442000 FREIGHT PREPAID	8624.484 Lbs 3912.000 Kgs	218.245 Cbf 6.180 Cbm

For notification purpose only

Page 1 of 1

Total: 8624.484 Lbs 218.245 Cbf
3912.000 Kgs 6.180 Cbm

SHIPPERS DECLARED VALUE \$
SUBJECT TO EXTRA FREIGHT AS PER TARIFF AND CLAUSE 8 (3) OF THIS B/L

FREIGHT & CHARGES		BASIS	RATE	PREPAID	COLLECT
					
RECEIVED by Carrier, so far as can be reasonably ascertained, in external apparent good order and condition (unless otherwise stated herein) the Goods as specified above for carriage from the Place of Receipt or Port of Loading to the Port of Discharge or Place of Delivery, whichever is applicable. Notwithstanding any local customs or privileges to the contrary, Merchant agrees on acceptance of contract or acceptance or notice of this Bill to be bound, and that the Goods and Services as evidenced herein are subject to, all terms of the Bill including but not limited to Defences (as defined), indemnities, liberties and the law & jurisdiction provisions hereof whether appearing on the front or reverse or whether printed or stamped or otherwise incorporated herein and in the Carrier's Tariff, as if all signed by the Merchant. Above particulars of the Goods and address details are as provided and as declared by Merchant				TOTAL	TOTAL

[illegible]

DATED AT Bucharest ON JUN 07, 2026

BY SHIPCO TRANSPORT AS CARRIER

Shipper
QCS-QUICK CARGO SERVICE GMBH
WERNER-WITT-STRASSE 5
21035 HAMBURG, GERMANY
TAX-ID:DE114202533
TELEPHONE: 00494023838940

B/L No.
VER284474



SACO SHIPPING LINE LTD

Consigned to order of
AIRMAR TRANSPORTES INTERNACIONALES
S.A. DE C.V. NORTE 174, NO. 549,
COL PENSADOR MEXICANO 15510 MEXICO,
CDMX MEXICO RFC: ATI 9307029F8
TEL: 52.55.19.99.90.00

Notify Party and address
AIRMAR TRANSPORTES INTERNACIONALES
S.A. DE C.V. NORTE 174, NO. 549,
COL PENSADOR MEXICANO 15510 MEXICO,
CDMX MEXICO RFC: ATI 9307029F8
TEL: 52.55.19.99.90.00

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/162906

Copy

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable VERACRUZ
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. OE GERMANY GMBH BUS ZONE VAU0081259	Quantity of Goods 3 PALLETS	Description of Goods AUTOMOTIVE SPARE PARTS AS PER INVOICE:VRG0078387 HS-CODE: 848330, 840999, 848310	Said to contain Gross weight, kg. 1084,000 Measurement, m ³ 1,888

STOWED INTO CONTAINER NO.: HJMU1537764

SEAL : B143251

TOTAL	3 PALLETS	1084,000 KGS	1,888 CBM
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FREIGHT COLLECT - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA,C.P. 06700 MEXICO D.F.
TEL:005255146915,FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Shipper
ANDRITZ FEED & BIOFUEL A/S
GLENTEVEJ 5-7
ESBJERG O 6705
DENMARK

B/L No.
VER284496



SACO SHIPPING LINE LTD

Consigned to order of
ANDRITZ S.A. DE C.V.
AV. FRANCISCO I. MADERO ORIENTE
NO. 5595, COL. CIUDAD INDUSTRIAL
MORELIA 58200
MEXICO

Notify Party and address
ANDRITZ S.A. DE C.V.
ATT.: LAURA GOMEZ
EMAIL: LAURA.GOMEZ@ANDRITZ.COM
PHONE: +52 443 318 4959

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/162915

Copy

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable HAMBURG
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. S-19-P93135-690/826004 89 JET STOWED INTO CONTAINER NO.: HJMU1537764	Quantity of Goods 1 PACKAGE	Description of Goods AGRICULTURE MACHINE PARTS HS CODE:84369900	Said to contain Gross weight, kg. 183,000 Measurement, m ³ 0,343
		SEAL : B143251	

TOTAL **1 PACKAGE** **183,000 KGS** **0,343 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL:005255146915, FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Shipper
LINKINPARTNER EUROPE GMBH
HAMMERBROOKSTR. 90,
20097 HAMBURG
GERMANY
VAT NR.: DE267178901

B/L No.
VER284501



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/162919

Copy

Consigned to order of
EUROPARTNERS MEXICO S.A. DE C.V.
AVENIDA REVOLUCION #649
COLONIA JARDIN ESPANOL
MONTERREY, NUEVO LEON
MEXICO 64820
RFC: EME020824U4A

Notify Party and address
EUROPARTNERS MEXICO S.A. DE C.V.
TAX ID: EME020824U4A
PH: +52(81)8220 2630
FX: +52(81)8342 8310
RFC: EME020824U4A

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG	
Port of discharge VERACRUZ		Place of delivery VERACRUZ CFS	Freight payable VERACRUZ
			Number of original Bills of Lading 0/ZERO
Marks and Nos. AUTOMOTIVE BEND DE MEXICO S DE RL DE CV DN: 951979	Quantity of Goods 1 PALLET	Description of Goods RODS, TUBES AND PROFILE SHAPES INV: 716304 HS CODE: 400829	Gross weight, kg. 277,580
			Measurement, m ³ 1,277

STOWED INTO CONTAINER NO.: HJMU1537764

SEAL : B143251

TOTAL **1 PALLET** **277,580 KGS** **1,277 CBM**

FREIGHT COLLECT - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL: 005255146915, FAX: 005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wolkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Shipper
HANSA GATEWAY UG
(HAFTUNGSBESCHRAENKT)
WAGNERSTR. 14
08523 PLAUE, GERMANY
TAX-ID: DE273690361
TEL.: +49(0)37415764858

B/L No.
VER284516



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED

44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/162926

Copy

Consigned to order of
PRIMETEAM S.A. DE C.V.
CALLE ORIZABA 154 DESP. 312
COLONIA ROMA NORTE, ALCALDIA
CUAUHTEMOC, CIUDAD DE MEXICO,
CP. 06700, MEXICO.
TAX ID / RFC: PRI150108PL8 EMAIL: ???

Notify Party and address
PRIMETEAM S.A. DE C.V.
CALLE ORIZABA 154 DESP. 312
COLONIA ROMA NORTE, ALCALDIA
CUAUHTEMOC, CIUDAD DE MEXICO,
CP. 06700, MEXICO.
TAX ID / RFC: PRI150108PL8 EMAIL: ???

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ FOT		Freight payable HAMBURG
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. VER284516 BANG KRAN MEXICO MEXICO STOWED INTO CONTAINER NO.: HJMU1537764	Quantity of Goods 1 PALLET	Description of Goods CRANE PARTS HS CODE:85312020,76169990	Said to contain Gross weight, kg. 85,000 Measurement, m ³ 1,886

SEAL : B143251

TOTAL **1 PALLET** **85,000 KGS** **1,886 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL.:005255146915, FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Shipper
A. HARTRODT DEUTSCHLAND
(GMBH & CO) KG
RECHA-LUEBKE-DAMM 31
20097 HAMBURG
GERMANY

B/L No.
VER284523



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/162930

Copy

Consigned to order of

A. HARTRODT MEXICO S.A. DE C.V.
RFC: AHM0810275D8
AV. INSURGENTES SUR 800, FLOOR 9
C.P. 03100. CIUDAD DE MEXICO
MEXICO

Notify Party and address

A. HARTRODT MEXICO S.A. DE C.V.
RFC: AHM0810275D8
AV. INSURGENTES SUR 800, FLOOR 9
C.P. 03100. CIUDAD DE MEXICO
MEXICO

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable FREIGHT PREPAID
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. THELEICO A20038262 PO 9000-4203 A20039471 PO 9000-4302 STOWED INTO CONTAINER NO.: HJMU1537764	Quantity of Goods 3 CASES	Description of Goods GRINDING WHEELS HS CODE: 68042212	Said to contain Gross weight, kg. 1344,000 Measurement, m ³ 1,765

SEAL : B143251

TOTAL **3 CASES** **1344,000 KGS** **1,765 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL:005255146915, FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue

HAMBURG 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Shipper
LINKINPARTNER EUROPE GMBH
HAMMERBROOKSTR. 90,
20097 HAMBURG
GERMANY
VAT NR.: DE267178901

B/L No.
VER284524



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/162931

Copy

Consigned to order of
EUROPARTNERS MEXICO S.A. DE C.V.
AVENIDA REVOLUCION #649
COLONIA JARDIN ESPANOL
MONTERREY, NUEVO LEON
MEXICO 64820
RFC: EME020824U4A

Notify Party and address
EUROPARTNERS MEXICO S.A. DE C.V.
TAX ID: EME020824U4A
PH: +52(81)8220 2630
FX: +52(81)8342 8310
RFC: EME020824U4A

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable VERACRUZ
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. IACNA MEXICO DN:60339789	Quantity of Goods 1 PALLET	Description of Goods AUTOMOTIV PARTS INV: 90018614 HS CODE: 392113	Said to contain Gross weight, kg. 477,000 Measurement, m ³ 2,151
STOWED INTO CONTAINER NO.: HJMU1537764		SEAL : B143251	

TOTAL	1 PALLET	477,000 KGS	2,151 CBM
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FREIGHT COLLECT - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL: 005255146915, FAX: 005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

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IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Shipper
LOGWIN AIR + OCEAN DEUTSCHLAND GMBH
BANKSSTRASSE 28
HAMBURG HH 20097 GERMANY
+49403197900
+4940319790119
CONSOL.HAMBURG@LOGWIN-LOGISTICS.COM
EORI+DE7024460

Consigned to order of
LOGWIN AIR+OCEAN MEXICO SA DE CV
RFC:LAS070725BM6
AV. COYOACAN 1622,TORRE 3, NIVEL 2,
OFICINA 201, COLONIA DEL VALLE, DEL.
BENITO JUAREZ,
CIUDAD DE MEXICO CMX 03100 MEXICO
RFC+LAS070725BM6

Notify Party and address
LOGWIN AIR + OCEAN MEXICO SA DE CV
AV. COYOACAN 1622,TORRE 3, NIVEL 2,
OFICINA 201, COLONIA DEL VALLE, DEL.
BENITO JUAREZ,
CIUDAD DE MEXICO CMX 03100 MEXICO
+525515602680

B/L No.
VER284537 - A



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/1629

Copy

		Place of receipt HAMBURG, GERMANY CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG, GERMANY	
Port of discharge VERACRUZ, MEXICO	Place of delivery VERACRUZ, MEXICO CFS	Freight payable HAMBURG	Number of original Bills of Lading 0/ZERO
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain
CARGO DETAILS AS PER ATTACHED STATEMENT			
		Gross weight, kg.	Measurement, m ³

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA,C.P. 06700 MEXICO D.F.
TEL:005255146915,FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

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Place and date of issue
HAMBURG 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
VER284520 1050396 COMERCIALIZADORA DE MAQUINARIA INDUSTRIAL MAQUIMEX 97113 MERIDA (YUCATAN)/ MEXICO VIA PORT VERACRUZ P/O#CMI2305097A3 (1050396) MADE IN GERMANY STOWED INTO CONTAINER NO.: HJMU1537764	1 PACKAGE	PARTS FOR FORKLIFT TRUCK ATTACHMENT **HSCODE: 843120** **HSCODE: 84312000**		241,000	1,214
VER284537 SMURFIT CARTON Y PAPEL DE MEXICO S. DE R.L. DE C.V. SALES ORDER NUMBERS: 30829159-10,30829159 -20,30829159-30, 30829159-40,30829159 -50,30829159-60, 30828943-10,30829143 -20,,30829154-10 30829154-20,30829050 -60,30829050-70 STOWED INTO CONTAINER NO.: MRSU4155347	12 PACKAGES	TEXTIL INDUSTRIAL PARA USO EN MAQUINAS DE FABRICAR PAPEL PARTIDA ARANCELARIA: 591132 OC4012711-4012826 **HSCODE: 591132**		2219,000	10,085
VER284169 6820P05884,AB2100776 1 LOADING REFERENCE 869332 STOWED INTO CONTAINER NO.: GCXU5758980	1 PACKAGE	QUICKLINK WIRE **HSCODE: 847989**		1231,000	3,749
TOTAL		14 PACKAGE		3691,000 KGS	15,048 CBM

- A

Shipper
GEBRUEDER WEISS GMBH AIR & SEA TERMINAL
SENDERSTRASSE 34, P.O. BOX 40
6960 WOLFURT-BAHNHOF
AUSTRIA

B/L No.
VER284546



SACO SHIPPING LINE LTD

Consigned to order of
SEA CARGO LOGISTICS S.A DE C.V.
LEIBNITZ 117, ANZURES, MIGUEL HIDALGO
CIUDAD DE MEXICO, CDMX 11590
MEXICO RFC: SCL090414QE0

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/162944

Copy

Notify Party and address
SEA CARGO LOGISTICS S.A DE C.V.
LEIBNITZ 117, ANZURES, MIGUEL HIDALGO
CIUDAD DE MEXICO, CDMX 11590
MEXICO RFC: SCL090414QE0

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable WIEN
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. FULTERER MEXICO S. DE R.L. DE C.V. PHONE: 0055 2345 3248 AV. PUERTO MAZATLAN 41, BODEGA 20, COL JORGE NEGRETE MX-CP 07280 GUSTAVO A MADERO	Quantity of Goods 18 PALLETS	Description of Goods (=38 BOXES ON 18 ONE WAY PALLETS) METAL DRAWERSLIDES HS CODE: 83024200	Said to contain Gross weight, kg. 8865,500 Measurement, m ³ 12,146

STOWED INTO CONTAINER NO.: HJMU1537764

SEAL : B143251

TOTAL **18 PALLETS** **8865,500 KGS** **12,146 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL: 005255146915, FAX: 005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

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Place and date of issue
WIEN 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

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SYNERGY SCIENTECH CORP. -- Advanced Hybrid Batteries
SAFETY DATA SHEET

Manufacturer's CAGE: SYNERGY

Part No. Indicator: A

Part Number/Trade Name: AHB Series- Lithium ion Polymer batteries.

Model Name: AHB571935PCT-03

Charging Voltage: 4.2V

Working Voltage: 3.7V

Nominal Capacity: 360 mAh;

Minimum Capacity: 350 mAh

Wh: 1.3Wh

Weight: Approx.: 7.7g

1. General Information

Company's Name: SYNERGY SCIENTECH CORP.

Company's Street: 6F-3, No. 9, Prosperity 1st Rd, Hsinchu Science Park, Hsinchu, Taiwan 300091 R.O.C.

Company's City: HSIN-CHU, TAIWAN

Company's Emerge Ph #: 886-3-564-3700

Company's Info Ph #: 886-3-564-3700

Record No. For Safety Entry: 001

Tot Safety Entries This Sty #: 001

Status: SMI

Date MSDS Prepared: January 1, 2023(17th Edition)

Safety Data Review Date: January 1, 2023

MSDS Preparer's Name: Dr. Brian Shen

Preparer's Company: SAME

MSDS Serial Number:

Battery Capacity:

Nominal Voltage:

Wait-hour:

Report NO:

2. Hazards Identification

Signal word



Route of Entry - Inhalation: YES

Route of Entry - Skin: YES

Route of Entry - Ingestion: YES

Health overexposure Acute and Chronic: UNDER NORM CNDTNS OF USE, THESE CHEMICALS

ARE CONTAINED IN SEALED CAN. RISK OF EXPOS OCCURS ONLY IF BATTERY IS

MECHANICALLY ABUSED. ACUTE: INHAL: CONTENTS OF OPENED BATTERY CAN CAUSE

CONTENTS OF OPENED BATTERY CAN CAUSE IRRIT.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

3. Composition/information on ingredients

Material Name. (e.g. Sn alloy)	Substance Name (e.g. Copper (Cu))	CAS No.	Percentage (%)
active material	LiCoO ₂	12190-79-3	32.62
Binder-PVDF	Polyvinylidene difluoride	24937-79-9	1.04
Conductive material	Carbon	1333-86-4	0.78
Conductive material	Carbon	1333-86-4	0.26
Foil	Aluminum	7429-90-5	4.61
active material	Carbon	1333-86-4	15.92
Binder-PVDF	Polyvinylidene difluoride	24937-79-9	1.3
conductive material	Carbon	7440-44-0	0.09
additive	Oxalic acid	144-62-7	0.05
foil	Copper	7440-50-8	7.87
electrolyte-solvent	Ethylene carbonate	96-49-1	5.06
electrolyte-solvent	Diethyl carbonate	105-58-8	3.72
electrolyte-solvent	Ethyl methyl carbonate	623-53-0	3.74
electrolyte-additive	Lithium hexafluorophosphate	21324-40-3	1.82
electrolyte-additive	1,3-propanesultone	1120-71-4	0.09
separator	Polyethylene	9002-88-4	3.62
tape-film	Polyimide	75-55-8	0.1
tape-adhesive	Acrylic	9011-14-7	0.03
tape-film	Polyester	25038-59-9	0.14
tape-adhesive	Acrylic	9011-14-7	0.03
Al bag	Nylon	32131-17-2	3.85
Al bag	Aluminum	7429-90-5	9.75
Al bag	Polypropylene	9003-07-0	2.57
tab lead	Nickel	7440-02-0	0.38
tab lead	polypropylene	9003-07-0	0.05
tab lead	Aluminum	7429-90-5	0.24
tab lead	polypropylene	9003-07-0	0.05
tab	Nickel	7440-02-0	0.22

4. First Aid Measures

Explanation Carcinogenicity: NOT RELEVANT.

Signs/Symptoms of Overexposure: SEE HEALTH HAZARDS.

Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.

WASH WITH SOAP AND WATER. EYES: IMMEDIATELY FLUSH THOROUGHLY WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION.

INGESTION: CALL MD IMMEDIATELY (FP N).

5. Fire Fighting Measures

Extinguishing Media: IN CASE OF FIRE, USE CARBON DIOXIDE OR DRY CHEMICAL EXTINGUISHERS.

Special Fire Fighting Proc: WEAR NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FPN).

Unusual Fire And Expel Hazards: NONE SPECIFIED BY MANUFACTURER.

6. Accidental Release Measures

Wear appropriate personal protective equipment. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

7. Handling and Storage

Wear suitable chemical resistant gloves, safety glasses and filtered cartridge respirator. Goggles, full face protection and other protective clothing is required if potential exists for direct exposure to liquid battery electrolyte.

In case Material is released or spilled: Carefully recover spillages with appropriate ladle and transfer to a suitably labeled, sealable container for safe disposal. Wash the spillage area neutralized with calcium hydroxide.

Wear suitable personal protection during removal of spillages.

Be stored in clearly labeled, tightly closed exclusive containers in a cool, dry area.

8. Exposure Controls/Personal Protection

Ventilation: Use local exhaust.

Protective Gloves: Wear rubber or plastic gloves.

Eye/Face Protection: Wear safety glasses, goggles or full face protections.

Respiratory Protection: Wear filtered cartridge respirator or a respirator of greater protection.

=====

9. Physical and Chemical Properties

=====

Product Type: Solid
 Appearance: Prismatic
 Odor: Odorless

=====

10. Stability and Reactivity

=====

Stability: YES
 Cond To Avoid (Stability): NONE SPECIFIED BY MANUFACTURER.
 Materials To Avoid: NONE SPECIFIED BY MANUFACTURER.
 Hazardous Decamp Products: NONE SPECIFIED BY MANUFACTURER.
 Hazardous Poly Occur: NO
 Conditions To Avoid (Poly): NOT RELEVANT.

=====

11. Toxicological Information

=====

In case electrolyte is spilled and explored with air, the HF could be released.
 May include hydrogen fluoride and carbon oxides gas.
 May cause skin and eye irritation when contacted.

=====

12. Ecological Information

=====

If the battery scrapped, it should be selected and disposed by professional company.

=====

13. Disposal Consideration

=====

Disposal should be in accordance with local, state or national legislation.

=====

14. Transport Information

=====

Air transport :Limit per package

* Shipment Requirements 30%SOC

UN 38.3 Lithium Battery		Test results	Remarks
NO	Test item	OK	Test 1 to 5 must be conducted in sequence on the same cell or battery
T1	Altitude simulation	OK	
T2	Thermal test	OK	
T3	Vibration	OK	
T4	Shock	OK	
T5	External short circuit	OK	

VER284548_1_5/6

T6	Impact	OK	
T7	Overcharge	OK	Only battery do need this test item
T8	Forced discharge	OK	For cell only

The product is not classified as dangerous under the current edition of the 64th Edition IATA dangerous goods regulations. The products are safe for air transportation and not regulated by IATA DGR. Also they comply with the PI-965 Section IA & IB and PI-966 & PI-967 Section II accordingly.

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

- The package of battery should be complied with the requirements of 188 of IMDG (40-20) or the <<Recommendations On The Transport Of Dangerous Goods-Model Regulations>>

- US Hazardous Materials Regulations 49 CFR(Code of Federal Regulations)
Sections 173.185 Lithium batteries and cells,

- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria 38.3 Lithium batteries

- UN No. 3480

If those lithium-ion batteries are packed with or contained in an equipment, then it is the responsibility of the shipper to ensure that the consignment are packed in compliance to the latest edition of the IATA Dangerous Goods Regulations section II of either Packing Instruction 966 or 967 in order for that consignment to be declared as NOT RESTRICTED (non-hazardous/non-Dangerous). If those lithium-ion batteries are packed with or contained in an equipment, UN No. is UN3481

Our products are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to all the applicable international and national governmental regulations, not limited to the above mentioned. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in accordance with UN Recommendations (T1 – T8) on the Transport of Dangerous Goods Model Regulations and the Manual of Testes and Criteria.

UN 38.3 Lithium Battery		Test results	Remarks
NO	Test item	OK	Test 1 to 5 must be conducted in sequence on the same cell or battery
T1	Altitude simulation	OK	
T2	Thermal test	OK	
T3	Vibration	OK	
T4	Shock	OK	
T5	External short circuit	OK	
T6	Impact	OK	
T7	Overcharge	OK	Only battery do need this test item
T8	Forced discharge	OK	For cell only

=====

15. Regulatory Information

See ACGIH exposure limits information as noted in Section 3.

US: This MSDS meets/exceeds OSHA requirements

International: this MSDS conforms to European Union (UN), the International Standards Organization (ISO) and the International Labor Organization (ILO) and as documented in ANSI (American National Standards Institute) Standard Z400.1-1993.

16. Other Information

Reference:

Chemical substances information: Japan Advanced Information center of Safety and Health
International Chemical Safety Cards (ICSCs); International Occupational Safety and Health
Information Centre (CIS)
2002 TLVs and BELs: American Conference of Governmental Industrial Hygienists (ACGIH)
Dangerous Goods Regulations-64th Edition : International Air Transport
Association (IATA)
IMDG Code-2020 Edition: International Maritime Organization (IMO)
- The package of battery should be complied with the requirements of 188 of IMDG (40-20) or the
<<Recommendations On The Transport Of Dangerous Goods-Model Regulations>>
Latest covered modification of the European Battery Directive 2006/66/EC and Amendment
2013/56/EU
The United Nations Economic Commission for Europe (UNECE)
MSDS of raw materials prepared by the manufactures

Material Safety Data Sheet

材料安全数据表

Name of Goods: Rechargeable Li-ion Battery

物品名称: 可充式锂离子电池组

Model and Spec.:

533543, 3.7V 800mAh 2.96Wh

型号规格:

Applicant: Chongqing VDL Electronics Co., Ltd.

委托单位: 重庆市紫建电子股份有限公司

Effective date:

2025-01-01

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Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 化学品及企业标识	
Name of Products 产品名称	Rechargeable Li-ion Battery 可充式锂离子电池组
Model/Type 型号	533543
Ratings 额定参数	3.7V 800mAh 2.96Wh
Applicant 委托单位	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of Applicant 委托单位地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
Manufacturer 生产厂商	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of manufacturer 生产厂商地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
Emergency telephone call 应急电话	+86-755-2996-1201
Prepared by 编制人	Jake Chen 陈嘉南
Reviewed by 审核人	Jemery Li 黎宗豪
Approved by 批准人	Jesse Zhang 张士杰



2. Hazards Identification 危险性概述		
Dangerous classification 物品危险分类		
Explosive risk 爆炸危险性	This article does not belong to the explosion dangerous goods 该物品不属于爆炸危险品	
Flammable risk 易燃危险性	This article does not belong to the flammable material 该物品不属于易燃危险品	
Oxidation risk 氧化危险性	This article does not belong to the oxidation of dangerous goods 该物品不属于氧化危险品	
Toxic risk 毒害危险性	This article does not belong to the toxic dangerous goods 该物品不属于毒害危险品	
Radioactive risk 放射危险性	This article does not belong to the radiation of dangerous goods 该物品不属于放射危险品	
Mordant risk 腐蚀危险性	This article does not belong to the corrosion of dangerous goods 该物品不属于腐蚀危险品	
Other risk 其他危险性	Lithium-ion batteries, The Watt-hour rating of the battery is 2.96Wh 锂离子电池，该电池额定瓦时为2.96Wh	
3. COMPOSITION INFORMATION 成分/组成信息		
Chemical Composition 化学成分	CAS No. CAS号	Weight (%) 重量百分比
Lithium cobalt oxide 钴酸锂	12190-79-3	30-40
Graphite 石墨	7782-42-5	15-20
Electrolyte 电解液	Lithium hexafluorophosphate 六氟磷酸锂	15-20
	Ethylene carbonate 碳酸乙烯酯	
	Ethyl methyl carbonate 碳酸甲乙酯	
	Diethyl carbonate 碳酸二乙酯	
PVDF 聚偏氟乙烯树脂	24937-79-9	0-1

CMC 羧甲基纤维素	9004-32-4	0-1
Aluminum 铝	7429-90-5	5-10
Copper 铜	7440-50-8	0-5
Nickel 镍	7440-02-0	0-5
Other 其他	N/A	0-5

4. First aid measures 急救措施

Once battery shell rupture, content contact with the human body will produce harm, once contact, should take the following emergency measures:

电池外壳破裂，内容物接触人体产生危害，一旦发生接触，应采取以下应急措施：

Eye:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

眼睛:

万一接触，立即用大量的清水冲洗至少15分钟，翻起上下眼睑，直到化学的残留物消失为止，迅速就医。

Skin:

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

皮肤:

万一接触，用大量水冲洗至少15分钟，同时除去污染的衣物和鞋子，迅速就医。

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

吸入:

立即从暴露处移至空气清新处，如果呼吸困难给予输氧，立即就医。

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician

食入:

饮用两杯牛奶或水。如果当事人仍然清晰可以采取催吐的方法，并且立即就医。

5. Fire-fighting measures 消防措施

Flash Point: N/A.

燃点: 不适用

Auto-Ignition Temperature: N/A.

自燃温度: 不适用

Extinguishing Media: Water, CO₂.

灭火介质: 大量水（降温），二氧化碳

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

特殊灭火程序: 自给式呼吸器

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

异常火灾或爆炸: 当电芯暴露于过热的环境中时，安全阀可能会打开。

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

燃烧产生的危险物品: 一氧化碳，二氧化碳，锂氧化物烟气。

6. Accidental release measures

泄露应急处理

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

为防止电池材料泄露或释放采取的措施

如果电池内部材料泄露，试验人员应立即撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区，清除溢出的液体，将泄露电池放进塑料袋中，然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

废弃物处置方法

建议将电池完全放电，消耗电池内部的锂金属，并且深埋于土壤中。

7. Handling and storage

操作处置和储存

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

操作处置和储存中的防范措施

禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风等温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

其他要注意的防范措施

拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。禁止短接或将电池正负极错误的安装在设备中。

8. Exposure controls/personal protection 接触控制/个人防护

Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

呼吸防护: 当电池排气阀打开时, 应尽量使通风设备开至最大, 避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下, 呼吸保护是不必要的。

Ventilation: Not necessary under conditions of normal use.

通风条件: 正常使用条件下不需要。

Protective Gloves: Not necessary under conditions of normal use.

防护手套: 正常使用条件下不需要。

Other Protective Clothing or Equipment: Not necessary under conditions of normal use.

其他防护服装或设备: 正常使用条件下不需要。

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

电池开阀试验时应做好个人防护: 呼吸防护, 防护手套, 防护服装和有护边的安全玻璃罩都是要准备的。

9. Physical and chemical properties 物理和化学特性

Appearance: Prismatic

外形: 棱柱形

Odors: If leaking, smells of medical ether.

气味: 泄漏时, 有醚的气味。

PH: Not applicable as supplied.

酸碱度: 不适用

Flash Point: Not applicable unless individual components exposed.

燃点: 除单个电芯暴露试验外其他不适用。

Flammability: Not applicable unless individual components exposed.

可燃性: 除单个电芯暴露试验外其他不适用。

Relative density: Not applicable unless individual components exposed.

相对密度: 除单个电芯暴露试验外其他不适用。

Solubility (water): Not applicable unless individual components exposed.

溶解性 (水溶性): 除单个电芯暴露试验外其他不适用。

Solubility (other): Not applicable unless individual components exposed.

溶解性 (其他): 除单个电芯暴露试验外其他不适用。

10. Stability and reactivity

稳定性和反应活性

Stability: Product is stable under conditions described in Section 7.

稳定性: 产品在第 7 节所述的条件下稳定。

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

应避免的条件: 加热 70°C 以上或焚烧。变形。毁坏。粉碎。拆卸。过充电。短路。长时间暴露在潮湿的条件下。

Materials to avoid: Oxidising agents, alkalis, water.

应避免的材料: 氧化剂, 碱, 水。

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

危险分解物: 有毒烟雾, 并可能形成过氧化物。

Hazardous Polymerization: N/A.

聚合危害: 不适用

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

如果发生泄露, 避免与强氧化剂, 无机酸, 强碱, 卤代烃接触。

11. Toxicological information

毒理学资料

Signs & symptoms: None, unless battery ruptures.

标志及症状: 无, 除非电池破裂。

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。

Inhalation: Lung irritant.

吸入: 对肺有刺激性。

Skin contact: Skin irritant.

皮肤接触: 对皮肤刺激性。

Eye contact: Eye irritant.

眼睛接触: 对眼睛有刺激性。

Ingestion: Poisoning if swallowed.

食入: 吞下中毒。

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

下列情况下健康状况会恶化: 万一发生与电池内部材料接触的事故, 轻微或严重的刺激, 都可能使皮肤出现干燥和灼烧的感觉, 并且损坏靶器官(肝脏, 肾脏)的神经。

12. Ecological information 生态学资料		
Mammalian effects: None known at present. 对哺乳动物的影响: 目前未知。 Eco-toxicity: None known at present. 生态毒性: 目前未知。 Bioaccumulation potential: Slowly Bio-degradable. 生物体内积累: 慢慢地生物降解。 Environmental fate: None known environmental hazards at present. 环境危害: 目前没有已知的环境危害。		
13. Disposal consideration 废弃处置		
Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations. 不要焚烧, 或使电池温度超过 70°C, 这种滥用可导致泄漏和/或电池爆炸。按照相应的地方性法规处理。		
14. Transport information 运输信息		
UN No. and Shipping name: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment UN编号及运输专有名称: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment Label for conveyance: Battery Mark, class 9 lithium battery or sodium ion battery hazard label (Only for UN3480), Cargo Aircraft Only Label (Only for UN3480) 运输标签: 电池标记, 第 9 类锂电池或钠离子电池危险品标签 (只适用UN3480), 仅限货机标签 (只适用UN3480) Packaging Group/包装等级: N/A/不适用 EmS No./EmS 编号: F-A, S-I Marine pollutants/海洋污染物: No/否		
ICAO/IATA	Shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions PI 965 IB, PI 966 II, PI 967 II 根据国际民用航空组织(ICAO), TI或者国际航空协会(IATA), DGR包装说明PI 965 IB, PI 966 II, PI 967 II相关规定进行空运	DGR 66 th (2025) ICAO (2025-2026 edition)
IMDG CODE	Shipped by sea in accordance with International Maritime Dangerous Code (IMDG CODE) Special Provision 188 根据《国际海运危险货物规则》(IMDG CODE)特殊规定188条款相关规定运输	IMDG CODE (Amdt. 42-24)

15. Regulation information 法规信息

Law information 法律信息

《Dangerous Goods Regulations》

《危险品规则》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《关于危险货物运输的建议书 规章范本》

《International Maritime Dangerous Goods Code》

《国际海运危险货物规则》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险品安全运输技术指令》

《Safety data sheet for chemical products-Content and order of sections》

《化学品安全技术说明书 内容和项目顺序》

《Guidance on the compilation of safety data sheet for chemical products》

《化学品安全技术说明书编写指南》

《List of Dangerous Chemical Substances 2015》

《危险化学品目录（2015）》

《Safety data sheet for chemical products-Content and order of sections》

《化学品安全技术说明书 内容和项目顺序》

《Globally Harmonized System of Classification and Labeling of Chemicals (GHS)》

《全球化学品统一分类和标签制度（全球统一制度）》

16. Other Information 其他信息

This file is only effective to the batteries (533543) provided by commissioner (Chongqing VDL Electronics Co., Ltd.) which manufactured by Chongqing VDL Electronics Co., Ltd. The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. Shenzhen NTEK New Energy Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries.

本文件仅对由委托方（重庆市紫建电子股份有限公司）提供的，并由重庆市紫建电子股份有限公司生产的电池（533543）有效。该电池的成分信息由委托方提供并承诺其完整性和准确性。用户应仔细阅读此文件，并按照正确的方法使用电池，如因电池使用不当造成的损害或损失，深圳市北测新能源技术有限公司不承担任何责任。

--End of Material Safety Data Sheet 材料安全数据表结束--

Important Notice

注意事项

1. The test report is invalid without the Report Seal of NTEK and Paging seal of NTEK.

本报告书无本公司报告专用章、骑缝章无效。

2. Nobody is allowed to photocopy or partly photocopy this test report without written permission of NTEK.

未经本试验室书面同意，不得部分地复制本报告。

3. The test report is invalid without the signatures of Approver, Reviewer and Preparer.

本报告书无批准人、审核人及编制人签名无效。

4. The report is invalid when anything of following happens – illegal transfer, reproduce, embezzlement, imposture, modification or tampering in any media form.

私自转让、复制、盗用、冒用、涂改、或以任何媒体形式篡改的报告书无效。

5. Objections to the test report must be submitted to NTEK within 15 days.

对报告书若有异议，应于收到报告之日起15天内向本公司提出。

6. The Chinese contents in this report are only for reference.

本报告中的中文内容仅供参考。

Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

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Tel 电话：400-809-9068 E-mail 邮箱：Quality@ntekbat.org.cn

Website 网址：http://www.ntekbat.org.cn

Material Safety Data Sheet

材料安全数据表

Name of Goods: Rechargeable Li-ion Battery

物品名称: 可充式锂离子电池组

Model and Spec.:

533543, 3.7V 800mAh 2.96Wh

型号规格:

Applicant: Chongqing VDL Electronics Co., Ltd.

委托单位: 重庆市紫建电子股份有限公司

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深圳市北测新能源技术有限公司

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 化学品及企业标识	
Name of Products 产品名称	Rechargeable Li-ion Battery 可充式锂离子电池组
Model/Type 型号	533543
Ratings 额定参数	3.7V 800mAh 2.96Wh
Applicant 委托单位	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of Applicant 委托单位地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
Manufacturer 生产厂商	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of manufacturer 生产厂商地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
Emergency telephone call 应急电话	+86-755-2996-1201
Prepared by 编制人	Jake Chen 陈嘉南
Reviewed by 审核人	Jemery Li 黎宗豪
Approved by 批准人	Jesse Zhang 张士杰



2. Hazards Identification 危险性概述		
Dangerous classification 物品危险分类		
Explosive risk 爆炸危险性	This article does not belong to the explosion dangerous goods 该物品不属于爆炸危险品	
Flammable risk 易燃危险性	This article does not belong to the flammable material 该物品不属于易燃危险品	
Oxidation risk 氧化危险性	This article does not belong to the oxidation of dangerous goods 该物品不属于氧化危险品	
Toxic risk 毒害危险性	This article does not belong to the toxic dangerous goods 该物品不属于毒害危险品	
Radioactive risk 放射危险性	This article does not belong to the radiation of dangerous goods 该物品不属于放射危险品	
Mordant risk 腐蚀危险性	This article does not belong to the corrosion of dangerous goods 该物品不属于腐蚀危险品	
Other risk 其他危险性	Lithium-ion batteries, The Watt-hour rating of the battery is 2.96Wh 锂离子电池，该电池额定瓦时为2.96Wh	
3. COMPOSITION INFORMATION 成分/组成信息		
Chemical Composition 化学成分	CAS No. CAS号	Weight (%) 重量百分比
Lithium cobalt oxide 钴酸锂	12190-79-3	30-40
Graphite 石墨	7782-42-5	15-20
Electrolyte 电解液	Lithium hexafluorophosphate 六氟磷酸锂	15-20
	Ethylene carbonate 碳酸乙烯酯	
	Ethyl methyl carbonate 碳酸甲乙酯	
	Diethyl carbonate 碳酸二乙酯	
PVDF 聚偏氟乙烯树脂	24937-79-9	0-1

CMC 羧甲基纤维素	9004-32-4	0-1
Aluminum 铝	7429-90-5	5-10
Copper 铜	7440-50-8	0-5
Nickel 镍	7440-02-0	0-5
Other 其他	N/A	0-5

4. First aid measures 急救措施

Once battery shell rupture, content contact with the human body will produce harm, once contact, should take the following emergency measures:

电池外壳破裂，内容物接触人体产生危害，一旦发生接触，应采取以下应急措施：

Eye:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

眼睛:

万一接触，立即用大量的清水冲洗至少15分钟，翻起上下眼睑，直到化学的残留物消失为止，迅速就医。

Skin:

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

皮肤:

万一接触，用大量水冲洗至少15分钟，同时除去污染的衣物和鞋子，迅速就医。

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

吸入:

立即从暴露处移至空气清新处，如果呼吸困难给予输氧，立即就医。

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician

食入:

饮用两杯牛奶或水。如果当事人仍然清晰可以采取催吐的方法，并且立即就医。

5. Fire-fighting measures 消防措施

Flash Point: N/A.

燃点: 不适用

Auto-Ignition Temperature: N/A.

自燃温度: 不适用

Extinguishing Media: Water, CO₂.

灭火介质: 大量水（降温），二氧化碳

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

特殊灭火程序: 自给式呼吸器

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

异常火灾或爆炸: 当电芯暴露于过热的环境中时，安全阀可能会打开。

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

燃烧产生的危险物品: 一氧化碳，二氧化碳，锂氧化物烟气。

6. Accidental release measures

泄露应急处理

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

为防止电池材料泄露或释放采取的措施

如果电池内部材料泄露，试验人员应立即撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区，清除溢出的液体，将泄露电池放进塑料袋中，然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

废弃物处置方法

建议将电池完全放电，消耗电池内部的锂金属，并且深埋于土壤中。

7. Handling and storage

操作处置和储存

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

操作处置和储存中的防范措施

禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风等温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

其他要注意的防范措施

拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。禁止短接或将电池正负极错误的安装在设备中。

8. Exposure controls/personal protection

接触控制/个人防护

Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

呼吸防护: 当电池排气阀打开时, 应尽量使通风设备开至最大, 避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下, 呼吸保护是不必要的。

Ventilation: Not necessary under conditions of normal use.

通风条件: 正常使用条件下不需要。

Protective Gloves: Not necessary under conditions of normal use.

防护手套: 正常使用条件下不需要。

Other Protective Clothing or Equipment: Not necessary under conditions of normal use.

其他防护服装或设备: 正常使用条件下不需要。

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

电池开阀试验时应做好个人防护: 呼吸防护, 防护手套, 防护服装和有护边的安全玻璃罩都是要准备的。

9. Physical and chemical properties

物理和化学特性

Appearance: Prismatic

外形: 棱柱形

Odors: If leaking, smells of medical ether.

气味: 泄漏时, 有醚的气味。

PH: Not applicable as supplied.

酸碱度: 不适用

Flash Point: Not applicable unless individual components exposed.

燃点: 除单个电芯暴露试验外其他不适用。

Flammability: Not applicable unless individual components exposed.

可燃性: 除单个电芯暴露试验外其他不适用。

Relative density: Not applicable unless individual components exposed.

相对密度: 除单个电芯暴露试验外其他不适用。

Solubility (water): Not applicable unless individual components exposed.

溶解性 (水溶性): 除单个电芯暴露试验外其他不适用。

Solubility (other): Not applicable unless individual components exposed.

溶解性 (其他): 除单个电芯暴露试验外其他不适用。

10. Stability and reactivity

稳定性和反应活性

Stability: Product is stable under conditions described in Section 7.

稳定性: 产品在第 7 节所述的条件下稳定。

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

应避免的条件: 加热 70°C 以上或焚烧。变形。毁坏。粉碎。拆卸。过充电。短路。长时间暴露在潮湿的条件下。

Materials to avoid: Oxidising agents, alkalis, water.

应避免的材料: 氧化剂, 碱, 水。

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

危险分解物: 有毒烟雾, 并可能形成过氧化物。

Hazardous Polymerization: N/A.

聚合危害: 不适用

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

如果发生泄露, 避免与强氧化剂, 无机酸, 强碱, 卤代烃接触。

11. Toxicological information

毒理学资料

Signs & symptoms: None, unless battery ruptures.

标志及症状: 无, 除非电池破裂。

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。

Inhalation: Lung irritant.

吸入: 对肺有刺激性。

Skin contact: Skin irritant.

皮肤接触: 对皮肤刺激性。

Eye contact: Eye irritant.

眼睛接触: 对眼睛有刺激性。

Ingestion: Poisoning if swallowed.

食入: 吞下中毒。

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

下列情况下健康状况会恶化: 万一发生与电池内部材料接触的事故, 轻微或严重的刺激, 都可能使皮肤出现干燥和灼烧的感觉, 并且损坏靶器官(肝脏, 肾脏)的神经。

12. Ecological information 生态学资料		
Mammalian effects: None known at present. 对哺乳动物的影响: 目前未知。 Eco-toxicity: None known at present. 生态毒性: 目前未知。 Bioaccumulation potential: Slowly Bio-degradable. 生物体内积累: 慢慢地生物降解。 Environmental fate: None known environmental hazards at present. 环境危害: 目前没有已知的环境危害。		
13. Disposal consideration 废弃处置		
Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations. 不要焚烧, 或使电池温度超过 70°C, 这种滥用可导致泄漏和/或电池爆炸。按照相应的地方性法规处理。		
14. Transport information 运输信息		
UN No. and Shipping name: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment UN编号及运输专有名称: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment Label for conveyance: Battery Mark, class 9 lithium battery or sodium ion battery hazard label (Only for UN3480), Cargo Aircraft Only Label (Only for UN3480) 运输标签: 电池标记, 第 9 类锂电池或钠离子电池危险品标签 (只适用UN3480), 仅限货机标签 (只适用UN3480) Packaging Group/包装等级: N/A/不适用 EmS No./EmS 编号: F-A, S-I Marine pollutants/海洋污染物: No/否		
ICAO/IATA	Shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions PI 965 IB, PI 966 II, PI 967 II 根据国际民用航空组织(ICAO), TI或者国际航空协会(IATA), DGR包装说明PI 965 IB, PI 966 II, PI 967 II相关规定进行空运	DGR 66 th (2025) ICAO (2025-2026 edition)
IMDG CODE	Shipped by sea in accordance with International Maritime Dangerous Code (IMDG CODE) Special Provision 188 根据《国际海运危险货物规则》(IMDG CODE)特殊规定188条款相关规定运输	IMDG CODE (Amdt. 42-24)

15. Regulation information 法规信息

Law information 法律信息

《Dangerous Goods Regulations》

《危险品规则》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《关于危险货物运输的建议书 规章范本》

《International Maritime Dangerous Goods Code》

《国际海运危险货物规则》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险品安全运输技术指令》

《Safety data sheet for chemical products-Content and order of sections》

《化学品安全技术说明书 内容和项目顺序》

《Guidance on the compilation of safety data sheet for chemical products》

《化学品安全技术说明书编写指南》

《List of Dangerous Chemical Substances 2015》

《危险化学品目录（2015）》

《Safety data sheet for chemical products-Content and order of sections》

《化学品安全技术说明书 内容和项目顺序》

《Globally Harmonized System of Classification and Labeling of Chemicals (GHS)》

《全球化学品统一分类和标签制度（全球统一制度）》

16. Other Information 其他信息

This file is only effective to the batteries (533543) provided by commissioner (Chongqing VDL Electronics Co., Ltd.) which manufactured by Chongqing VDL Electronics Co., Ltd. The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. Shenzhen NTEK New Energy Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries.

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--End of Material Safety Data Sheet 材料安全数据表结束--

Important Notice

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对报告书若有异议，应于收到报告之日起15天内向本公司提出。

6. The Chinese contents in this report are only for reference.

本报告中的中文内容仅供参考。

Shenzhen NTEK New Energy Technology Co., Ltd.

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Website 网址：http://www.ntekbat.org.cn

Material Safety Data Sheet

材料安全数据表

Name of Goods: Rechargeable Li-ion Battery

物品名称: 可充式锂离子电池组

Model and Spec.:

533543, 3.7V 800mAh 2.96Wh

型号规格:

Applicant: Chongqing VDL Electronics Co., Ltd.

委托单位: 重庆市紫建电子股份有限公司

Effective date:

2025-01-01

生效日期:

Date of issue:

2024-12-29

签发日期:

Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 化学品及企业标识	
Name of Products 产品名称	Rechargeable Li-ion Battery 可充式锂离子电池组
Model/Type 型号	533543
Ratings 额定参数	3.7V 800mAh 2.96Wh
Applicant 委托单位	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of Applicant 委托单位地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
Manufacturer 生产厂商	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of manufacturer 生产厂商地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
Emergency telephone call 应急电话	+86-755-2996-1201
Prepared by 编制人	Jake Chen 陈嘉南
Reviewed by 审核人	Jemery Li 黎宗豪
Approved by 批准人	Jesse Zhang 张士杰



2. Hazards Identification 危险性概述		
Dangerous classification 物品危险分类		
Explosive risk 爆炸危险性	This article does not belong to the explosion dangerous goods 该物品不属于爆炸危险品	
Flammable risk 易燃危险性	This article does not belong to the flammable material 该物品不属于易燃危险品	
Oxidation risk 氧化危险性	This article does not belong to the oxidation of dangerous goods 该物品不属于氧化危险品	
Toxic risk 毒害危险性	This article does not belong to the toxic dangerous goods 该物品不属于毒害危险品	
Radioactive risk 放射危险性	This article does not belong to the radiation of dangerous goods 该物品不属于放射危险品	
Mordant risk 腐蚀危险性	This article does not belong to the corrosion of dangerous goods 该物品不属于腐蚀危险品	
Other risk 其他危险性	Lithium-ion batteries, The Watt-hour rating of the battery is 2.96Wh 锂离子电池，该电池额定瓦时为2.96Wh	
3. COMPOSITION INFORMATION 成分/组成信息		
Chemical Composition 化学成分	CAS No. CAS号	Weight (%) 重量百分比
Lithium cobalt oxide 钴酸锂	12190-79-3	30-40
Graphite 石墨	7782-42-5	15-20
Electrolyte 电解液	Lithium hexafluorophosphate 六氟磷酸锂	15-20
	Ethylene carbonate 碳酸乙烯酯	
	Ethyl methyl carbonate 碳酸甲乙酯	
	Diethyl carbonate 碳酸二乙酯	
PVDF 聚偏氟乙烯树脂	24937-79-9	0-1

CMC 羧甲基纤维素	9004-32-4	0-1
Aluminum 铝	7429-90-5	5-10
Copper 铜	7440-50-8	0-5
Nickel 镍	7440-02-0	0-5
Other 其他	N/A	0-5

4. First aid measures 急救措施

Once battery shell rupture, content contact with the human body will produce harm, once contact, should take the following emergency measures:

电池外壳破裂，内容物接触人体产生危害，一旦发生接触，应采取以下应急措施：

Eye:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

眼睛:

万一接触，立即用大量的清水冲洗至少15分钟，翻起上下眼睑，直到化学的残留物消失为止，迅速就医。

Skin:

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

皮肤:

万一接触，用大量水冲洗至少15分钟，同时除去污染的衣物和鞋子，迅速就医。

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

吸入:

立即从暴露处移至空气清新处，如果呼吸困难给予输氧，立即就医。

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician

食入:

饮用两杯牛奶或水。如果当事人仍然清晰可以采取催吐的方法，并且立即就医。

5. Fire-fighting measures 消防措施

Flash Point: N/A.

燃点: 不适用

Auto-Ignition Temperature: N/A.

自燃温度: 不适用

Extinguishing Media: Water, CO₂.

灭火介质: 大量水（降温），二氧化碳

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

特殊灭火程序: 自给式呼吸器

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

异常火灾或爆炸: 当电芯暴露于过热的环境中时，安全阀可能会打开。

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

燃烧产生的危险物品: 一氧化碳，二氧化碳，锂氧化物烟气。

6. Accidental release measures

泄露应急处理

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

为防止电池材料泄露或释放采取的措施

如果电池内部材料泄露，试验人员应立即撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区，清除溢出的液体，将泄露电池放进塑料袋中，然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

废弃物处置方法

建议将电池完全放电，消耗电池内部的锂金属，并且深埋于土壤中。

7. Handling and storage

操作处置和储存

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

操作处置和储存中的防范措施

禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风等温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

其他要注意的防范措施

拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。禁止短接或将电池正负极错误的安装在设备中。

8. Exposure controls/personal protection

接触控制/个人防护

Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

呼吸防护: 当电池排气阀打开时, 应尽量使通风设备开至最大, 避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下, 呼吸保护是不必要的。

Ventilation: Not necessary under conditions of normal use.

通风条件: 正常使用条件下不需要。

Protective Gloves: Not necessary under conditions of normal use.

防护手套: 正常使用条件下不需要。

Other Protective Clothing or Equipment: Not necessary under conditions of normal use.

其他防护服装或设备: 正常使用条件下不需要。

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

电池开阀试验时应做好个人防护: 呼吸防护, 防护手套, 防护服装和有护边的安全玻璃罩都是要准备的。

9. Physical and chemical properties

物理和化学特性

Appearance: Prismatic

外形: 棱柱形

Odors: If leaking, smells of medical ether.

气味: 泄漏时, 有醚的气味。

PH: Not applicable as supplied.

酸碱度: 不适用

Flash Point: Not applicable unless individual components exposed.

燃点: 除单个电芯暴露试验外其他不适用。

Flammability: Not applicable unless individual components exposed.

可燃性: 除单个电芯暴露试验外其他不适用。

Relative density: Not applicable unless individual components exposed.

相对密度: 除单个电芯暴露试验外其他不适用。

Solubility (water): Not applicable unless individual components exposed.

溶解性 (水溶性): 除单个电芯暴露试验外其他不适用。

Solubility (other): Not applicable unless individual components exposed.

溶解性 (其他): 除单个电芯暴露试验外其他不适用。

10. Stability and reactivity

稳定性和反应活性

Stability: Product is stable under conditions described in Section 7.

稳定性: 产品在第 7 节所述的条件下稳定。

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

应避免的条件: 加热 70°C 以上或焚烧。变形。毁坏。粉碎。拆卸。过充电。短路。长时间暴露在潮湿的条件下。

Materials to avoid: Oxidising agents, alkalis, water.

应避免的材料: 氧化剂, 碱, 水。

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

危险分解物: 有毒烟雾, 并可能形成过氧化物。

Hazardous Polymerization: N/A.

聚合危害: 不适用

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

如果发生泄露, 避免与强氧化剂, 无机酸, 强碱, 卤代烃接触。

11. Toxicological information

毒理学资料

Signs & symptoms: None, unless battery ruptures.

标志及症状: 无, 除非电池破裂。

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。

Inhalation: Lung irritant.

吸入: 对肺有刺激性。

Skin contact: Skin irritant.

皮肤接触: 对皮肤刺激性。

Eye contact: Eye irritant.

眼睛接触: 对眼睛有刺激性。

Ingestion: Poisoning if swallowed.

食入: 吞下中毒。

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

下列情况下健康状况会恶化: 万一发生与电池内部材料接触的事故, 轻微或严重的刺激, 都可能使皮肤出现干燥和灼烧的感觉, 并且损坏靶器官(肝脏, 肾脏)的神经。

12. Ecological information 生态学资料		
Mammalian effects: None known at present. 对哺乳动物的影响: 目前未知。 Eco-toxicity: None known at present. 生态毒性: 目前未知。 Bioaccumulation potential: Slowly Bio-degradable. 生物体内积累: 慢慢地生物降解。 Environmental fate: None known environmental hazards at present. 环境危害: 目前没有已知的环境危害。		
13. Disposal consideration 废弃处置		
Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations. 不要焚烧, 或使电池温度超过 70°C, 这种滥用可导致泄漏和/或电池爆炸。按照相应的地方性法规处理。		
14. Transport information 运输信息		
UN No. and Shipping name: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment UN编号及运输专有名称: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment Label for conveyance: Battery Mark, class 9 lithium battery or sodium ion battery hazard label (Only for UN3480), Cargo Aircraft Only Label (Only for UN3480) 运输标签: 电池标记, 第 9 类锂电池或钠离子电池危险品标签 (只适用UN3480), 仅限货机标签 (只适用UN3480) Packaging Group/包装等级: N/A/不适用 EmS No./EmS 编号: F-A, S-I Marine pollutants/海洋污染物: No/否		
ICAO/IATA	Shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions PI 965 IB, PI 966 II, PI 967 II 根据国际民用航空组织(ICAO), TI或者国际航空协会(IATA), DGR包装说明PI 965 IB, PI 966 II, PI 967 II相关规定进行空运	DGR 66 th (2025) ICAO (2025-2026 edition)
IMDG CODE	Shipped by sea in accordance with International Maritime Dangerous Code (IMDG CODE) Special Provision 188 根据《国际海运危险货物规则》(IMDG CODE)特殊规定188条款相关规定运输	IMDG CODE (Amdt. 42-24)

15. Regulation information 法规信息

Law information 法律信息

《Dangerous Goods Regulations》

《危险品规则》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《关于危险货物运输的建议书 规章范本》

《International Maritime Dangerous Goods Code》

《国际海运危险货物规则》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险品安全运输技术指令》

《Safety data sheet for chemical products-Content and order of sections》

《化学品安全技术说明书 内容和项目顺序》

《Guidance on the compilation of safety data sheet for chemical products》

《化学品安全技术说明书编写指南》

《List of Dangerous Chemical Substances 2015》

《危险化学品目录（2015）》

《Safety data sheet for chemical products-Content and order of sections》

《化学品安全技术说明书 内容和项目顺序》

《Globally Harmonized System of Classification and Labeling of Chemicals (GHS)》

《全球化学品统一分类和标签制度（全球统一制度）》

16. Other Information 其他信息

This file is only effective to the batteries (533543) provided by commissioner (Chongqing VDL Electronics Co., Ltd.) which manufactured by Chongqing VDL Electronics Co., Ltd. The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. Shenzhen NTEK New Energy Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries.

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--End of Material Safety Data Sheet 材料安全数据表结束--

Important Notice

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Shenzhen NTEK New Energy Technology Co., Ltd.

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Website 网址：http://www.ntekbat.org.cn



REPORT No.: SZ24110136D04A

Material Safety Data Sheet

APPLICANT : Sonova Consumer Hearing GmbH

ADDRESS : Am Labor 1, 30900 Wedemark, Germany

BRAND NAME : N/A

SAMPLE NAME : MOMENTUM True Wireless 4 Charging case

MODEL NAME : MTW4 C

ISSUE DATE : 2025-01-06



Edited by : Tao Qing
Tao Qing

Approved by : Li Dong
Li Dong

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REPORT No.: SZ24110136D04A

1. Chemical Product and Company Identification

Product Name	MOMENTUM True Wireless 4 Charging case
Model Name	MTW4 C
Rating	3.6 V, 820 mAh, 2.952 Wh
Manufacturer	PT OSI Electronics
Manufacturer Address	Cammo Industrial Park Block G No. 16, Batam Centre, Batam 29461 Indonesia
Emergency Telephone Number	86-13922903352
Factory	PT OSI Electronics
Factory Address	Cammo Industrial Park Block G No. 16, Batam Centre, Batam 29461 Indonesia

2. Hazards Identification

Route(s) of Entry

There is no hazard when the measures for handling and storage are followed.

Signs and Symptoms of exposure

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

OSHA Hazard communication: this material is not considered hazardous by the OSHA

Hazard communication Standard 29CFR 1910.120.

Carcinogenicity (NTP): Not listed

Carcinogenicity (IARC): Not listed

Carcinogenicity (OSHA): Not listed

Special hazards for human health and environment

There is no hazard when the measures for handling and storage are followed.

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

3. Composition Information

Hazardous Ingredients	CAS Number	Approximate% of total weight
NiCoMn	182442-95-1	<40
Polyvinylidene fluoride	24937-79-9	<2
Graphite powder	7782-42-5	<30
Electrolyte	21324-40-3	<20



REPORT No.: SZ24110136D04A

Hazardous Ingredients	CAS Number	Approximate% of total weight
Polyethylene	9002-88-4	0.5~5
Copper foil	7440-50-8	<10
Nickel	7440-02-0	0.5~5
Aluminum foil	7429-90-5	0.5~5

4. First Aid Measures

General information

The following first aid measures are required only in case exposure to interior battery components after damage of the external battery casing.

Undamaged, closed cells do not represent a danger to the health.

Skin contact

If skin contact with contents of open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Eye contact

If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.

Inhalation

If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice

Ingestion

If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Call a physician.

5. Fire Fighting Measures

Suitable extinguishing media

Cold water and dry powder in large amount are applicable.

Use metal fire extinction powder or dry sand if only few cells are involved

Specific Hazards arising from the chemical

May form hydrofluoric acid if electrolyte comes into contact with water.



REPORT No.: SZ24110136D04A

In case of fire, the formation of the following flue gases cannot be excluded: Hydrogen fluoride (HF), Carbon monoxide and carbon dioxide.

Protective Equipment and precautions for firefighters

As for any fire, evacuate the area and fight the fire from a safe distance.

Wear a pressure-demand, self-contained breathing apparatus and full protective gear.

Fight fire from a protected location or a safe distance.

Flammable Properties

In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

6. Accidental Release Measures

Personal Precautions

Restrict access to area until completion of clean-up.

Do not touch the spilled material.

Wear adequate personal protective equipment as indicated in Section 8

Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

Methods for cleaning up/taking up

Take up mechanically and send for disposal.

Methods and materials for containment

Stop the leak if safe to do so.

Contain the spilled liquid with dry sand or earth.

Clean up spills immediately.

7. Handling and Storage

Handling**Advice on safe handling**

Avoid short circuiting the cell. Avoid mechanical damage of the cell.

Do not open or disassemble.

Don't handle Lithium Ion Battery with metalwork.

Advice on protection against fire and explosion,

Ensure good ventilation/exhaustion at the workplace.

Storage

Requirement for storage rooms and vessels

Store the cell at temperature $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

In case of long period storage (more than 3 months), store the cell at temperature range of $-10^{\circ}\text{C} \sim +20^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is

Keep out of reach of children.

Do not expose Lithium Ion Battery to heat of fire.

Avoid storage in direct sunlight.

Do not store together with oxidizing and acidic materials.

Safe guard procedures

Engineering Controls

Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.

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

Personal Protective Equipment

Respiratory Protection: Not necessary under normal conditions.

Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery.

Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.

Other Protective Equipment

Have a safety shower and eye wash fountain readily available in the immediate work area.

Hygiene Measures

Do not eat, drink, or smoke in work area.

Appearance

Appearance & Odor	Prismatic, Odorless
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Important health, safety and environmental information

Change in condition	Not available
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PH, with indication of the concentration	Not available
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Melting point/freezing point	Not available
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Boiling Point, initial boiling point and boiling range	Not available
--	---------------

Flash Point	Not available
-------------	---------------

Upper/Lower flammability or explosive limits	Not available
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REPORT No.: SZ24110136D04A

Density/relative density	Not available
Solubility in Water	Insoluble
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Flammability (soil, gas)	Not available
Viscosity	Not available

10. Stability and Reactivity

Stability

The product is stable under normal conditions.

Conditions to avoid

Do not subject Lithium Ion Battery to mechanical shock.

Vibration encountered during transportation does not cause leakage, fire or explosion.

Do not disassemble, crush, short or install with incorrect polarity.

Avoid mechanical or electrical abuse.

Materials to avoid

No materials to be especially mentioned

Hazardous decomposition products

In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

Possibility of Hazardous Reactions

Will not occur

Additional information

No decomposition if stored and applied as directed.

11. Toxicological Information

Irritation

Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.

Sensitization

Not Available

Neurological Effects

Not Available

Reproductive Toxicity

Not Available

Mutagenicity (Genetic Effects)

Not Available

Toxicologically Synergistic Materials

MORLAB

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E-mail: service@morlab.cn



REPORT No.: SZ24110136D04A

Not Available

12. Ecological Information

Further information

Ecological injuries are not known or expected under normal use.

Do not flush into surface water or sanitary sewer system.

13. Disposal Considerations

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in Federal, State or Local requirements of hazardous waste treatment and hazardous waste transportation.

14. Transport Information

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

- The International Maritime Dangerous Goods (IMDG) Code by International Maritime Organization (IMO), Dangerous Goods Regulations (DGR) by International Air Transport Association (IATA) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (TI) by International Civil Aviation Organization (ICAO). These regulations are based on the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.
- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing Instruction 965-967, Section IB or II (2025-2026 Edition).
- The International Air Transport Association (IATA) Dangerous Goods Regulations, Packing Instruction 965-967, Section IB or II (66th Edition, 2025). For cells, the Watt-hour rating should not be more than 20Wh; For batteries, the Watt-hour rating should not be more than 100Wh. Watt-hour rating must be marked on the outside of the battery case.
- The International Maritime Dangerous Goods (IMDG) Code (2024 Edition), [Special provision 188, 230].
- The US Hazardous Materials Regulations 49 CFR (Code of Federal Regulations) Sections 173-185 Lithium batteries and cells.
- The UN classification number: Class 9 3480(lithium ion batteries) / 3481(lithium ion batteries contained in equipment or lithium ion batteries packed with equipment).
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, ST/SG/AC.10/11/ Rev.8, section 38.3 Lithium batteries.



REPORT No.: SZ24110136D04A

15. Regulatory Information

Regulatory information EU

Labeling

Hazardous components which must be listed on the label

As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

According to Directive 2012/19/EU, the batteries have to be marked with the crossed wheel bin symbol.

According to Dangerous Goods Regulations, the battery packs have to be marked with the Watt-hour rating.

U.S. Regulations

National Inventory TSCA

All of the components are listed on the TSCA inventory.

SARA

To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

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.

DISCLAIMER

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchant ability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental consequential or exemplary damages, howsoever arising from using the above information.

The original report SZ24110136D04 has been replaced by the SZ24110136D04A. Reason for change: Amend the manufacturer and factory.

— End of Material Safety Data Sheet —



REPORT No.: SZ24110137D01

Material Safety Data Sheet

APPLICANT : Sonova Consumer Hearing GmbH
ADDRESS : Am Labor 1, 30900 Wedemark, Germany
BRAND NAME : N/A
SAMPLE NAME : Rechargeable Lithium Cell
MODEL NAME : MC1254S
ISSUE DATE : 2025-01-03



Edited by : Tao Qing
Tao Qing
Approved by : Li Dong
Li Dong

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REPORT No.: SZ24110137D01

1. Chemical Product and Company Identification

Product Name	Rechargeable Lithium Cell
Model Name	MC1254S
Rating	3.8 V, 72 mAh, 0.274 Wh
Manufacturer	Changzhou Weizhou Electronic Technology Co., Ltd.
Manufacturer Address	No. 111, Pinghu Road, Jintan District, Changzhou City, Jiangsu Province, P. R. China
Emergency Telephone Number	+86-519-82205868
Factory	Changzhou Weizhou Electronic Technology Co., Ltd.
Factory Address	No. 111, Pinghu Road, Jintan District, Changzhou City, Jiangsu Province, P. R. China

2. Hazards Identification

Route(s) of Entry

There is no hazard when the measures for handling and storage are followed.

Signs and Symptoms of exposure

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

OSHA Hazard communication: this material is not considered hazardous by the OSHA

Hazard communication Standard 29CFR 1910.120.

Carcinogenicity (NTP): Not listed

Carcinogenicity (IARC): Not listed

Carcinogenicity (OSHA): Not listed

Special hazards for human health and environment

There is no hazard when the measures for handling and storage are followed.

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

3. Composition Information

Hazardous Ingredients	CAS Number	Approximate% of total weight
Lithium Cobalt Oxide	12190-79-3	29
Polypropylene	9003-07-0	10
Stainless Steel	12597-68-1	16
Organic Solvents	-	13



REPORT No.: SZ24110137D01

Hazardous Ingredients	CAS Number	Approximate% of total weight
Iron	7439-89-6	31
Copper	7440-50-8	
Aluminum	7429-90-5	
Salts	-	1

4. First Aid Measures

General information

The following first aid measures are required only in case exposure to interior battery components after damage of the external battery casing.

Undamaged, closed cells do not represent a danger to the health.

Skin contact

If skin contact with contents of open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Eye contact

If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.

Inhalation

If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice

Ingestion

If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Call a physician.

5. Fire Fighting Measures

Suitable extinguishing media

Cold water and dry powder in large amount are applicable.

Use metal fire extinction powder or dry sand if only few cells are involved

Specific Hazards arising from the chemical

May form hydrofluoric acid if electrolyte comes into contact with water.



REPORT No.: SZ24110137D01

In case of fire, the formation of the following flue gases cannot be excluded: Hydrogen fluoride (HF), Carbon monoxide and carbon dioxide.

Protective Equipment and precautions for firefighters

As for any fire, evacuate the area and fight the fire from a safe distance.

Wear a pressure-demand, self-contained breathing apparatus and full protective gear.

Fight fire from a protected location or a safe distance.

Flammable Properties

In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

6. Accidental Release Measures

Personal Precautions

Restrict access to area until completion of clean-up.

Do not touch the spilled material.

Wear adequate personal protective equipment as indicated in Section 8

Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

Methods for cleaning up/taking up

Take up mechanically and send for disposal.

Methods and materials for containment

Stop the leak if safe to do so.

Contain the spilled liquid with dry sand or earth.

Clean up spills immediately.

7. Handling and Storage

Handling

Advice on safe handling

Avoid short circuiting the cell. Avoid mechanical damage of the cell.

Do not open or disassemble.

Don't handle Lithium Ion Battery with metalwork.

Advice on protection against fire and explosion,

Ensure good ventilation/exhaustion at the workplace.

Storage

Requirement for storage rooms and vessels

Store the cell at temperature $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

In case of long period storage (more than 3 months), store the cell at temperature range of $-10^{\circ}\text{C} \sim +20^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is



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assumed to be 80% or more.

Do not storage Lithium Ion Battery haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects

Keep out of reach of children.

Do not expose Lithium Ion Battery to heat of fire.

Avoid storage in direct sunlight.

Do not store together with oxidizing and acidic materials.

8. Exposure Controls/Personal Protection

Safe guard procedures

Engineering Controls

Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.

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

Personal Protective Equipment

Respiratory Protection: Not necessary under normal conditions.

Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery.

Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.

Other Protective Equipment

Have a safety shower and eye wash fountain readily available in the immediate work area.

Hygiene Measures

Do not eat, drink, or smoke in work area.

9. Physical and Chemical Properties

Appearance

Appearance & Odor

Prismatic, Odorless

Important health, safety and environmental information

Change in condition	Not available
PH, with indication of the concentration	Not available
Melting point/freezing point	Not available
Boiling Point, initial boiling point and boiling range	Not available
Flash Point	Not available
Upper/Lower flammability or explosive limits	Not available



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Density/relative density	Not available
Solubility in Water	Insoluble
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Flammability (soil, gas)	Not available
Viscosity	Not available

10. Stability and Reactivity

Stability

The product is stable under normal conditions.

Conditions to avoid

Do not subject Lithium Ion Battery to mechanical shock.

Vibration encountered during transportation does not cause leakage, fire or explosion.

Do not disassemble, crush, short or install with incorrect polarity.

Avoid mechanical or electrical abuse.

Materials to avoid

No materials to be especially mentioned

Hazardous decomposition products

In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

Possibility of Hazardous Reactions

Will not occur

Additional information

No decomposition if stored and applied as directed.

11. Toxicological Information

Irritation

Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.

Sensitization

Not Available

Neurological Effects

Not Available

Reproductive Toxicity

Not Available

Mutagenicity (Genetic Effects)

Not Available

Toxicologically Synergistic Materials

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E-mail: service@morlab.cn



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Not Available

12. Ecological Information

Further information

Ecological injuries are not known or expected under normal use.

Do not flush into surface water or sanitary sewer system.

13. Disposal Considerations

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in Federal, State or Local requirements of hazardous waste treatment and hazardous waste transportation.

14. Transport Information

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

- The International Maritime Dangerous Goods (IMDG) Code by International Maritime Organization (IMO), Dangerous Goods Regulations (DGR) by International Air Transport Association (IATA) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (TI) by International Civil Aviation Organization (ICAO). These regulations are based on the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.
- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing Instruction 965-967, Section IB or II (2025-2026 Edition).
- The International Air Transport Association (IATA) Dangerous Goods Regulations, Packing Instruction 965-967, Section IB or II (66th Edition, 2025). For cells, the Watt-hour rating should not be more than 20Wh; For batteries, the Watt-hour rating should not be more than 100Wh. Watt-hour rating must be marked on the outside of the battery case.
- The International Maritime Dangerous Goods (IMDG) Code (2024 Edition), [Special provision 188, 230].
- The US Hazardous Materials Regulations 49 CFR (Code of Federal Regulations) Sections 173-185 Lithium batteries and cells.
- The UN classification number: Class 9 3480(lithium ion batteries) / 3481(lithium ion batteries contained in equipment or lithium ion batteries packed with equipment).
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, ST/SG/AC.10/11/Rev.7/Amend.1, section 38.3 Lithium batteries.



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15. Regulatory Information

Regulatory information EU

Labeling

Hazardous components which must be listed on the label

As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

According to Directive 2012/19/EU, the batteries have to be marked with the crossed wheel bin symbol.

According to Dangerous Goods Regulations, the battery packs have to be marked with the Watt-hour rating.

U.S. Regulations

National Inventory TSCA

All of the components are listed on the TSCA inventory.

SARA

To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

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.

DISCLAIMER

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchant ability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental consequential or exemplary damages, howsoever arising from using the above information.

— End of Material Safety Data Sheet —



REPORT No.: SZ24110136D04A

Material Safety Data Sheet

APPLICANT : Sonova Consumer Hearing GmbH

ADDRESS : Am Labor 1, 30900 Wedemark, Germany

BRAND NAME : N/A

SAMPLE NAME : MOMENTUM True Wireless 4 Charging case

MODEL NAME : MTW4 C

ISSUE DATE : 2025-01-06



Edited by : Tao Qing
Tao Qing

Approved by : Li Dong
Li Dong

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1. Chemical Product and Company Identification

Product Name	MOMENTUM True Wireless 4 Charging case
Model Name	MTW4 C
Rating	3.6 V, 820 mAh, 2.952 Wh
Manufacturer	PT OSI Electronics
Manufacturer Address	Cammo Industrial Park Block G No. 16, Batam Centre, Batam 29461 Indonesia
Emergency Telephone Number	86-13922903352
Factory	PT OSI Electronics
Factory Address	Cammo Industrial Park Block G No. 16, Batam Centre, Batam 29461 Indonesia

2. Hazards Identification

Route(s) of Entry

There is no hazard when the measures for handling and storage are followed.

Signs and Symptoms of exposure

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

OSHA Hazard communication: this material is not considered hazardous by the OSHA

Hazard communication Standard 29CFR 1910.120.

Carcinogenicity (NTP): Not listed

Carcinogenicity (IARC): Not listed

Carcinogenicity (OSHA): Not listed

Special hazards for human health and environment

There is no hazard when the measures for handling and storage are followed.

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

3. Composition Information

Hazardous Ingredients	CAS Number	Approximate% of total weight
NiCoMn	182442-95-1	<40
Polyvinylidene fluoride	24937-79-9	<2
Graphite powder	7782-42-5	<30
Electrolyte	21324-40-3	<20



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Hazardous Ingredients	CAS Number	Approximate% of total weight
Polyethylene	9002-88-4	0.5~5
Copper foil	7440-50-8	<10
Nickel	7440-02-0	0.5~5
Aluminum foil	7429-90-5	0.5~5

4. First Aid Measures

General information

The following first aid measures are required only in case exposure to interior battery components after damage of the external battery casing.

Undamaged, closed cells do not represent a danger to the health.

Skin contact

If skin contact with contents of open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Eye contact

If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.

Inhalation

If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice

Ingestion

If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Call a physician.

5. Fire Fighting Measures

Suitable extinguishing media

Cold water and dry powder in large amount are applicable.

Use metal fire extinction powder or dry sand if only few cells are involved

Specific Hazards arising from the chemical

May form hydrofluoric acid if electrolyte comes into contact with water.



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In case of fire, the formation of the following flue gases cannot be excluded: Hydrogen fluoride (HF), Carbon monoxide and carbon dioxide.

Protective Equipment and precautions for firefighters

As for any fire, evacuate the area and fight the fire from a safe distance.

Wear a pressure-demand, self-contained breathing apparatus and full protective gear.

Fight fire from a protected location or a safe distance.

Flammable Properties

In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

6. Accidental Release Measures

Personal Precautions

Restrict access to area until completion of clean-up.

Do not touch the spilled material.

Wear adequate personal protective equipment as indicated in Section 8

Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

Methods for cleaning up/taking up

Take up mechanically and send for disposal.

Methods and materials for containment

Stop the leak if safe to do so.

Contain the spilled liquid with dry sand or earth.

Clean up spills immediately.

7. Handling and Storage

Handling

Advice on safe handling

Avoid short circuiting the cell. Avoid mechanical damage of the cell.

Do not open or disassemble.

Don't handle Lithium Ion Battery with metalwork.

Advice on protection against fire and explosion,

Ensure good ventilation/exhaustion at the workplace.

Storage

Requirement for storage rooms and vessels

Store the cell at temperature $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

In case of long period storage (more than 3 months), store the cell at temperature range of $-10^{\circ}\text{C} \sim +20^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is

Keep out of reach of children.

Do not expose Lithium Ion Battery to heat of fire.

Avoid storage in direct sunlight.

Do not store together with oxidizing and acidic materials.

Safe guard procedures

Engineering Controls

Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.

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

Personal Protective Equipment

Respiratory Protection: Not necessary under normal conditions.

Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery.

Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.

Other Protective Equipment

Have a safety shower and eye wash fountain readily available in the immediate work area.

Hygiene Measures

Do not eat, drink, or smoke in work area.

Appearance

Appearance & Odor	Prismatic, Odorless
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Important health, safety and environmental information

Change in condition	Not available
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PH, with indication of the concentration	Not available
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Melting point/freezing point	Not available
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Boiling Point, initial boiling point and boiling range	Not available
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Flash Point	Not available
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Upper/Lower flammability or explosive limits	Not available
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REPORT No.: SZ24110136D04A

Density/relative density	Not available
Solubility in Water	Insoluble
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Flammability (soil, gas)	Not available
Viscosity	Not available

10. Stability and Reactivity

Stability

The product is stable under normal conditions.

Conditions to avoid

Do not subject Lithium Ion Battery to mechanical shock.

Vibration encountered during transportation does not cause leakage, fire or explosion.

Do not disassemble, crush, short or install with incorrect polarity.

Avoid mechanical or electrical abuse.

Materials to avoid

No materials to be especially mentioned

Hazardous decomposition products

In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

Possibility of Hazardous Reactions

Will not occur

Additional information

No decomposition if stored and applied as directed.

11. Toxicological Information

Irritation

Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.

Sensitization

Not Available

Neurological Effects

Not Available

Reproductive Toxicity

Not Available

Mutagenicity (Genetic Effects)

Not Available

Toxicologically Synergistic Materials

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REPORT No.: SZ24110136D04A

Not Available

12. Ecological Information

Further information

Ecological injuries are not known or expected under normal use.

Do not flush into surface water or sanitary sewer system.

13. Disposal Considerations

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in Federal, State or Local requirements of hazardous waste treatment and hazardous waste transportation.

14. Transport Information

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

- The International Maritime Dangerous Goods (IMDG) Code by International Maritime Organization (IMO), Dangerous Goods Regulations (DGR) by International Air Transport Association (IATA) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (TI) by International Civil Aviation Organization (ICAO). These regulations are based on the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.
- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing Instruction 965-967, Section IB or II (2025-2026 Edition).
- The International Air Transport Association (IATA) Dangerous Goods Regulations, Packing Instruction 965-967, Section IB or II (66th Edition, 2025). For cells, the Watt-hour rating should not be more than 20Wh; For batteries, the Watt-hour rating should not be more than 100Wh. Watt-hour rating must be marked on the outside of the battery case.
- The International Maritime Dangerous Goods (IMDG) Code (2024 Edition), [Special provision 188, 230].
- The US Hazardous Materials Regulations 49 CFR (Code of Federal Regulations) Sections 173-185 Lithium batteries and cells.
- The UN classification number: Class 9 3480(lithium ion batteries) / 3481(lithium ion batteries contained in equipment or lithium ion batteries packed with equipment).
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, ST/SG/AC.10/11/ Rev.8, section 38.3 Lithium batteries.



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15. Regulatory Information

Regulatory information EU

Labeling

Hazardous components which must be listed on the label

As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

According to Directive 2012/19/EU, the batteries have to be marked with the crossed wheel bin symbol.

According to Dangerous Goods Regulations, the battery packs have to be marked with the Watt-hour rating.

U.S. Regulations

National Inventory TSCA

All of the components are listed on the TSCA inventory.

SARA

To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

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.

DISCLAIMER

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchant ability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental consequential or exemplary damages, howsoever arising from using the above information.

The original report SZ24110136D04 has been replaced by the SZ24110136D04A. Reason for change: Amend the manufacturer and factory.

— End of Material Safety Data Sheet —



REPORT No.: SZ24110137D01

Material Safety Data Sheet

APPLICANT : Sonova Consumer Hearing GmbH
ADDRESS : Am Labor 1, 30900 Wedemark, Germany
BRAND NAME : N/A
SAMPLE NAME : Rechargeable Lithium Cell
MODEL NAME : MC1254S
ISSUE DATE : 2025-01-03



Edited by : Tao Qing
Tao Qing
Approved by : Li Dong
Li Dong

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REPORT No.: SZ24110137D01

1. Chemical Product and Company Identification

Product Name	Rechargeable Lithium Cell
Model Name	MC1254S
Rating	3.8 V, 72 mAh, 0.274 Wh
Manufacturer	Changzhou Weizhou Electronic Technology Co., Ltd.
Manufacturer Address	No. 111, Pinghu Road, Jintan District, Changzhou City, Jiangsu Province, P. R. China
Emergency Telephone Number	+86-519-82205868
Factory	Changzhou Weizhou Electronic Technology Co., Ltd.
Factory Address	No. 111, Pinghu Road, Jintan District, Changzhou City, Jiangsu Province, P. R. China

2. Hazards Identification

Route(s) of Entry

There is no hazard when the measures for handling and storage are followed.

Signs and Symptoms of exposure

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

OSHA Hazard communication: this material is not considered hazardous by the OSHA

Hazard communication Standard 29CFR 1910.120.

Carcinogenicity (NTP): Not listed

Carcinogenicity (IARC): Not listed

Carcinogenicity (OSHA): Not listed

Special hazards for human health and environment

There is no hazard when the measures for handling and storage are followed.

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

3. Composition Information

Hazardous Ingredients	CAS Number	Approximate% of total weight
Lithium Cobalt Oxide	12190-79-3	29
Polypropylene	9003-07-0	10
Stainless Steel	12597-68-1	16
Organic Solvents	-	13



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Hazardous Ingredients	CAS Number	Approximate% of total weight
Iron	7439-89-6	31
Copper	7440-50-8	
Aluminum	7429-90-5	
Salts	-	1

4. First Aid Measures

General information

The following first aid measures are required only in case exposure to interior battery components after damage of the external battery casing.

Undamaged, closed cells do not represent a danger to the health.

Skin contact

If skin contact with contents of open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Eye contact

If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.

Inhalation

If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice

Ingestion

If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Call a physician.

5. Fire Fighting Measures

Suitable extinguishing media

Cold water and dry powder in large amount are applicable.

Use metal fire extinction powder or dry sand if only few cells are involved

Specific Hazards arising from the chemical

May form hydrofluoric acid if electrolyte comes into contact with water.



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In case of fire, the formation of the following flue gases cannot be excluded: Hydrogen fluoride (HF), Carbon monoxide and carbon dioxide.

Protective Equipment and precautions for firefighters

As for any fire, evacuate the area and fight the fire from a safe distance.

Wear a pressure-demand, self-contained breathing apparatus and full protective gear.

Fight fire from a protected location or a safe distance.

Flammable Properties

In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

6. Accidental Release Measures

Personal Precautions

Restrict access to area until completion of clean-up.

Do not touch the spilled material.

Wear adequate personal protective equipment as indicated in Section 8

Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

Methods for cleaning up/taking up

Take up mechanically and send for disposal.

Methods and materials for containment

Stop the leak if safe to do so.

Contain the spilled liquid with dry sand or earth.

Clean up spills immediately.

7. Handling and Storage

Handling**Advice on safe handling**

Avoid short circuiting the cell. Avoid mechanical damage of the cell.

Do not open or disassemble.

Don't handle Lithium Ion Battery with metalwork.

Advice on protection against fire and explosion,

Ensure good ventilation/exhaustion at the workplace.

Storage

Requirement for storage rooms and vessels

Store the cell at temperature $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

In case of long period storage (more than 3 months), store the cell at temperature range of $-10^{\circ}\text{C} \sim +20^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is

assumed to be 80% or more.

Keep out of reach of children.

Do not expose Lithium Ion Battery to heat of fire.

Avoid storage in direct sunlight.

Do not store together with oxidizing and acidic materials.

Safe guard procedures

Engineering Controls

Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.

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

Personal Protective Equipment

Respiratory Protection: Not necessary under normal conditions.

Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery.

Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.

Other Protective Equipment

Have a safety shower and eye wash fountain readily available in the immediate work area.

Hygiene Measures

Do not eat, drink, or smoke in work area.

Appearance

Appearance & Odor	Prismatic, Odorless
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Important health, safety and environmental information

Change in condition	Not available
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PH, with indication of the concentration

Melting point/freezing point	Not available
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Boiling Point, initial boiling point and boiling range	Not available
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Flash Point	Not available
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Upper/Lower flammability or explosive limits	Not available
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REPORT No.: SZ24110137D01

Density/relative density	Not available
Solubility in Water	Insoluble
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Flammability (soil, gas)	Not available
Viscosity	Not available

10. Stability and Reactivity

Stability

The product is stable under normal conditions.

Conditions to avoid

Do not subject Lithium Ion Battery to mechanical shock.

Vibration encountered during transportation does not cause leakage, fire or explosion.

Do not disassemble, crush, short or install with incorrect polarity.

Avoid mechanical or electrical abuse.

Materials to avoid

No materials to be especially mentioned

Hazardous decomposition products

In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

Possibility of Hazardous Reactions

Will not occur

Additional information

No decomposition if stored and applied as directed.

11. Toxicological Information

Irritation

Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.

Sensitization

Not Available

Neurological Effects

Not Available

Reproductive Toxicity

Not Available

Mutagenicity (Genetic Effects)

Not Available

Toxicologically Synergistic Materials

MORLAB

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E-mail: service@morlab.cn



REPORT No.: SZ24110137D01

Not Available

12. Ecological Information

Further information

Ecological injuries are not known or expected under normal use.

Do not flush into surface water or sanitary sewer system.

13. Disposal Considerations

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in Federal, State or Local requirements of hazardous waste treatment and hazardous waste transportation.

14. Transport Information

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

- The International Maritime Dangerous Goods (IMDG) Code by International Maritime Organization (IMO), Dangerous Goods Regulations (DGR) by International Air Transport Association (IATA) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (TI) by International Civil Aviation Organization (ICAO). These regulations are based on the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.
- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing Instruction 965-967, Section IB or II (2025-2026 Edition).
- The International Air Transport Association (IATA) Dangerous Goods Regulations, Packing Instruction 965-967, Section IB or II (66th Edition, 2025). For cells, the Watt-hour rating should not be more than 20Wh; For batteries, the Watt-hour rating should not be more than 100Wh. Watt-hour rating must be marked on the outside of the battery case.
- The International Maritime Dangerous Goods (IMDG) Code (2024 Edition), [Special provision 188, 230].
- The US Hazardous Materials Regulations 49 CFR (Code of Federal Regulations) Sections 173-185 Lithium batteries and cells.
- The UN classification number: Class 9 3480(lithium ion batteries) / 3481(lithium ion batteries contained in equipment or lithium ion batteries packed with equipment).
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, ST/SG/AC.10/11/Rev.7/Amend.1, section 38.3 Lithium batteries.



REPORT No.: SZ24110137D01

15. Regulatory Information

Regulatory information EU

Labeling

Hazardous components which must be listed on the label

As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

According to Directive 2012/19/EU, the batteries have to be marked with the crossed wheel bin symbol.

According to Dangerous Goods Regulations, the battery packs have to be marked with the Watt-hour rating.

U.S. Regulations

National Inventory TSCA

All of the components are listed on the TSCA inventory.

SARA

To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

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.

DISCLAIMER

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchant ability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental consequential or exemplary damages, howsoever arising from using the above information.

— End of Material Safety Data Sheet —



REPORT No.: SZ24110136D04A

Material Safety Data Sheet

APPLICANT : Sonova Consumer Hearing GmbH

ADDRESS : Am Labor 1, 30900 Wedemark, Germany

BRAND NAME : N/A

SAMPLE NAME : MOMENTUM True Wireless 4 Charging case

MODEL NAME : MTW4 C

ISSUE DATE : 2025-01-06



Edited by : Tao Qing
Tao Qing

Approved by : Li Dong
Li Dong

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REPORT No.: SZ24110136D04A

1. Chemical Product and Company Identification

Product Name	MOMENTUM True Wireless 4 Charging case
Model Name	MTW4 C
Rating	3.6 V, 820 mAh, 2.952 Wh
Manufacturer	PT OSI Electronics
Manufacturer Address	Cammo Industrial Park Block G No. 16, Batam Centre, Batam 29461 Indonesia
Emergency Telephone Number	86-13922903352
Factory	PT OSI Electronics
Factory Address	Cammo Industrial Park Block G No. 16, Batam Centre, Batam 29461 Indonesia

2. Hazards Identification

Route(s) of Entry

There is no hazard when the measures for handling and storage are followed.

Signs and Symptoms of exposure

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

OSHA Hazard communication: this material is not considered hazardous by the OSHA

Hazard communication Standard 29CFR 1910.120.

Carcinogenicity (NTP): Not listed

Carcinogenicity (IARC): Not listed

Carcinogenicity (OSHA): Not listed

Special hazards for human health and environment

There is no hazard when the measures for handling and storage are followed.

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

3. Composition Information

Hazardous Ingredients	CAS Number	Approximate% of total weight
NiCoMn	182442-95-1	<40
Polyvinylidene fluoride	24937-79-9	<2
Graphite powder	7782-42-5	<30
Electrolyte	21324-40-3	<20



REPORT No.: SZ24110136D04A

Hazardous Ingredients	CAS Number	Approximate% of total weight
Polyethylene	9002-88-4	0.5~5
Copper foil	7440-50-8	<10
Nickel	7440-02-0	0.5~5
Aluminum foil	7429-90-5	0.5~5

4. First Aid Measures

General information

The following first aid measures are required only in case exposure to interior battery components after damage of the external battery casing.

Undamaged, closed cells do not represent a danger to the health.

Skin contact

If skin contact with contents of open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Eye contact

If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.

Inhalation

If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice

Ingestion

If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Call a physician.

5. Fire Fighting Measures

Suitable extinguishing media

Cold water and dry powder in large amount are applicable.

Use metal fire extinction powder or dry sand if only few cells are involved

Specific Hazards arising from the chemical

May form hydrofluoric acid if electrolyte comes into contact with water.



REPORT No.: SZ24110136D04A

In case of fire, the formation of the following flue gases cannot be excluded: Hydrogen fluoride (HF), Carbon monoxide and carbon dioxide.

Protective Equipment and precautions for firefighters

As for any fire, evacuate the area and fight the fire from a safe distance.

Wear a pressure-demand, self-contained breathing apparatus and full protective gear.

Fight fire from a protected location or a safe distance.

Flammable Properties

In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

6. Accidental Release Measures

Personal Precautions

Restrict access to area until completion of clean-up.

Do not touch the spilled material.

Wear adequate personal protective equipment as indicated in Section 8

Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

Methods for cleaning up/taking up

Take up mechanically and send for disposal.

Methods and materials for containment

Stop the leak if safe to do so.

Contain the spilled liquid with dry sand or earth.

Clean up spills immediately.

7. Handling and Storage

Handling**Advice on safe handling**

Avoid short circuiting the cell. Avoid mechanical damage of the cell.

Do not open or disassemble.

Don't handle Lithium Ion Battery with metalwork.

Advice on protection against fire and explosion,

Ensure good ventilation/exhaustion at the workplace.

Storage

Requirement for storage rooms and vessels

Store the cell at temperature $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

In case of long period storage (more than 3 months), store the cell at temperature range of $-10^{\circ}\text{C} \sim +20^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is

Keep out of reach of children.

Do not expose Lithium Ion Battery to heat of fire.

Avoid storage in direct sunlight.

Do not store together with oxidizing and acidic materials.

Safe guard procedures

Engineering Controls

Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.

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

Personal Protective Equipment

Respiratory Protection: Not necessary under normal conditions.

Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery.

Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.

Other Protective Equipment

Have a safety shower and eye wash fountain readily available in the immediate work area.

Hygiene Measures

Do not eat, drink, or smoke in work area.

Appearance

Appearance & Odor	Prismatic, Odorless
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Important health, safety and environmental information

Change in condition	Not available
---------------------	---------------

PH, with indication of the concentration	Not available
--	---------------

Melting point/freezing point	Not available
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Boiling Point, initial boiling point and boiling range	Not available
--	---------------

Flash Point	Not available
-------------	---------------

Upper/Lower flammability or explosive limits	Not available
--	---------------



REPORT No.: SZ24110136D04A

Density/relative density	Not available
Solubility in Water	Insoluble
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Flammability (soil, gas)	Not available
Viscosity	Not available

10. Stability and Reactivity

Stability

The product is stable under normal conditions.

Conditions to avoid

Do not subject Lithium Ion Battery to mechanical shock.

Vibration encountered during transportation does not cause leakage, fire or explosion.

Do not disassemble, crush, short or install with incorrect polarity.

Avoid mechanical or electrical abuse.

Materials to avoid

No materials to be especially mentioned

Hazardous decomposition products

In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

Possibility of Hazardous Reactions

Will not occur

Additional information

No decomposition if stored and applied as directed.

11. Toxicological Information

Irritation

Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.

Sensitization

Not Available

Neurological Effects

Not Available

Reproductive Toxicity

Not Available

Mutagenicity (Genetic Effects)

Not Available

Toxicologically Synergistic Materials

MORLAB

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Http://www.morlab.cn

Fax: 86-755-36698525

E-mail: service@morlab.cn



REPORT No.: SZ24110136D04A

Not Available

12. Ecological Information

Further information

Ecological injuries are not known or expected under normal use.

Do not flush into surface water or sanitary sewer system.

13. Disposal Considerations

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in Federal, State or Local requirements of hazardous waste treatment and hazardous waste transportation.

14. Transport Information

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

- The International Maritime Dangerous Goods (IMDG) Code by International Maritime Organization (IMO), Dangerous Goods Regulations (DGR) by International Air Transport Association (IATA) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (TI) by International Civil Aviation Organization (ICAO). These regulations are based on the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.
- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing Instruction 965-967, Section IB or II (2025-2026 Edition).
- The International Air Transport Association (IATA) Dangerous Goods Regulations, Packing Instruction 965-967, Section IB or II (66th Edition, 2025). For cells, the Watt-hour rating should not be more than 20Wh; For batteries, the Watt-hour rating should not be more than 100Wh. Watt-hour rating must be marked on the outside of the battery case.
- The International Maritime Dangerous Goods (IMDG) Code (2024 Edition), [Special provision 188, 230].
- The US Hazardous Materials Regulations 49 CFR (Code of Federal Regulations) Sections 173-185 Lithium batteries and cells.
- The UN classification number: Class 9 3480(lithium ion batteries) / 3481(lithium ion batteries contained in equipment or lithium ion batteries packed with equipment).
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, ST/SG/AC.10/11/ Rev.8, section 38.3 Lithium batteries.



REPORT No.: SZ24110136D04A

15. Regulatory Information

Regulatory information EU

Labeling

Hazardous components which must be listed on the label

As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

According to Directive 2012/19/EU, the batteries have to be marked with the crossed wheel bin symbol.

According to Dangerous Goods Regulations, the battery packs have to be marked with the Watt-hour rating.

U.S. Regulations

National Inventory TSCA

All of the components are listed on the TSCA inventory.

SARA

To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

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.

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The original report SZ24110136D04 has been replaced by the SZ24110136D04A. Reason for change: Amend the manufacturer and factory.

— End of Material Safety Data Sheet —



REPORT No.: SZ24110137D01

Material Safety Data Sheet

APPLICANT : Sonova Consumer Hearing GmbH
ADDRESS : Am Labor 1, 30900 Wedemark, Germany
BRAND NAME : N/A
SAMPLE NAME : Rechargeable Lithium Cell
MODEL NAME : MC1254S
ISSUE DATE : 2025-01-03



Edited by : Tao Qing
Tao Qing
Approved by : Li Dong
Li Dong

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REPORT No.: SZ24110137D01

1. Chemical Product and Company Identification

Product Name	Rechargeable Lithium Cell
Model Name	MC1254S
Rating	3.8 V, 72 mAh, 0.274 Wh
Manufacturer	Changzhou Weizhou Electronic Technology Co., Ltd.
Manufacturer Address	No. 111, Pinghu Road, Jintan District, Changzhou City, Jiangsu Province, P. R. China
Emergency Telephone Number	+86-519-82205868
Factory	Changzhou Weizhou Electronic Technology Co., Ltd.
Factory Address	No. 111, Pinghu Road, Jintan District, Changzhou City, Jiangsu Province, P. R. China

2. Hazards Identification

Route(s) of Entry

There is no hazard when the measures for handling and storage are followed.

Signs and Symptoms of exposure

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

OSHA Hazard communication: this material is not considered hazardous by the OSHA

Hazard communication Standard 29CFR 1910.120.

Carcinogenicity (NTP): Not listed

Carcinogenicity (IARC): Not listed

Carcinogenicity (OSHA): Not listed

Special hazards for human health and environment

There is no hazard when the measures for handling and storage are followed.

In case of cell damage, possible release of dangerous substances and a flammable gas mixture

3. Composition Information

Hazardous Ingredients	CAS Number	Approximate% of total weight
Lithium Cobalt Oxide	12190-79-3	29
Polypropylene	9003-07-0	10
Stainless Steel	12597-68-1	16
Organic Solvents	-	13



REPORT No.: SZ24110137D01

Hazardous Ingredients	CAS Number	Approximate% of total weight
Iron	7439-89-6	31
Copper	7440-50-8	
Aluminum	7429-90-5	
Salts	-	1

4. First Aid Measures

General information

The following first aid measures are required only in case exposure to interior battery components after damage of the external battery casing.

Undamaged, closed cells do not represent a danger to the health.

Skin contact

If skin contact with contents of open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Eye contact

If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.

Inhalation

If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice

Ingestion

If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Call a physician.

5. Fire Fighting Measures

Suitable extinguishing media

Cold water and dry powder in large amount are applicable.

Use metal fire extinction powder or dry sand if only few cells are involved

Specific Hazards arising from the chemical

May form hydrofluoric acid if electrolyte comes into contact with water.



REPORT No.: SZ24110137D01

In case of fire, the formation of the following flue gases cannot be excluded: Hydrogen fluoride (HF), Carbon monoxide and carbon dioxide.

Protective Equipment and precautions for firefighters

As for any fire, evacuate the area and fight the fire from a safe distance.

Wear a pressure-demand, self-contained breathing apparatus and full protective gear.

Fight fire from a protected location or a safe distance.

Flammable Properties

In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

6. Accidental Release Measures

Personal Precautions

Restrict access to area until completion of clean-up.

Do not touch the spilled material.

Wear adequate personal protective equipment as indicated in Section 8

Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

Methods for cleaning up/taking up

Take up mechanically and send for disposal.

Methods and materials for containment

Stop the leak if safe to do so.

Contain the spilled liquid with dry sand or earth.

Clean up spills immediately.

7. Handling and Storage

Handling

Advice on safe handling

Avoid short circuiting the cell. Avoid mechanical damage of the cell.

Do not open or disassemble.

Don't handle Lithium Ion Battery with metalwork.

Advice on protection against fire and explosion,

Ensure good ventilation/exhaustion at the workplace.

Storage

Requirement for storage rooms and vessels

Store the cell at temperature $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

In case of long period storage (more than 3 months), store the cell at temperature range of $-10^{\circ}\text{C} \sim +20^{\circ}\text{C}$, low humidity and no corrosive gas atmosphere.

The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is

assumed to be 80% or more.

Keep out of reach of children.

Do not expose Lithium Ion Battery to heat of fire.

Avoid storage in direct sunlight.

Do not store together with oxidizing and acidic materials.

Safe guard procedures

Engineering Controls

Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.

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

Personal Protective Equipment

Respiratory Protection: Not necessary under normal conditions.

Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery.

Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.

Other Protective Equipment

Have a safety shower and eye wash fountain readily available in the immediate work area.

Hygiene Measures

Do not eat, drink, or smoke in work area.

Appearance

Appearance & Odor	Prismatic, Odorless
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Important health, safety and environmental information

Change in condition	Not available
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PH, with indication of the concentration

Melting point/freezing point	Not available
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Boiling Point, initial boiling point and boiling range	Not available
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Flash Point	Not available
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Upper/Lower flammability or explosive limits	Not available
--	---------------



REPORT No.: SZ24110137D01

Density/relative density	Not available
Solubility in Water	Insoluble
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Flammability (soil, gas)	Not available
Viscosity	Not available

10. Stability and Reactivity

Stability

The product is stable under normal conditions.

Conditions to avoid

Do not subject Lithium Ion Battery to mechanical shock.

Vibration encountered during transportation does not cause leakage, fire or explosion.

Do not disassemble, crush, short or install with incorrect polarity.

Avoid mechanical or electrical abuse.

Materials to avoid

No materials to be especially mentioned

Hazardous decomposition products

In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

Possibility of Hazardous Reactions

Will not occur

Additional information

No decomposition if stored and applied as directed.

11. Toxicological Information

Irritation

Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.

Sensitization

Not Available

Neurological Effects

Not Available

Reproductive Toxicity

Not Available

Mutagenicity (Genetic Effects)

Not Available

Toxicologically Synergistic Materials

MORLAB

Shenzhen Morlab Communications Technology Co., Ltd.
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Fax: 86-755-36698525

Http://www.morlab.cn

E-mail: service@morlab.cn



REPORT No.: SZ24110137D01

Not Available

12. Ecological Information

Further information

Ecological injuries are not known or expected under normal use.

Do not flush into surface water or sanitary sewer system.

13. Disposal Considerations

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in Federal, State or Local requirements of hazardous waste treatment and hazardous waste transportation.

14. Transport Information

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

- The International Maritime Dangerous Goods (IMDG) Code by International Maritime Organization (IMO), Dangerous Goods Regulations (DGR) by International Air Transport Association (IATA) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (TI) by International Civil Aviation Organization (ICAO). These regulations are based on the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.
- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing Instruction 965-967, Section IB or II (2025-2026 Edition).
- The International Air Transport Association (IATA) Dangerous Goods Regulations, Packing Instruction 965-967, Section IB or II (66th Edition, 2025). For cells, the Watt-hour rating should not be more than 20Wh; For batteries, the Watt-hour rating should not be more than 100Wh. Watt-hour rating must be marked on the outside of the battery case.
- The International Maritime Dangerous Goods (IMDG) Code (2024 Edition), [Special provision 188, 230].
- The US Hazardous Materials Regulations 49 CFR (Code of Federal Regulations) Sections 173-185 Lithium batteries and cells.
- The UN classification number: Class 9 3480(lithium ion batteries) / 3481(lithium ion batteries contained in equipment or lithium ion batteries packed with equipment).
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, ST/SG/AC.10/11/Rev.7/Amend.1, section 38.3 Lithium batteries.



REPORT No.: SZ24110137D01

15. Regulatory Information

Regulatory information EU

Labeling

Hazardous components which must be listed on the label

As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

According to Directive 2012/19/EU, the batteries have to be marked with the crossed wheel bin symbol.

According to Dangerous Goods Regulations, the battery packs have to be marked with the Watt-hour rating.

U.S. Regulations

National Inventory TSCA

All of the components are listed on the TSCA inventory.

SARA

To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

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.

DISCLAIMER

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— End of Material Safety Data Sheet —

SYNERGY SCIENTECH CORP. -- Advanced Hybrid Batteries
SAFETY DATA SHEET

Manufacturer's CAGE: SYNERGY

Part No. Indicator: A

Part Number/Trade Name: AHB Series- Lithium ion Polymer batteries.

Model Name: AHB571935PCT-03

Charging Voltage: 4.2V

Working Voltage: 3.7V

Nominal Capacity: 360 mAh;

Minimum Capacity: 350 mAh

Wh: 1.3Wh

Weight: Approx.: 7.7g

1. General Information

Company's Name: SYNERGY SCIENTECH CORP.

Company's Street: 6F-3, No. 9, Prosperity 1st Rd, Hsinchu Science Park, Hsinchu, Taiwan 300091 R.O.C.

Company's City: HSIN-CHU, TAIWAN

Company's Emerge Ph #: 886-3-564-3700

Company's Info Ph #: 886-3-564-3700

Record No. For Safety Entry: 001

Tot Safety Entries This Sty #: 001

Status: SMI

Date MSDS Prepared: January 1, 2023(17th Edition)

Safety Data Review Date: January 1, 2023

MSDS Preparer's Name: Dr. Brian Shen

Preparer's Company: SAME

MSDS Serial Number:

Battery Capacity:

Nominal Voltage:

Wait-hour:

Report NO:

2. Hazards Identification

Signal word



Route of Entry - Inhalation: YES

Route of Entry - Skin: YES

Route of Entry - Ingestion: YES

Health overexposure Acute and Chronic: UNDER NORM CNDTNS OF USE, THESE CHEMICALS

ARE CONTAINED IN SEALED CAN. RISK OF EXPOS OCCURS ONLY IF BATTERY IS

MECHANICALLY ABUSED. ACUTE: INHAL: CONTENTS OF OPENED BATTERY CAN CAUSE

CONTENTS OF OPENED BATTERY CAN CAUSE IRRIT.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

3. Composition/information on ingredients

Material Name. (e.g. Sn alloy)	Substance Name (e.g. Copper (Cu))	CAS No.	Percentage (%)
active material	LiCoO ₂	12190-79-3	32.62
Binder-PVDF	Polyvinylidene difluoride	24937-79-9	1.04
Conductive material	Carbon	1333-86-4	0.78
Conductive material	Carbon	1333-86-4	0.26
Foil	Aluminum	7429-90-5	4.61
active material	Carbon	1333-86-4	15.92
Binder-PVDF	Polyvinylidene difluoride	24937-79-9	1.3
conductive material	Carbon	7440-44-0	0.09
additive	Oxalic acid	144-62-7	0.05
foil	Copper	7440-50-8	7.87
electrolyte-solvent	Ethylene carbonate	96-49-1	5.06
electrolyte-solvent	Diethyl carbonate	105-58-8	3.72
electrolyte-solvent	Ethyl methyl carbonate	623-53-0	3.74
electrolyte-additive	Lithium hexafluorophosphate	21324-40-3	1.82
electrolyte-additive	1,3-propanesultone	1120-71-4	0.09
separator	Polyethylene	9002-88-4	3.62
tape-film	Polyimide	75-55-8	0.1
tape-adhesive	Acrylic	9011-14-7	0.03
tape-film	Polyester	25038-59-9	0.14
tape-adhesive	Acrylic	9011-14-7	0.03
Al bag	Nylon	32131-17-2	3.85
Al bag	Aluminum	7429-90-5	9.75
Al bag	Polypropylene	9003-07-0	2.57
tab lead	Nickel	7440-02-0	0.38
tab lead	polypropylene	9003-07-0	0.05
tab lead	Aluminum	7429-90-5	0.24
tab lead	polypropylene	9003-07-0	0.05
tab	Nickel	7440-02-0	0.22

4. First Aid Measures

Explanation Carcinogenicity: NOT RELEVANT.

Signs/Symptoms of Overexposure: SEE HEALTH HAZARDS.

Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.

WASH WITH SOAP AND WATER. EYES: IMMEDIATELY FLUSH THOROUGHLY WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION.

INGESTION: CALL MD IMMEDIATELY (FP N).

5. Fire Fighting Measures

Extinguishing Media: IN CASE OF FIRE, USE CARBON DIOXIDE OR DRY CHEMICAL EXTINGUISHERS.

Special Fire Fighting Proc: WEAR NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FPN).

Unusual Fire And Expel Hazards: NONE SPECIFIED BY MANUFACTURER.

6. Accidental Release Measures

Wear appropriate personal protective equipment. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

7. Handling and Storage

Wear suitable chemical resistant gloves, safety glasses and filtered cartridge respirator. Goggles, full face protection and other protective clothing is required if potential exists for direct exposure to liquid battery electrolyte.

In case Material is released or spilled: Carefully recover spillages with appropriate ladle and transfer to a suitably labeled, sealable container for safe disposal. Wash the spillage area neutralized with calcium hydroxide.

Wear suitable personal protection during removal of spillages.

Be stored in clearly labeled, tightly closed exclusive containers in a cool, dry area.

8. Exposure Controls/Personal Protection

Ventilation: Use local exhaust.

Protective Gloves: Wear rubber or plastic gloves.

Eye/Face Protection: Wear safety glasses, goggles or full face protections.

Respiratory Protection: Wear filtered cartridge respirator or a respirator of greater protection.

=====

9. Physical and Chemical Properties

=====

Product Type: Solid
 Appearance: Prismatic
 Odor: Odorless

=====

10. Stability and Reactivity

=====

Stability: YES
 Cond To Avoid (Stability): NONE SPECIFIED BY MANUFACTURER.
 Materials To Avoid: NONE SPECIFIED BY MANUFACTURER.
 Hazardous Decamp Products: NONE SPECIFIED BY MANUFACTURER.
 Hazardous Poly Occur: NO
 Conditions To Avoid (Poly): NOT RELEVANT.

=====

11. Toxicological Information

=====

In case electrolyte is spilled and explored with air, the HF could be released.
 May include hydrogen fluoride and carbon oxides gas.
 May cause skin and eye irritation when contacted.

=====

12. Ecological Information

=====

If the battery scrapped, it should be selected and disposed by professional company.

=====

13. Disposal Consideration

=====

Disposal should be in accordance with local, state or national legislation.

=====

14. Transport Information

=====

Air transport :Limit per package

* Shipment Requirements 30%SOC

UN 38.3 Lithium Battery		Test results	Remarks
NO	Test item	OK	Test 1 to 5 must be conducted in sequence on the same cell or battery
T1	Altitude simulation	OK	
T2	Thermal test	OK	
T3	Vibration	OK	
T4	Shock	OK	
T5	External short circuit	OK	

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T6	Impact	OK	
T7	Overcharge	OK	Only battery do need this test item
T8	Forced discharge	OK	For cell only

The product is not classified as dangerous under the current edition of the 64th Edition IATA dangerous goods regulations. The products are safe for air transportation and not regulated by IATA DGR. Also they comply with the PI-965 Section IA & IB and PI-966 & PI-967 Section II accordingly.

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

- The package of battery should be complied with the requirements of 188 of IMDG (40-20) or the <<Recommendations On The Transport Of Dangerous Goods-Model Regulations>>

- US Hazardous Materials Regulations 49 CFR(Code of Federal Regulations)
Sections 173.185 Lithium batteries and cells,

- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria 38.3 Lithium batteries

- UN No. 3480

If those lithium-ion batteries are packed with or contained in an equipment, then it is the responsibility of the shipper to ensure that the consignment are packed in compliance to the latest edition of the IATA Dangerous Goods Regulations section II of either Packing Instruction 966 or 967 in order for that consignment to be declared as NOT RESTRICTED (non-hazardous/non-Dangerous). If those lithium-ion batteries are packed with or contained in an equipment, UN No. is UN3481

Our products are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to all the applicable international and national governmental regulations, not limited to the above mentioned. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in accordance with UN Recommendations (T1 – T8) on the Transport of Dangerous Goods Model Regulations and the Manual of Testes and Criteria.

UN 38.3 Lithium Battery		Test results	Remarks
NO	Test item	OK	Test 1 to 5 must be conducted in sequence on the same cell or battery
T1	Altitude simulation	OK	
T2	Thermal test	OK	
T3	Vibration	OK	
T4	Shock	OK	
T5	External short circuit	OK	
T6	Impact	OK	
T7	Overcharge	OK	Only battery do need this test item
T8	Forced discharge	OK	For cell only

=====

15. Regulatory Information

See ACGIH exposure limits information as noted in Section 3.

US: This MSDS meets/exceeds OSHA requirements

International: this MSDS conforms to European Union (UN), the International Standards Organization (ISO) and the International Labor Organization (ILO) and as documented in ANSI (American National Standards Institute) Standard Z400.1-1993.

16. Other Information

Reference:

Chemical substances information: Japan Advanced Information center of Safety and Health
International Chemical Safety Cards (ICSCs); International Occupational Safety and Health
Information Centre (CIS)
2002 TLVs and BELs: American Conference of Governmental Industrial Hygienists (ACGIH)
Dangerous Goods Regulations-64th Edition : International Air Transport
Association (IATA)
IMDG Code-2020 Edition: International Maritime Organization (IMO)
- The package of battery should be complied with the requirements of 188 of IMDG (40-20) or the
<<Recommendations On The Transport Of Dangerous Goods-Model Regulations>>
Latest covered modification of the European Battery Directive 2006/66/EC and Amendment
2013/56/EU
The United Nations Economic Commission for Europe (UNECE)
MSDS of raw materials prepared by the manufactures

SYNERGY SCIENTECH CORP. -- Advanced Hybrid Batteries
SAFETY DATA SHEET

Manufacturer's CAGE: SYNERGY

Part No. Indicator: A

Part Number/Trade Name: AHB Series- Lithium ion Polymer batteries.

Model Name: AHB571935PCT-03

Charging Voltage: 4.2V

Working Voltage: 3.7V

Nominal Capacity: 360 mAh;

Minimum Capacity: 350 mAh

Wh: 1.3Wh

Weight: Approx.: 7.7g

1. General Information

Company's Name: SYNERGY SCIENTECH CORP.

Company's Street: 6F-3, No. 9, Prosperity 1st Rd, Hsinchu Science Park, Hsinchu, Taiwan 300091 R.O.C.

Company's City: HSIN-CHU, TAIWAN

Company's Emerge Ph #: 886-3-564-3700

Company's Info Ph #: 886-3-564-3700

Record No. For Safety Entry: 001

Tot Safety Entries This Sty #: 001

Status: SMI

Date MSDS Prepared: January 1, 2023(17th Edition)

Safety Data Review Date: January 1, 2023

MSDS Preparer's Name: Dr. Brian Shen

Preparer's Company: SAME

MSDS Serial Number:

Battery Capacity:

Nominal Voltage:

Wait-hour:

Report NO:

2. Hazards Identification

Signal word



Route of Entry - Inhalation: YES

Route of Entry - Skin: YES

Route of Entry - Ingestion: YES

Health overexposure Acute and Chronic: UNDER NORM CNDTNS OF USE, THESE CHEMICALS

ARE CONTAINED IN SEALED CAN. RISK OF EXPOS OCCURS ONLY IF BATTERY IS

MECHANICALLY ABUSED. ACUTE: INHAL: CONTENTS OF OPENED BATTERY CAN CAUSE

CONTENTS OF OPENED BATTERY CAN CAUSE IRRIT.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

3. Composition/information on ingredients

Material Name. (e.g. Sn alloy)	Substance Name (e.g. Copper (Cu))	CAS No.	Percentage (%)
active material	LiCoO ₂	12190-79-3	32.62
Binder-PVDF	Polyvinylidene difluoride	24937-79-9	1.04
Conductive material	Carbon	1333-86-4	0.78
Conductive material	Carbon	1333-86-4	0.26
Foil	Aluminum	7429-90-5	4.61
active material	Carbon	1333-86-4	15.92
Binder-PVDF	Polyvinylidene difluoride	24937-79-9	1.3
conductive material	Carbon	7440-44-0	0.09
additive	Oxalic acid	144-62-7	0.05
foil	Copper	7440-50-8	7.87
electrolyte-solvent	Ethylene carbonate	96-49-1	5.06
electrolyte-solvent	Diethyl carbonate	105-58-8	3.72
electrolyte-solvent	Ethyl methyl carbonate	623-53-0	3.74
electrolyte-additive	Lithium hexafluorophosphate	21324-40-3	1.82
electrolyte-additive	1,3-propanesultone	1120-71-4	0.09
separator	Polyethylene	9002-88-4	3.62
tape-film	Polyimide	75-55-8	0.1
tape-adhesive	Acrylic	9011-14-7	0.03
tape-film	Polyester	25038-59-9	0.14
tape-adhesive	Acrylic	9011-14-7	0.03
Al bag	Nylon	32131-17-2	3.85
Al bag	Aluminum	7429-90-5	9.75
Al bag	Polypropylene	9003-07-0	2.57
tab lead	Nickel	7440-02-0	0.38
tab lead	polypropylene	9003-07-0	0.05
tab lead	Aluminum	7429-90-5	0.24
tab lead	polypropylene	9003-07-0	0.05
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Explanation Carcinogenicity: NOT RELEVANT.

Signs/Symptoms of Overexposure: SEE HEALTH HAZARDS.

Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.

WASH WITH SOAP AND WATER. EYES: IMMEDIATELY FLUSH THOROUGHLY WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION.

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* Shipment Requirements 30%SOC

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T2	Thermal test	OK	
T3	Vibration	OK	
T4	Shock	OK	
T5	External short circuit	OK	

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T6	Impact	OK	
T7	Overcharge	OK	Only battery do need this test item
T8	Forced discharge	OK	For cell only

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Reference:

Chemical substances information: Japan Advanced Information center of Safety and Health
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2002 TLVs and BELs: American Conference of Governmental Industrial Hygienists (ACGIH)
Dangerous Goods Regulations-64th Edition : International Air Transport
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IMDG Code-2020 Edition: International Maritime Organization (IMO)

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Latest covered modification of the European Battery Directive 2006/66/EC and Amendment
2013/56/EU

The United Nations Economic Commission for Europe (UNECE)

MSDS of raw materials prepared by the manufactures



Report No./报告编号:
P24071606501

Material Safety Data Sheet 材料安全数据表

Name of Goods: Rechargeable Li-ion Polymer Battery

物品名称: 可充电锂离子聚合物电池

Model and Spec.:

YJ801535, 3.7V 400mAh 1.48Wh

型号规格:

Applicant: YJ POWER GROUP LIMITED

委托单位: 广东言九电子股份有限公司

Effective date:

2024-09-10

生效日期:

Date of issue:

2024-09-10

签发日期:

Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 化学品及企业标识	
Name of Products 产品名称	Rechargeable Li-ion Polymer Battery 可充电锂离子聚合物电池
Model/Type 型号	YJ801535
Ratings 额定参数	3.7V 400mAh 1.48Wh
Applicant 委托单位	YJ POWER GROUP LIMITED 广东言九电子股份有限公司
Address of Applicant 委托单位地址	Room 101, Block 1, No. 35 Fuxing Road, Chang'an Town, Dongguan City, Guangdong, China 广东省东莞市长安镇复兴路35号1号楼101室
Manufacturer 生产厂商	YJ POWER GROUP LIMITED 广东言九电子股份有限公司
Address of manufacturer 生产厂商地址	Room 101, Block 1, No. 35 Fuxing Road, Chang'an Town, Dongguan City, Guangdong, China 广东省东莞市长安镇复兴路35号1号楼101室
Emergency telephone call 应急电话	+86-13480935393
Prepared by 编制人	Jake Chen 陈嘉南
Reviewed by 审核人	Leo Huang 黄梓涛
Approved by 批准人	Jesse Zhang 张士杰



2. Hazards Identification

危险性概述

Dangerous classification 物品危险分类	
Explosive risk 爆炸危险性	This article does not belong to the explosion dangerous goods 该物品不属于爆炸危险品
Flammable risk 易燃危险性	This article does not belong to the flammable material 该物品不属于易燃危险品
Oxidation risk 氧化危险性	This article does not belong to the oxidation of dangerous goods 该物品不属于氧化危险品
Toxic risk 毒害危险性	This article does not belong to the toxic dangerous goods 该物品不属于毒害危险品
Radioactive risk 放射危险性	This article does not belong to the radiation of dangerous goods 该物品不属于放射危险品
Mordant risk 腐蚀危险性	This article does not belong to the corrosion of dangerous goods 该物品不属于腐蚀危险品
Other risk 其他危险性	Lithium-ion batteries, The Watt-hour rating of the battery is 1.48Wh 锂离子电池, 该电池额定瓦时为1.48Wh

3. COMPOSITION INFORMATION

成分/组成信息

Chemical Composition 化学成分	CAS No. CAS号	Weight (%) 重量百分比
Lithium cobalt oxide	12190-79-3	40.778
Carbon	1333-86-4	2.515
PVDF	24937-79-9	1.988
Graphite	7782-42-5	20.243
CMC	9000-11-7	1.208
SBR	9003-55-8	1.081
Aluminum foil	7429-90-5	4.451
Copper foil	7440-50-8	8.405
Lithium hexafluorophosphate	21324-40-3	19.331

4. First aid measures

急救措施

Once battery shell rupture, content contact with the human body will produce harm, once contact, should take the following emergency measures:

电池外壳破裂，内容物接触人体产生危害，一旦发生接触，应采取以下应急措施：

Eye:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

眼睛:

万一接触，立即用大量的清水冲洗至少15分钟，翻起上下眼睑，直到化学的残留物消失为止，迅速就医。

Skin:

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

皮肤:

万一接触，用大量水冲洗至少15分钟，同时除去污染的衣物和鞋子，迅速就医。

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

吸入:

立即从暴露处移至空气清新处，如果呼吸困难给予输氧，立即就医。

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician

食入:

饮用两杯牛奶或水。如果当事人仍然清晰可以采取催吐的方法，并且立即就医。

5. Fire-fighting measures

消防措施

Flash Point: N/A.

燃点: 不适用

Auto-Ignition Temperature: N/A.

自燃温度: 不适用

Extinguishing Media: Water, CO₂.

灭火介质: 大量水（降温），二氧化碳

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

特殊灭火程序: 自给式呼吸器

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

异常火灾或爆炸: 当电芯暴露于过热的环境中时，安全阀可能会打开。

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

燃烧产生的危险物品: 一氧化碳，二氧化碳，锂氧化物烟气。

6. Accidental release measures 泄露应急处理

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

为防止电池材料泄露或释放采取的措施

如果电池内部材料泄露，试验人员应立刻撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区，清除溢出的液体，将泄露电池放进塑料袋中，然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

废弃物处置方法

建议将电池完全放电，消耗电池内部的锂金属，并且深埋于土壤中。

7. Handling and storage 操作处置和储存

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

操作处置和储存中的防范措施

禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风等温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

其他要注意的防范措施

拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。禁止短接或将电池正负极错误的安装在设备中。

8. Exposure controls/personal protection

接触控制/个人防护

Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

呼吸防护: 当电池排气阀打开时, 应尽量使通风设备开至最大, 避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下, 呼吸保护是不必要的。

Ventilation: Not necessary under conditions of normal use.

通风条件: 正常使用条件下不需要。

Protective Gloves: Not necessary under conditions of normal use.

防护手套: 正常使用条件下不需要。

Other Protective Clothing or Equipment: Not necessary under conditions of normal use.

其他防护服装或设备: 正常使用条件下不需要。

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

电池开阀试验时应做好个人防护: 呼吸防护, 防护手套, 防护服装和有护边的安全玻璃罩都是要准备的。

9. Physical and chemical properties

物理和化学特性

Appearance: Prismatic

外形: 棱柱形

Odors: If leaking, smells of medical ether.

气味: 泄漏时, 有醚的气味。

PH: Not applicable as supplied.

酸碱度: 不适用

Flash Point: Not applicable unless individual components exposed.

燃点: 除单个电芯暴露试验外其他不适用。

Flammability: Not applicable unless individual components exposed.

可燃性: 除单个电芯暴露试验外其他不适用。

Relative density: Not applicable unless individual components exposed.

相对密度: 除单个电芯暴露试验外其他不适用。

Solubility (water): Not applicable unless individual components exposed.

溶解性 (水溶性): 除单个电芯暴露试验外其他不适用。

Solubility (other): Not applicable unless individual components exposed.

溶解性 (其他): 除单个电芯暴露试验外其他不适用。

10. Stability and reactivity 稳定性和反应活性

Stability: Product is stable under conditions described in Section 7.

稳定性: 产品在第 7 节所述的条件下稳定。

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

应避免的条件: 加热 70°C 以上或焚烧。变形。毁坏。粉碎。拆卸。过充电。短路。长时间暴露在潮湿的条件下。

Materials to avoid: Oxidising agents, alkalis, water.

应避免的材料: 氧化剂, 碱, 水。

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

危险分解物: 有毒烟雾, 并可能形成过氧化物。

Hazardous Polymerization: N/A.

聚合危害: 不适用

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

如果发生泄露, 避免与强氧化剂, 无机酸, 强碱, 卤代烃接触。

11. Toxicological information 毒理学资料

Signs & symptoms: None, unless battery ruptures.

标志及症状: 无, 除非电池破裂。

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。

Inhalation: Lung irritant.

吸入: 对肺有刺激性。

Skin contact: Skin irritant.

皮肤接触: 对皮肤刺激性。

Eye contact: Eye irritant.

眼睛接触: 对眼睛有刺激性。

Ingestion: Poisoning if swallowed.

食入: 吞下中毒。

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

下列情况下健康状况会恶化: 万一发生与电池内部材料接触的事故, 轻微或严重的刺激, 都可能使皮肤出现干燥和灼烧的感觉, 并且损坏靶器官(肝脏, 肾脏)的神经。

12. Ecological information 生态学资料		
Mammalian effects: None known at present. 对哺乳动物的影响: 目前未知。 Eco-toxicity: None known at present. 生态毒性: 目前未知。 Bioaccumulation potential: Slowly Bio-degradable. 生物体内积累: 慢慢地生物降解。 Environmental fate: None known environmental hazards at present. 环境危害: 目前没有已知的环境危害。		
13. Disposal consideration 废弃处置		
Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations. 不要焚烧, 或使电池温度超过 70°C, 这种滥用可导致泄漏和/或电池爆炸。按照相应的地方性法规处理。		
14. Transport information 运输信息		
UN No. and Shipping name: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment UN编号及运输专有名称: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment Label for conveyance: Lithium Battery Mark, class 9 lithium battery hazard label (Only for UN3480), Cargo Aircraft Only Label (Only for UN3480) 运输标签: 锂电池标记, 第 9 类锂电池危险品标签 (只适用UN3480), 仅限货机标签 (只适用UN3480) Packaging Group/包装等级: N/A/不适用 EmS No./EmS 编号: F-A, S-I Marine pollutants/海洋污染物: No/否		
ICAO/IATA	Shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions PI 965 IB, PI 966 II, PI 967 II 根据国际民用航空组织(ICAO), TI或者国际航空协会(IATA), DGR包装说明PI 965 IB, PI 966 II, PI 967 II相关规定进行空运	DGR 65 th (2024) ICAO (2023-2024 edition)
IMDG CODE	Shipped by sea in accordance with International Maritime Dangerous Code (IMDG CODE) Special Provision 188 根据《国际海运危险货物规则》(IMDG CODE)特殊规定188条款相关规定运输	IMDG CODE (Amdt. 41-22)

15. Regulation information**法规信息**

Law information 法律信息

《Dangerous Goods Regulations》

《危险品规则》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《关于危险货物运输的建议书 规章范本》

《International Maritime Dangerous Goods Code》

《国际海运危险货物规则》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险品安全运输技术指令》

16. Other Information**其他信息**

This file is only effective to the batteries (YJ801535) provided by commissioner (YJ POWER GROUP LIMITED) which manufactured by YJ POWER GROUP LIMITED. The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. Shenzhen NTEK New Energy Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries.

本文件仅对由委托方（广东言九电子股份有限公司）提供的，并由广东言九电子股份有限公司生产的电池（YJ801535）有效。该电池的成分信息由委托方提供并承诺其完整性和准确性。用户应仔细阅读此文件，并按照正确的方法使用电池，如因电池使用不当造成的损害或损失，深圳市北测新能源技术有限公司不承担任何责任。

--End of Material Safety Data Sheet 材料安全数据表结束--

Important Notice

注意事项

1. The test report is invalid without the Report Seal of NTEK and Paging seal of NTEK.

本报告书无本公司报告专用章、骑缝章无效。

2. Nobody is allowed to photocopy or partly photocopy this test report without written permission of NTEK.

未经本试验室书面同意，不得部分地复制本报告。

3. The test report is invalid without the signatures of Approver, Reviewer and Preparer.

本报告书无批准人、审核人及编制人签名无效。

4. The report is invalid when anything of following happens – illegal transfer, reproduce, embezzlement, imposture, modification or tampering in any media form.

私自转让、复制、盗用、冒用、涂改、或以任何媒体形式篡改的报告书无效。

5. Objections to the test report must be submitted to NTEK within 15 days.

对报告书若有异议，应于收到报告之日起15天内向本公司提出。

6. The Chinese contents in this report are only for reference.

本报告中的中文内容仅供参考。

Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

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地址：深圳市宝安区航城街道三围社区奋达高新科技园 C 栋 101

Tel 电话：400-809-9068 E-mail 邮箱：Quality@ntekbat.org.cn

Website 网址：http://www.ntekbat.org.cn

Material Safety Data Sheet

材料安全数据表

Name of Goods: Rechargeable Li-ion Cell

物品名称: 可充式锂离子电池

Model and Spec.:

1040W1, 3.85V 35mAh 0.135Wh

型号规格:

Applicant: Chongqing VDL Electronics Co., Ltd.

委托单位: 重庆市紫建电子股份有限公司

Effective date:

2024-07-25

生效日期:

Date of issue:

2024-07-25

签发日期:

Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 化学品及企业标识	
Name of Products 产品名称	Rechargeable Li-ion Cell 可充式锂离子电池
Model/Type 型号	1040W1
Ratings 额定参数	3.85V 35mAh 0.135Wh
Applicant 委托单位	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of Applicant 委托单位地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
Manufacturer 生产厂商	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of manufacturer 生产厂商地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
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Prepared by 编制人	Jake Chen 陈嘉南
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Approved by 批准人	Jesse Zhang 张士杰



报告单位（盖章）
Seal of NTEK
报告专用章
Report Seal

2. Hazards Identification 危险性概述			
Dangerous classification 物品危险分类			
Explosive risk 爆炸危险性	This article does not belong to the explosion dangerous goods 该物品不属于爆炸危险品		
Flammable risk 易燃危险性	This article does not belong to the flammable material 该物品不属于易燃危险品		
Oxidation risk 氧化危险性	This article does not belong to the oxidation of dangerous goods 该物品不属于氧化危险品		
Toxic risk 毒害危险性	This article does not belong to the toxic dangerous goods 该物品不属于毒害危险品		
Radioactive risk 放射危险性	This article does not belong to the radiation of dangerous goods 该物品不属于放射危险品		
Mordant risk 腐蚀危险性	This article does not belong to the corrosion of dangerous goods 该物品不属于腐蚀危险品		
Other risk 其他危险性	Lithium-ion batteries, The Watt-hour rating of the battery is 0.135Wh 锂离子电池，该电池额定瓦时为0.135Wh		
3. COMPOSITION INFORMATION 成分/组成信息			
Chemical Composition 化学成分		CAS No. CAS号	Weight (%) 重量百分比
Cobalt Lithium Oxide 钴酸锂		12190-79-3	30-40
Graphite 石墨		7782-42-5	15-20
Electrolyte 电解液	Lithium hexafluorophosphate 六氟磷酸锂	21324-40-3	15-20
	Ethylene carbonate 碳酸乙烯酯	96-49-1	
	Ethyl methyl carbonate 碳酸甲乙酯	623-53-0	
	Diethyl carbonate 碳酸二乙酯	105-58-8	
PVDF 聚偏氟乙烯		24937-79-9	0-1
CMC 羧甲基纤维素钠		9004-32-4	0-1
Iron 铁		7439-89-6	10-20
Aluminum 铝		7429-90-5	0-5

Copper 铜	7440-50-8	0-5
Nickel 镍	7440-02-0	0-5
Other 其它	/	0-5

4. First aid measures 急救措施

Once battery shell rupture, content contact with the human body will produce harm, once contact, should take the following emergency measures:

电池外壳破裂，内容物接触人体产生危害，一旦发生接触，应采取以下应急措施：

Eye:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

眼睛:

万一接触，立即用大量的清水冲洗至少15分钟，翻起上下眼睑，直到化学的残留物消失为止，迅速就医。

Skin:

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

皮肤:

万一接触，用大量水冲洗至少15分钟，同时除去污染的衣物和鞋子，迅速就医。

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

吸入:

立即从暴露处移至空气清新处，如果呼吸困难给予输氧，立即就医。

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician

食入:

饮用两杯牛奶或水。如果当事人仍然清晰可以采取催吐的方法，并且立即就医。

5. Fire-fighting measures 消防措施

Flash Point: N/A.

燃点: 不适用

Auto-Ignition Temperature: N/A.

自燃温度: 不适用

Extinguishing Media: Water, CO₂.

灭火介质: 大量水（降温），二氧化碳

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

特殊灭火程序: 自给式呼吸器

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

异常火灾或爆炸: 当电芯暴露于过热的环境中时，安全阀可能会打开。

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

燃烧产生的危险物品: 一氧化碳，二氧化碳，锂氧化物烟气。

6. Accidental release measures

泄露应急处理

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

为防止电池材料泄露或释放采取的措施

如果电池内部材料泄露，试验人员应立即撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区，清除溢出的液体，将泄露电池放进塑料袋中，然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

废弃物处置方法

建议将电池完全放电，消耗电池内部的锂金属，并且深埋于土壤中。

7. Handling and storage

操作处置和储存

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

操作处置和储存中的防范措施

禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风等温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

其他要注意的防范措施

拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。禁止短接或将电池正负极错误的安装在设备中。

8. Exposure controls/personal protection

接触控制/个人防护

Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

呼吸防护: 当电池排气阀打开时, 应尽量使通风设备开至最大, 避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下, 呼吸保护是不必要的。

Ventilation: Not necessary under conditions of normal use.

通风条件: 正常使用条件下不需要。

Protective Gloves: Not necessary under conditions of normal use.

防护手套: 正常使用条件下不需要。

Other Protective Clothing or Equipment: Not necessary under conditions of normal use.

其他防护服装或设备: 正常使用条件下不需要。

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

电池开阀试验时应做好个人防护: 呼吸防护, 防护手套, 防护服装和有护边的安全玻璃罩都是要准备的。

9. Physical and chemical properties

物理和化学特性

Appearance: Button

外形: 扣式

Odors: If leaking, smells of medical ether.

气味: 泄漏时, 有醚的气味。

PH: Not applicable as supplied.

酸碱度: 不适用

Flash Point: Not applicable unless individual components exposed.

燃点: 除单个电芯暴露试验外其他不适用。

Flammability: Not applicable unless individual components exposed.

可燃性: 除单个电芯暴露试验外其他不适用。

Relative density: Not applicable unless individual components exposed.

相对密度: 除单个电芯暴露试验外其他不适用。

Solubility (water): Not applicable unless individual components exposed.

溶解性 (水溶性): 除单个电芯暴露试验外其他不适用。

Solubility (other): Not applicable unless individual components exposed.

溶解性 (其他): 除单个电芯暴露试验外其他不适用。

10. Stability and reactivity
稳定性和反应活性

Stability: Product is stable under conditions described in Section 7.

稳定性: 产品在第 7 节所述的条件下稳定。

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

应避免的条件: 加热 70°C 以上或焚烧。变形。毁坏。粉碎。拆卸。过充电。短路。长时间暴露在潮湿的条件下。

Materials to avoid: Oxidising agents, alkalis, water.

应避免的材料: 氧化剂, 碱, 水。

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

危险分解物: 有毒烟雾, 并可能形成过氧化物。

Hazardous Polymerization: N/A.

聚合危害: 不适用

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

如果发生泄露, 避免与强氧化剂, 无机酸, 强碱, 卤代烃接触。

11. Toxicological information
毒理学资料

Signs & symptoms: None, unless battery ruptures.

标志及症状: 无, 除非电池破裂。

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin. 内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。

Inhalation: Lung irritant.

吸入: 对肺有刺激性。

Skin contact: Skin irritant.

皮肤接触: 对皮肤刺激性。

Eye contact: Eye irritant.

眼睛接触: 对眼睛有刺激性。

Ingestion: Poisoning if swallowed.

食入: 吞下中毒。

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

下列情况下健康状况会恶化: 万一发生与电池内部材料接触的事故, 轻微或严重的刺激, 都可能使皮肤出现干燥和灼烧的感觉, 并且损坏靶器官(肝脏, 肾脏)的神经。

12. Ecological information 生态学资料		
Mammalian effects: None known at present. 对哺乳动物的影响: 目前未知。 Eco-toxicity: None known at present. 生态毒性: 目前未知。 Bioaccumulation potential: Slowly Bio-degradable. 生物体内积累: 慢慢地生物降解。 Environmental fate: None known environmental hazards at present. 环境危害: 目前没有已知的环境危害。		
13. Disposal consideration 废弃处置		
Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations. 不要焚烧, 或使电池温度超过 70°C, 这种滥用可导致泄漏和/或电池爆炸。按照相应的地方性法规处理。		
14. Transport information 运输信息		
UN No. and Shipping name: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment UN编号及运输专有名称: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment Label for conveyance: Lithium Battery Mark, class 9 lithium battery hazard label (Only for UN3480), Cargo Aircraft Only Label (Only for UN3480) 运输标签: 锂电池标记, 第 9 类锂电池危险品标签 (只适用UN3480), 仅限货机标签 (只适用UN3480) Packaging Group/包装等级: N/A/不适用 EmS No./EmS 编号: F-A, S-I Marine pollutants/海洋污染物: No/否		
ICAO/IATA	Shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions PI 965 IB, PI 966 II, PI 967 II 根据国际民用航空组织(ICAO), TI或者国际航空协会(IATA), DGR包装说明PI 965 IB, PI 966 II, PI 967 II相关规定进行空运	DGR 65 th (2024) ICAO (2023-2024 edition)
IMDG CODE	Shipped by sea in accordance with International Maritime Dangerous Code (IMDG CODE) Special Provision 188 根据《国际海运危险货物规则》(IMDG CODE)特殊规定188条款相关规定运输	IMDG CODE (Amdt. 41-22)

15. Regulation information 法规信息

Law information 法律信息

《Dangerous Goods Regulations》

《危险品规则》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《关于危险货物运输的建议书 规章范本》

《International Maritime Dangerous Goods Code》

《国际海运危险货物规则》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险品安全运输技术指令》

16. Other Information 其他信息

This file is only effective to the batteries (1040W1) provided by commissioner (Chongqing VDL Electronics Co., Ltd.) which manufactured by Chongqing VDL Electronics Co., Ltd. The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. Shenzhen NTEK New Energy Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries.

本文件仅对由委托方（重庆市紫建电子股份有限公司）提供的，并由重庆市紫建电子股份有限公司生产的电池（1040W1）有效。该电池的成分信息由委托方提供并承诺其完整性和准确性。用户应仔细阅读此文件，并按照正确的方法使用电池，如因电池使用不当造成的损害或损失，深圳市北测新能源技术有限公司不承担任何责任。

--End of Material Safety Data Sheet 材料安全数据表结束--

Important Notice

注意事项

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本报告书无本公司报告专用章、骑缝章无效。

2. Nobody is allowed to photocopy or partly photocopy this test report without written permission of NTEK.

未经本试验室书面同意，不得部分地复制本报告。

3. The test report is invalid without the signatures of Approver, Reviewer and Preparer.

本报告书无批准人、审核人及编制人签名无效。

4. The report is invalid when anything of following happens – illegal transfer, reproduce, embezzlement, imposture, modification or tampering in any media form.

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5. Objections to the test report must be submitted to NTEK within 15 days.

对报告书若有异议，应于收到报告之日起15天内向本公司提出。

6. The Chinese contents in this report are only for reference.

本报告中的中文内容仅供参考。

Shenzhen NTEK New Energy Technology Co., Ltd.

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Website 网址：http://www.ntekbat.org.cn



中国认可
检验
INSPECTION
CNAS IB0071



NO.2625011483

安全技术说明书 (SDS)

中文名称: 锂电池 AHB413645PCT 3.7V 700mAh 2.59Wh

英文名称: Li-ion battery AHB413645PCT 3.7V 700mAh 2.59Wh

生效日期: 2025年01月10日

编制人: 贺小双

审核人: 刘婉卿

批准人: 董学胜

上海化工院检测有限公司



昆山兴能能源科技有限公司

安全技术说明书

SDS

锂电池 AHB413645PCT 3.7V 700mAh 2.59Wh

第一部分 化学品及企业标识

中文名称: 锂电池 AHB413645PCT 3.7V 700mAh 2.59Wh
英文名称: Li-ion battery AHB413645PCT 3.7V 700mAh 2.59Wh
企业名称: 昆山兴能能源科技有限公司
地址: 昆山市经济开发区南河路688 号
邮编: 215300
E-mail: wang.j@synst.com.cn
传真号码: /
应急咨询电话: 86-17712239299
化学品的推荐用途和限制用途: /

技术说明书编码: 2625011483
生效日期: 2025年01月10日

第二部分 危险性概述

本品不在GHS体系涵盖的范围内。

主要危险性:

火灾或爆炸危险:

当锂离子电池损坏或处理不当(机械损伤或过度充电),其内部的易燃液态电解质在温度高于150℃时会泄露、着火和产生火花;该类物品可能迅速燃烧并伴有闪燃;可能会引燃邻近的其他电池。

健康危害:

电池的电解质会刺激皮肤、眼睛和黏膜组织。燃烧可能产生刺激性、腐蚀性和/或毒性气体。烟雾可能导致头晕或窒息。

第三部分 成分/组成信息

化学品名称: 锂电池 AHB413645PCT 3.7V 700mAh 2.59Wh

成份	含量	CAS NO.	EC NO.
氧化锂钴	33.46%	12190-79-3	235-362-0
炭黑	16.027%	1333-86-4	215-609-9
铝	14.6%	7429-90-5	231-072-3
铜	7.87%	7440-50-8	231-159-6

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碳酸乙烯酯	5.015%	96-49-1	202-510-0
尼龙	3.850%	32131-17-2	608-706-6
碳酸甲乙酯	3.74%	623-53-0	433-480-9
碳酸二乙酯	3.72%	105-58-8	203-311-1
聚丙烯	2.67%	9003-07-0	618-352-4
六氟磷酸锂	1.82%	21324-40-3	244-334-7
聚乙烯	1.759%	9002-88-4	680-352-5
聚偏二氟乙烯	1.539%	24937-79-9	200-867-7
氧化铝	1.477%	1344-28-1	215-691-6
碳材 石墨	0.789%	7782-42-5	231-955-3
镍	0.60%	7440-02-0	231-111-4
丁苯橡胶	0.283%	9003-55-8	618-370-2
聚(苯二甲酸乙二酯)	0.24%	25038-59-9	607-507-1
羧甲基纤维素钠	0.188%	9004-32-4	618-378-6
碳材	0.158%	7440-44-0	231-153-3
1, 3-丙烷磺内酯	0.09%	1120-71-4	214-317-9
丙烯酸	0.06%	79-10-7	201-177-9
碳酸亚乙烯酯	0.045%	872-36-6	212-825-5

第四部分 急救措施

皮肤接触:	若接触到电池内的物质, 脱去受污染的衣物和鞋袜, 立即用流动清水冲洗20分钟以上。如刺激持续, 就医。
眼睛接触:	若接触到电池内的物质, 立即提起眼睑, 立即用流动清水冲洗20分钟以上。如刺激持续, 就医。
吸入:	若吸入电池内的物质, 立即脱离现场至空气新鲜处。若呼吸困难, 给氧; 若呼吸停止, 人工呼吸。就医。
食入:	若食入电池内的物质, 禁止催吐。立即就医。
最重要的急性和延迟症状/影响:	无资料。
必要时注明立即就医及所需的特殊治疗:	无资料。

第五部分 消防措施

适当的灭火剂:	可用水幕和普通泡沫灭火剂灭火。
化学品产生的具体危险:	燃烧可能产生刺激性、腐蚀性和或毒性气体。烟雾可能导致头晕或窒息。
消防人员的特别防护行动:	消防员应戴自给正压式呼吸器, 穿消防防护服以防止皮肤和眼睛接触。在上风处灭火。不相关人员疏散至安全区域。

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第六部分 泄漏应急处理

个人防护措施、防护设备和应急程序:	使用个人防护设备。确保足够的通风。确保人群远离泄露区或处于泄露区上风向。不相关人员禁止进入。移除所有点火源。
环境防护措施:	避免泄露物进入地表、沟渠或水域。清洗废水避免直接释放至环境中。
控制和清洁的方法和材料:	如电解液泄漏, 用土、沙或其他不可燃材料吸附, 漏损的电池和污浊的吸附物应放入金属容器。

第七部分 操作处置与储存

安全操作的防护措施:	操作人员应经过培训, 严格遵守操作规程。建议操作人员穿一般作业防护服, 戴安全手套。远离火种、热源。避免高温。工作场所严禁吸烟。工作场所应有通风系统和设备。避免随意拆卸电池和弄错正负极。须牢固在内包装中, 以有效防止短路和防止可导致短路的移动。万一电池内的物质泄漏, 避免眼睛、皮肤直接接触, 避免吸入。应与强氧化剂、易燃物和其它腐蚀品分开存放。
安全储存的条件, 包括一切不相容性:	储存于阴凉、通风及干燥的库房内。远离火种、热源。避免高温。应与强氧化剂、易燃物和其它腐蚀品分开存放。须牢固在内包装中, 以有效防止短路和防止可导致短路的移动。储存区配备相应品种和数量的消防器材、泄漏应急处理设备和合适的收容材料。

第八部分 接触控制/个体防护

控制参数:	GBZ 2.1-2019 《工作场所有害因素职业接触限值 化学有害因素》: 金属镍与难溶性镍化合物: PC-TWA $1\text{mg}/\text{m}^3$ 备注: G2B (金属和合金) 备注: G1 (镍化合物), 敏钴及其氧化物, 按Co计: PC-TWA $0.05\text{mg}/\text{m}^3$ PC-STEEL $0.1\text{mg}/\text{m}^3$ (备注: G2B) 敏 石墨粉尘: PC-TWA $4\text{mg}/\text{m}^3$ (总尘) $2\text{mg}/\text{m}^3$ (呼吸) 炭黑粉尘: PC-TWA $4\text{mg}/\text{m}^3$ (总尘) (备注: G2B) 铝金属、铝合金粉尘: PC-TWA $3\text{mg}/\text{m}^3$ (总尘) 铜: 铜尘 PC-TWA $1\text{mg}/\text{m}^3$; 铜烟 PC-TWA $0.2\text{mg}/\text{m}^3$ 聚乙烯粉尘: PC-TWA 总尘: $5\text{mg}/\text{m}^3$ 聚丙烯粉尘: PC-TWA $5\text{mg}/\text{m}^3$ (总尘) 草酸: PC-TWA $1\text{mg}/\text{m}^3$; PC-STEEL $2\text{mg}/\text{m}^3$ 氧化铝粉尘: PC-TWA $4\text{mg}/\text{m}^3$ (总尘) 丙烯酸: PC-TWA $6\text{mg}/\text{m}^3$ 备注: 皮 ACGIH: 炭黑: TLV-TWA: $3\text{mg}/\text{m}^3$ (可吸入粉尘) 石墨: TLV-TWA $2\text{mg}/\text{m}^3$ 镍粉 [粒径 $<1\text{mm}$]: TLV-TWA $1.5\text{mg}/\text{m}^3$ 草酸: TLV-TWA $1\text{mg}/\text{m}^3$; TLV-STEEL $2\text{mg}/\text{m}^3$ 铝: TLV-TWA: $1\text{mg}/\text{m}^3$ 铜: TLV-TWA $1\text{mg}(\text{Cu})/\text{m}^3$, 粉尘, 烟雾 TLV-TWA $0.2\text{mg}(\text{Cu})/\text{m}^3$ 烟雾 氧化铝: TLV-TWA $10\text{mg}/\text{m}^3$ (不含石棉的, 小于1%结晶二氧化硅的细颗粒) 丙烯酸: TLV-TWA 2ppm
适当的工程控制:	有通风系统和设备。提供安全淋浴和洗眼设备。
个体防护措施:	
眼/面部防护:	若需要, 戴安全防护眼镜。
皮肤防护:	手防护: 戴安全手套。 身体防护: 穿一般作业防护服。
呼吸系统防护:	若需要, 戴管理部门认可的面罩。
高温危害:	无资料。
其他防护:	工作现场严禁吸烟、进食和饮水。工作后, 淋浴更衣。

第九部分 理化特性

外观：银色, 黄色双色铝塑外壳
气味：无臭
pH值：8-9
溶解性：部分溶于水
熔点/凝固点：>300℃
沸点、初始沸点和沸程：无资料

闪点(闭杯)：无资料
密度/相对密度：无资料
运动黏度：无资料
燃烧上下极限或爆炸极限：无资料
蒸气压：无资料
相对蒸气密度：无资料
n-辛醇/水分配系数(对数无资料值)：无资料
自燃温度：无资料
分解温度：无资料
颗粒特征：无资料
易燃性(固体、气体)：无资料

第十部分 稳定性与反应活性

反应性：无资料。
化学稳定性：常温常压下稳定。
危险反应的可能性：无资料。
应避免的条件：误操作, 明火, 高温, 机械滥用, 过充电, 防止短路和防止可导致短路的移动。
不相容材料：强氧化剂、易燃物和其它腐蚀品。
危害性分解产物：碳的氧化物、金属氧化物等。

第十一部分 毒理学资料

急性毒性：无资料。
皮肤腐蚀/刺激：电池内的电解液对皮肤有刺激性。
严重眼损伤/眼刺激：电池内的电解液对眼睛有刺激性。
呼吸致敏：无资料。
皮肤致敏：无资料。
生殖细胞致突变性：无资料。
致癌性：无资料。
生殖毒性：无资料。

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特定目标器官毒性-单次 无资料。

接触:

特定目标器官毒性-重复 无资料。

接触:

吸入危险: 无资料。

第十二部分 生态学资料

毒性: 无资料。

持久性和降解性: 无资料。

潜在的生物累积性: 无资料。

在土壤中的流动性: 无资料。

其他有害效应: 无资料。

第十三部分 废弃处理

废弃处置方法:

废弃电池的处置应符合《中华人民共和国固体废物污染环境防治法》、《废电池污染防治技术政策》等有关法律、法规、政策和标准的要求。建议交给具有资格的化学废物处理部门处置。对于用过的而且将被运送去销毁或回收的电池,在运输前应对其仔细检查,以确保每节电池都是完好无损而且适合运输的。

第十四部分 运输信息

锂电池单独运输:

通过联合国《试验和标准手册》UN38.3试验和《规章范本》SP188的1.2m跌落测试。锂电池总净重<10kg。

RID/ADR (2023版):

根据RID/ADR特殊规定188,运输时不受本规则其它规定限制。

根据2.2.9.1.7(g),锂电池或电池组的制造商和出厂后的销售商应提供联合国《试验和标准手册》第III部分第38.3小节第38.3.5段规定的UN38.3试验概要。

IATA DGR (66版):

危险性类别: 9

UN编号: UN3480

运输名称: 锂离子电池组

本品应满足包装说明965的基本要求和第IB部分的规定。

包装件必须能够承受IATA DGR中包装说明965-IB所要求的堆码试验。根据3.9.2.6.1(g),2003年06月30日之后生产的锂电池或电池组的制造商和出厂后的销售商应提供联合国《试验和标准手册》第III部分第38.3小节第38.3.5段规定的UN38.3试验概要。

IMO IMDG CODE (2022版): 根据IMO IMDG CODE特殊规定188,运输时不受本规则其它规定限制。

根据2.9.4.7,锂电池或电池组的制造商和出厂后的销售商应提供联合国《试验和标准手册》第III部分第38.3小节第38.3.5段规定的UN38.3试验概要。

第十五部分 法规信息

国内法规:

锂电池单独运输:

《危险货物道路运输规则》(JT/T 617-2018): 联合国编号为: 3480, 中文名称和描述: 锂离子电池。

该型号锂电池通过联合国《试验和标准手册》UN38.3试验,根据特殊规定188,运输时不受限制。

NO.2625011483

《危险货物品名表》(GB联合国编号为: 3480, 名称和说明: 锂离子电池组, 包装类别: II。
12268-2012): 该型号锂电池通过联合国《试验和标准手册》UN38.3试验, 根据特殊规定188, 运输时不受限制。
《铁路危险货物品名表》编号为: 91045, 品名: 锂离子电池组。
(TB/T 30006-2022): 该型号锂电池通过联合国《试验和标准手册》UN38.3试验, 根据特殊规定78, 79, 运输时不受限制。

国际法规:

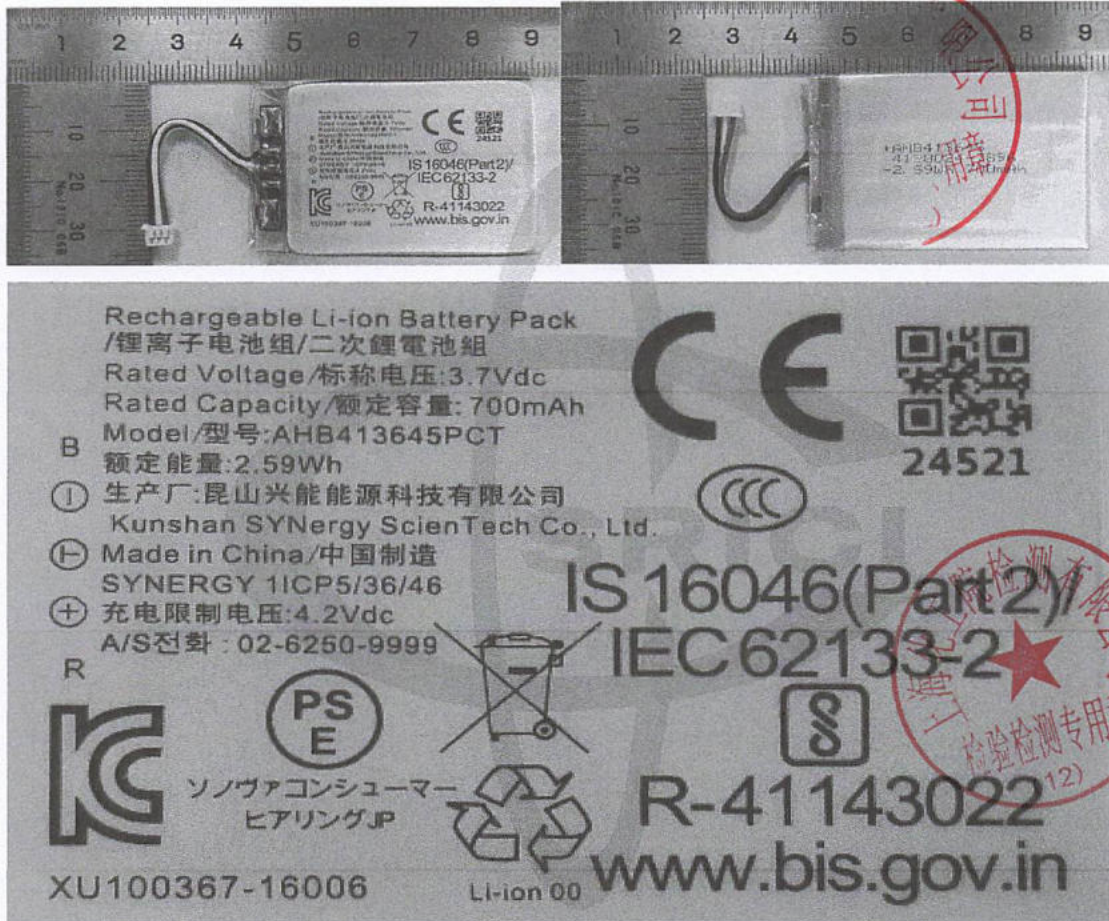
欧盟指令(EU)2023/1542 电池的标记, 处置, 回收等应满足欧盟指令(EU) 2023/1542及2013/56/EU中的规定。
及2013/56/EU:

ICAO TI: 1. 除非依据《技术细则》的相关要求取得豁免, 单独包装的锂离子电池(芯)(UN 3480, PI 965)和锂金属电池(芯)(UN 3090, PI 968)货物禁止使用客机运输。
2. 除非依据《技术细则》的相关要求取得特别批准, 按照包装说明965要求运输的锂离子电池(芯)货物, 交运时锂离子电池(芯)的荷电状态不得超过其额定容量的30%。

第十六部分 其他信息

编制日期: 2025年01月10日
编制部门: 上海化工院检测有限公司
电话(传真): +86-21-52815377/31765555
修改信息: 第0次修订
缩略语和首字母缩写: CAS: 美国化学文摘社 EC: 欧盟委员会 PC-TWA: 时间加权平均容许浓度 PC-STEL: 短时间接触容许浓度 TLV-TWA: 时间加权平均阈限值 TLV-STEL: 短时间接触阈限值 ACGIH: 美国政府工业卫生学家委员会 G2B: 可疑人类致癌物 敏: 该物质可能有致敏作用 RID: 国际铁路运输危险货物规则 ADR: 关于国际公路运输危险货物的欧洲协议 IATA DGR: 国际航空运输协会 危险货物规则 IMO IMDG CODE: 国际海事组织 国际海运危险货物规则 EU: 欧洲联盟 ICAO TI: 国际民用航空组织 危险物品安全航空运输技术细则 PI: 包装说明
其他信息: 本SDS报告仅针对电池。报告内容是根据申请单位提供的成分含量等信息和我司现有知识编写, 仅作为指导使用。如果电池被用于其它产品中的组件, 本SDS报告的信息可能不适用。本SDS的使用者必须对内容的正确性与完整性做出独立判断, 根据实际情况决定其适用性, 并对使用后果承担相关法律责任。

NO.2625011483



报告结束



中国认可
检验
INSPECTION
CNAS IB0071



NO.2625011483

SAFETY DATASHEET

Product Name: Li-ion battery AHB413645PCT 3.7V 700mAh 2.59Wh

Effective Date: 2025-01-10

Compiler: He Xiaoshuang

Checker: Liu Wangqing

Approver: Dongxuesheng



Shanghai Institute of Chemical Industry Testing Co., Ltd.



Kunshan SYNergy ScienTech Co.,Ltd.

SAFETY DATA SHEET

Li-ion battery AHB413645PCT 3.7V 700mAh 2.59Wh

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Li-ion battery AHB413645PCT 3.7V 700mAh 2.59Wh
Company: Kunshan SYNergy ScienTech Co.,Ltd.
Address: No.688, Nanhe Road, Kunshan Economic Development Zone,215300,P.R.China
Email: wangj@synst.com.cn
Fax: /
Emergency Phone: 86-17712239299
Recommend use of the chemical and restrictions on use: /
SDS Number: 2625011483
Effective Date: 2025-01-10

SECTION2 HAZARDS IDENTIFICATION

The product is outside of the scope of GHS system.

Main Hazards:

Fire or Explosion Hazards:

Lithium ion battery contains flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperatures (>150°C), when damaged or abused (e.g., mechanical damage or electrical overcharging). May burn rapidly with flare-burning effect. May ignite other batteries in close proximity.

Health Hazards:

Contact with battery's 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.

SECTION3 INFORMATION ON INGREDIENTS

Product name: Li-ion battery AHB413645PCT 3.7V 700mAh 2.59Wh

Ingredient	Concentration	CAS No.	EC No.
Lithium cobalt oxide	33.46%	12190-79-3	235-362-0

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Carbon black	16.027%	1333-86-4	215-609-9
Aluminum	14.6%	7429-90-5	231-072-3
Copper	7.87%	7440-50-8	231-159-6
Ethylene carbonate	5.015%	96-49-1	202-510-0
NYLON	3.85%	32131-17-2	608-706-6
Ethyl methyl carbonate	3.74%	623-53-0	433-480-9
Diethyl carbonate	3.72%	105-58-8	203-311-1
Polypropylene	2.67%	9003-07-0	618-352-4
Lithium hexafluorophosphate	1.82%	21324-40-3	244-334-7
Polyethylene	1.759%	9002-88-4	680-352-5
Polyvinylidene fluoride	1.539%	24937-79-9	200-867-7
Aluminum oxide	1.477%	1344-28-1	215-691-6
Carbon: Graphite	0.789%	7782-42-5	231-955-3
Nickel	0.60%	7440-02-0	231-111-4
Styrene-butadiene rubber	0.283%	9003-55-8	618-370-2
Polyethylene Terephthalate	0.24%	25038-59-9	607-507-1
Sodium carboxymethyl cellulose	0.188%	9004-32-4	618-378-6
Carbon	0.158%	7440-44-0	231-153-3
1,3-Propane sultone	0.09%	1120-71-4	214-317-9
Acrylic acid	0.06%	79-10-7	201-177-9
Vinylene carbonate	0.045%	872-36-6	212-825-5

SECTION 4 FIRST-AID MEASURES

Skin Exposure:

If the internal battery's materials of an opened battery cell come into contact with the skin, remove the contaminated clothing and footwear, immediately flush with plenty of water for at least 20 minutes. If irritation persists, call a physician.

Eye Exposure:

In case of the internal battery's materials in contact with eyes, lift your eyelids immediately and rinse them with running water for more than 20 minutes. If irritation persists, call a physician.

Inhalation Exposure:

If inhaled the internal battery's materials, immediately remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician.

Oral Exposure:

If swallowed the internal battery's materials, do not induce vomiting. Call a physician immediately.

Most Important Symptoms/Effects, Acute and Delayed:

No data available.

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:

No data available.

NO.2625011483

SECTION5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Suitable:Water spray or regular foam.

Specific Hazards Arising from the Chemical:

May decompose upon combustion to generate irritating, corrosive or toxic fumes. Fumes may cause dizziness or suffocation.

Special Protective Action for Fire-fighters:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fire-extinguishing work is done from the windward. Uninvolved persons should evacuate to a safe place.

SECTION6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Entry to noninvolved personnel should be controlled around the leakage area by roping off. Remove all sources of ignition.

Environmental Precautions:

Avoid leakage enter the earth, ditches or waters. Avoid directly release the cleaning waste water into the environment.

Methods and Materials for Containment and Cleaning Up:

If the electrolyte leaks, use soil, sand or other non-combustible materials to absorb. The leaked batteries and dirty adsorbents should be placed in metal containers.

SECTION7 HANDLING AND STORAGE

Precautions for Safe Handling:

Operators should be trained and strictly abide by operating procedures. Wear appropriate protective clothing and safety gloves. Keep away from ignition sources, heat and flame. No smoking at working site. Handling is performed in a well ventilated place. Avoid disassembling the battery at will and reversing battery polarity within the battery assembly. Such batteries must be packed in inner packaging in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. In case of leakage of the material in the battery, avoid directly contact with eyes and skin. Avoid inhalation. Incompatibilities: Strong oxidizing agents, Combustible materials and Corrosives.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in a cool, dry, and well-ventilated area. Keep away from ignition sources, heat and flame.

Incompatibilities: Strong oxidizing agents, Combustible materials and Corrosives. Such batteries must be packed in inner packaging in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Storage place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

SECTION8 EXPOSURE CONTROL/PPE

Control Parameters:

NO.2625011483

GBZ 2.1-2019 Occupational Exposure Limits for Hazardous Agents in the Workplace - Part 1: Chemical Hazardous Agents:

Metallic nickel and insoluble nickel compounds: PC-TWA 1 mg/m³, Remark:G2B(metal and alloys), Remarks: G1 (Nickel compounds), sensitization

Cobalt and compounds, as Co PC-TWA 0.05mg/m³ PC-STEL 0.1mg/m³ Remarks: G2B; Sensitization

Graphite dust: PC-TWA 4mg/m³ (total dust) PC-TWA 2mg/m³ (respiratory dust)

Carbon black dust: PC-TWA 4 mg/m³(total dust) Remark: G2B

Aluminum metal, aluminum alloy dust: PC-TWA 3 mg/m³ (Total dust)

Copper (calculated as Cu) : Copper dust PC-TWA 1 mg/m³; Copper smoke PC-TWA 0.2 mg/m³

Polyethylene dust: PC-TWA 5mg/m³ (Total dust)

Polypropylene dust: PC-TWA 5mg/m³(total dust)

Oxalic acid: PC-TWA 1mg/m³ PC-STEL 2mg/m³

Aluminium oxide dust PC-TWA: 4 mg/m³(total dust)

Acrylic acid: PC-TWA 6mg/m³ Remark: Skin

ACGIH:

Carbon black: TLV-TWA: 3 mg/m³ (Inhalable dust)

Graphite: TLV-TWA 2 mg/m³

Nickell, powder [particle diameter < 1 mm]: TLV-TWA 1.5 mg/m³

Copper: TLV-TWA 1 mg (Cu) /m³ Dust, smoke: TLV-TWA 0.2 mg (Cu) /m³

Aluminum: TLV-TWA 1 mg/m³

Oxalic acid: TLV-TWA: 1 mg/m³ TLV-STEL: 2 mg/m³

Aluminium oxide: TLV-TWA 10mg/m³ (Asbestos-free, fine particles of less than 1% crystalline silica)

Acrylic acid: TLV-TWA 2ppm

Appropriate Engineering Controls:

Mechanical exhaust required. Safety shower and eye bath.

Individual Protection Measures:

Eye/Face Protection:

Wear chemical safety glasses if needed.

Skin Protection:

Hand Protection: Wear safety gloves.

Body Protection: Wear appropriate protective clothing.

Respiratory Protection:

Wear government approved respirator if needed.

Thermal hazards:

No data available.

Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance: Silvery and yellow aluminum-plastics shell

Odor: Odorless

pH Value: 8-9

Solubility: Partial soluble in water

Boiling Point, No data available

Initial Boiling
Point and Boiling

Range:
Melting >300°C

Point/Freezing
Point:

NO.2625011483

Flash Point No data available
 (Closed Cup):
 Density/Relative No data available
 Density:
 Kinematic No data available
 Viscosity:
 Lower/Upper No data available
 Explosion
 Limit/Flammability Limit:
 Vapour Pressure: No data available

Relative Vapor No data available
 Density:
 Partition No data available
 Coefficient
 N-Octanol/Water(Log Value):
 Autoignition No data available
 Temperature:
 Decomposition No data available
 Temperature:
 Particle No data available
 characteristics:

Flammability No data available
 (Solid, Gas):

SECTION10 STABILITY AND REACTIVITY

Reactivity:

No data available.

Chemical Stability:

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions:

No data available.

Conditions to Avoid:

Avoid misoperation, exposure to heat and open flame. Avoid mechanical or electrical abuse and overcharge.
 Prevent short circuits. Prevent movement which could lead to short circuits.

Incompatible Materials:

Strong oxidizing agents, Combustible materials and Corrosives.

Hazardous Decomposition Products:

Carbon oxides, metal oxides, etc.

SECTION11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

No data available.

Skin Corrosion/Irritation:

The electrolyte in the battery causes skin irritation.

Serious Eye Damage/Irritation:

The electrolyte in the battery causes eye irritation.

Respiratory Sensitization:

No data available.

Skin Sensitization:

No data available.

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Carcinogenicity:

No data available.

Germ Cell Mutagenicity:

No data available.

Reproductive Toxicity:

No data available.

Specific Target Organ Toxicity -Single Exposure:

No data available.

Specific Target Organ Toxicity -Repeated Exposure:

No data available.

Aspiration Hazard:

No data available.

SECTION12 ECOLOGICAL INFORMATION**Toxicity:**

No data available.

Persistence and Degradability:

No data available.

Bioaccumulative Potential:

No data available.

Mobility in Soil:

No data available.

Other Adverse Effects:

No data available.

SECTION13 DISPOSAL CONSIDERATION**Disposal Methods:**

The disposal of discarded battery shall comply with the requirements of relevant laws, regulations, policies and standards such as the "Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste" and "Technical Policy for the Prevention and Control of Waste Battery Pollution". Contact a licensed professional waste disposal service to dispose of wastes. Used battery being transported for disposal or reclamation should be carefully checked prior to shipment to ensure the integrity of each battery and its suitability for transport.

SECTION14 TRANSPORT INFORMATION

**Only Lithium
Battery during
Transport:**

The product has passed the test items of Manual of Tests and Criteria Section 38.3 and UN Model Regulations, SP188, 1.2m drop test. The total net weight of the Lithium batteries is less than 10 kg.

**RID/ADR (2023
Edition) :**

The product is not subject to the other provisions of RID/ADR according to special provision 188.

According to 2.2.9.1.7(g), Manufacturers and subsequent distributors of cells or batteries manufactured shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

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IATA DGR (66th Edition) : Hazard Class: 9
 UN Number: UN3480
 Proper Shipping Name: Lithium ion batteries
 The product shall meet the General Requirements and section IB of Packaging Instruction 965.
 The package must be capable of withstanding the stacking test required in PI 965- IB.
 According to 3.9.2.6.1(g), Manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

IMO IMDG CODE (2022 Edition) : The product is not subject to the other provisions of IMO IMDG Code according to special provision 188.
 According to 2.9.4.7, Manufacturers and subsequent distributors of cells or batteries manufactured shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

SECTION15 REGULATORY INFORMATION

Domestic Regulations:

Only Lithium Battery during Transport:

Regulations Concerning Road Transportation Of Dangerous Goods(JT/T 617-2018):

UN Number: UN3480

Name and Description: Lithium ion batteries

The product has passed the test items of Manual of Tests and Criteria Section 38.3.

The product is not subject to JT/T 617-2018 according to special provision 188.

List of Dangerous Goods (GB 12268-2012) :

UN Number: UN3480

Shipping Name: Lithium ion batteries

Packing Group: II

The product has passed the test items of Manual of Tests and Criteria Section 38.3.

The product is not subject to GB 12268-2012 according to special provision 188.

List of Dangerous Goods by Rail(TB/T 30006-2022):

Number: 91045 Name of Product: Lithium ion batteries

The product has passed the test items of Manual of Tests and Criteria Section 38.3. The product is not subject to TB/T 30006-2022 according to special provision 78.79.

International Regulations:

Directive (EU)2023/1542 and 2013/56/EU:

The label, disposal and recycling of the battery shall meet the requirements of EU Directive (EU)2023/1542 and 2013/56/EU.

ICAO TI:

1. Unless be exempted according to ICAO TI, the lithium ion cell/batteries (UN 3480, PI 965) and lithium metal cell/batteries (UN 3090, PI 968) are forbidden for carriage on passenger aircraft.
2. Unless be approved according to ICAO TI, Lithium ion cells/batteries (UN 3480, PI 965) must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity.

SECTION16 OTHER INFORMATION

Preparation Date:

2025-01-10

NO.2625011483

Preparation Department:

Shanghai Institute of Chemical Industry Testing Co., Ltd. Tel(Fax):+86-21-52815377/31765555

Revision:

0

Abbreviations and Acronyms:

CAS: Chemical Abstracts Service EC: European Commission PC-TWA: Permissible concentration-time weighted average PC-STEL: Permissible concentration-short term exposure limit TLV-TWA: Threshold limit value-time weighted average TLV-STEL: Threshold limit value-short term exposure limit ACGIH: American Conference of Governmental Industrial Hygienists G2B: Possibly carcinogenic to humans Sensitization: The substance may have allergenic effects RID: Regulations concerning the International Carriage of Dangerous Goods by Rail ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IATA DGR: International Air Transport Association Dangerous Goods Regulations IMO IMDG CODE: International Maritime Organization International Maritime Code for Dangerous Goods EU: European Union ICAO TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air PI: Packaging Instruction

Other Information:

This SDS is only compiled for battery and based on the information such as ingredients provided by the applicant and our current knowledge. This SDS shall be used only as a guide. If the battery is used as a component in another product, the information in this SDS may not be applicable. The users of this SDS must make independent judgments on the correctness and completeness and then decide its suitability according to the actual situation. The users should take the relevant legal responsibilities for the consequences of use.

NO.2625011483



Rechargeable Li-ion Battery Pack
/ 锂离子电池组/二次锂电池组

Rated Voltage/标称电压: 3.7Vdc
Rated Capacity/额定容量: 700mAh
Model/型号: AHB413645PCT
额定能量: 2.59Wh

① 生产厂: 昆山兴能能源科技有限公司
Kunshan SYNergy ScienTech Co., Ltd.

② Made in China/中国制造
SYNERGY 1ICP5/36/46

③ 充电限制电压: 4.2Vdc
A/S전화 : 02-6250-9999

R

CE 24521

IS 16046(Part 2)
IEC 62133-2

R-41143022
www.bis.gov.in

XU100367-16006

PS E

ソノヴァコンシューマー
ヒアリングJP

LI-ion 00

◆◆◆END OF REPORT◆◆◆

Material Safety Data Sheet

材料安全数据表

Name of Goods: Rechargeable Li-ion Polymer Battery

物品名称: 可充电锂离子聚合物电池

Model and Spec.:

YJ801535, 3.7V 400mAh 1.48Wh

型号规格:

Applicant: YJ POWER GROUP LIMITED

委托单位: 广东言九电子股份有限公司

Effective date:

2024-09-10

生效日期:

Date of issue:

2024-09-10

签发日期:

Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 化学品及企业标识	
Name of Products 产品名称	Rechargeable Li-ion Polymer Battery 可充电锂离子聚合物电池
Model/Type 型号	YJ801535
Ratings 额定参数	3.7V 400mAh 1.48Wh
Applicant 委托单位	YJ POWER GROUP LIMITED 广东言九电子股份有限公司
Address of Applicant 委托单位地址	Room 101, Block 1, No. 35 Fuxing Road, Chang'an Town, Dongguan City, Guangdong, China 广东省东莞市长安镇复兴路35号1号楼101室
Manufacturer 生产厂商	YJ POWER GROUP LIMITED 广东言九电子股份有限公司
Address of manufacturer 生产厂商地址	Room 101, Block 1, No. 35 Fuxing Road, Chang'an Town, Dongguan City, Guangdong, China 广东省东莞市长安镇复兴路35号1号楼101室
Emergency telephone call 应急电话	+86-13480935393
Prepared by 编制人	Jake Chen 陈嘉南
Reviewed by 审核人	Leo Huang 黄梓涛
Approved by 批准人	Jesse Zhang 张士杰



2. Hazards Identification

危险性概述

Dangerous classification 物品危险分类	
Explosive risk 爆炸危险性	This article does not belong to the explosion dangerous goods 该物品不属于爆炸危险品
Flammable risk 易燃危险性	This article does not belong to the flammable material 该物品不属于易燃危险品
Oxidation risk 氧化危险性	This article does not belong to the oxidation of dangerous goods 该物品不属于氧化危险品
Toxic risk 毒害危险性	This article does not belong to the toxic dangerous goods 该物品不属于毒害危险品
Radioactive risk 放射危险性	This article does not belong to the radiation of dangerous goods 该物品不属于放射危险品
Mordant risk 腐蚀危险性	This article does not belong to the corrosion of dangerous goods 该物品不属于腐蚀危险品
Other risk 其他危险性	Lithium-ion batteries, The Watt-hour rating of the battery is 1.48Wh 锂离子电池，该电池额定瓦时为1.48Wh

3. COMPOSITION INFORMATION

成分/组成信息

Chemical Composition 化学成分	CAS No. CAS号	Weight (%) 重量百分比
Lithium cobalt oxide	12190-79-3	40.778
Carbon	1333-86-4	2.515
PVDF	24937-79-9	1.988
Graphite	7782-42-5	20.243
CMC	9000-11-7	1.208
SBR	9003-55-8	1.081
Aluminum foil	7429-90-5	4.451
Copper foil	7440-50-8	8.405
Lithium hexafluorophosphate	21324-40-3	19.331

4. First aid measures 急救措施

Once battery shell rupture, content contact with the human body will produce harm, once contact, should take the following emergency measures:

电池外壳破裂，内容物接触人体产生危害，一旦发生接触，应采取以下应急措施：

Eye:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

眼睛:

万一接触，立即用大量的清水冲洗至少15分钟，翻起上下眼睑，直到化学的残留物消失为止，迅速就医。

Skin:

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

皮肤:

万一接触，用大量水冲洗至少15分钟，同时除去污染的衣物和鞋子，迅速就医。

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

吸入:

立即从暴露处移至空气清新处，如果呼吸困难给予输氧，立即就医。

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician

食入:

饮用两杯牛奶或水。如果当事人仍然清晰可以采取催吐的方法，并且立即就医。

5. Fire-fighting measures 消防措施

Flash Point: N/A.

燃点: 不适用

Auto-Ignition Temperature: N/A.

自燃温度: 不适用

Extinguishing Media: Water, CO₂.

灭火介质: 大量水（降温），二氧化碳

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

特殊灭火程序: 自给式呼吸器

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

异常火灾或爆炸: 当电芯暴露于过热的环境中时，安全阀可能会打开。

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

燃烧产生的危险物品: 一氧化碳，二氧化碳，锂氧化物烟气。

6. Accidental release measures 泄露应急处理

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

为防止电池材料泄露或释放采取的措施

如果电池内部材料泄露，试验人员应立刻撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区，清除溢出的液体，将泄露电池放进塑料袋中，然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

废弃物处置方法

建议将电池完全放电，消耗电池内部的锂金属，并且深埋于土壤中。

7. Handling and storage 操作处置和储存

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

操作处置和储存中的防范措施

禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风等温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

其他要注意的防范措施

拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。禁止短接或将电池正负极错误的安装在设备中。

8. Exposure controls/personal protection

接触控制/个人防护

Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

呼吸防护: 当电池排气阀打开时, 应尽量使通风设备开至最大, 避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下, 呼吸保护是不必要的。

Ventilation: Not necessary under conditions of normal use.

通风条件: 正常使用条件下不需要。

Protective Gloves: Not necessary under conditions of normal use.

防护手套: 正常使用条件下不需要。

Other Protective Clothing or Equipment: Not necessary under conditions of normal use.

其他防护服装或设备: 正常使用条件下不需要。

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

电池开阀试验时应做好个人防护: 呼吸防护, 防护手套, 防护服装和有护边的安全玻璃罩都是要准备的。

9. Physical and chemical properties

物理和化学特性

Appearance: Prismatic

外形: 棱柱形

Odors: If leaking, smells of medical ether.

气味: 泄漏时, 有醚的气味。

PH: Not applicable as supplied.

酸碱度: 不适用

Flash Point: Not applicable unless individual components exposed.

燃点: 除单个电芯暴露试验外其他不适用。

Flammability: Not applicable unless individual components exposed.

可燃性: 除单个电芯暴露试验外其他不适用。

Relative density: Not applicable unless individual components exposed.

相对密度: 除单个电芯暴露试验外其他不适用。

Solubility (water): Not applicable unless individual components exposed.

溶解性 (水溶性): 除单个电芯暴露试验外其他不适用。

Solubility (other): Not applicable unless individual components exposed.

溶解性 (其他): 除单个电芯暴露试验外其他不适用。

10. Stability and reactivity 稳定性和反应活性

Stability: Product is stable under conditions described in Section 7.

稳定性: 产品在第 7 节所述的条件下稳定。

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

应避免的条件: 加热 70°C 以上或焚烧。变形。毁坏。粉碎。拆卸。过充电。短路。长时间暴露在潮湿的条件下。

Materials to avoid: Oxidising agents, alkalis, water.

应避免的材料: 氧化剂, 碱, 水。

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

危险分解物: 有毒烟雾, 并可能形成过氧化物。

Hazardous Polymerization: N/A.

聚合危害: 不适用

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

如果发生泄露, 避免与强氧化剂, 无机酸, 强碱, 卤代烃接触。

11. Toxicological information 毒理学资料

Signs & symptoms: None, unless battery ruptures.

标志及症状: 无, 除非电池破裂。

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。

Inhalation: Lung irritant.

吸入: 对肺有刺激性。

Skin contact: Skin irritant.

皮肤接触: 对皮肤刺激性。

Eye contact: Eye irritant.

眼睛接触: 对眼睛有刺激性。

Ingestion: Poisoning if swallowed.

食入: 吞下中毒。

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

下列情况下健康状况会恶化: 万一发生与电池内部材料接触的事故, 轻微或严重的刺激, 都可能使皮肤出现干燥和灼烧的感觉, 并且损坏靶器官(肝脏, 肾脏)的神经。

12. Ecological information 生态学资料		
Mammalian effects: None known at present. 对哺乳动物的影响: 目前未知。 Eco-toxicity: None known at present. 生态毒性: 目前未知。 Bioaccumulation potential: Slowly Bio-degradable. 生物体内积累: 慢慢地生物降解。 Environmental fate: None known environmental hazards at present. 环境危害: 目前没有已知的环境危害。		
13. Disposal consideration 废弃处置		
Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations. 不要焚烧, 或使电池温度超过 70°C, 这种滥用可导致泄漏和/或电池爆炸。按照相应的地方性法规处理。		
14. Transport information 运输信息		
UN No. and Shipping name: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment UN编号及运输专有名称: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment Label for conveyance: Lithium Battery Mark, class 9 lithium battery hazard label (Only for UN3480), Cargo Aircraft Only Label (Only for UN3480) 运输标签: 锂电池标记, 第 9 类锂电池危险品标签 (只适用UN3480), 仅限货机标签 (只适用UN3480) Packaging Group/包装等级: N/A/不适用 EmS No./EmS 编号: F-A, S-I Marine pollutants/海洋污染物: No/否		
ICAO/IATA	Shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions PI 965 IB, PI 966 II, PI 967 II 根据国际民用航空组织(ICAO), TI或者国际航空协会(IATA), DGR包装说明PI 965 IB, PI 966 II, PI 967 II相关规定进行空运	DGR 65 th (2024) ICAO (2023-2024 edition)
IMDG CODE	Shipped by sea in accordance with International Maritime Dangerous Code (IMDG CODE) Special Provision 188 根据《国际海运危险货物规则》(IMDG CODE)特殊规定188条款相关规定运输	IMDG CODE (Amdt. 41-22)

15. Regulation information
法规信息**Law information 法律信息**

《Dangerous Goods Regulations》

《危险品规则》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《关于危险货物运输的建议书 规章范本》

《International Maritime Dangerous Goods Code》

《国际海运危险货物规则》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险品安全运输技术指令》

16. Other Information
其他信息

This file is only effective to the batteries (YJ801535) provided by commissioner (YJ POWER GROUP LIMITED) which manufactured by YJ POWER GROUP LIMITED. The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. Shenzhen NTEK New Energy Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries.

本文件仅对由委托方（广东言九电子股份有限公司）提供的，并由广东言九电子股份有限公司生产的电池（YJ801535）有效。该电池的成分信息由委托方提供并承诺其完整性和准确性。用户应仔细阅读此文件，并按照正确的方法使用电池，如因电池使用不当造成的损害或损失，深圳市北测新能源技术有限公司不承担任何责任。

--End of Material Safety Data Sheet 材料安全数据表结束--

Important Notice

注意事项

1. The test report is invalid without the Report Seal of NTEK and Paging seal of NTEK.

本报告书无本公司报告专用章、骑缝章无效。

2. Nobody is allowed to photocopy or partly photocopy this test report without written permission of NTEK.

未经本试验室书面同意，不得部分地复制本报告。

3. The test report is invalid without the signatures of Approver, Reviewer and Preparer.

本报告书无批准人、审核人及编制人签名无效。

4. The report is invalid when anything of following happens – illegal transfer, reproduce, embezzlement, imposture, modification or tampering in any media form.

私自转让、复制、盗用、冒用、涂改、或以任何媒体形式篡改的报告书无效。

5. Objections to the test report must be submitted to NTEK within 15 days.

对报告书若有异议，应于收到报告之日起15天内向本公司提出。

6. The Chinese contents in this report are only for reference.

本报告中的中文内容仅供参考。

Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

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Tel 电话：400-809-9068 E-mail 邮箱：Quality@ntekbat.org.cn

Website 网址：http://www.ntekbat.org.cn

Material Safety Data Sheet

材料安全数据表

Name of Goods: Rechargeable Li-ion Cell

物品名称: 可充式锂离子电池

Model and Spec.:

1040W1, 3.85V 35mAh 0.135Wh

型号规格:

Applicant: Chongqing VDL Electronics Co., Ltd.

委托单位: 重庆市紫建电子股份有限公司

Effective date:

2024-07-25

生效日期:

Date of issue:

2024-07-25

签发日期:

Shenzhen NTEK New Energy Technology Co., Ltd.

深圳市北测新能源技术有限公司

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 化学品及企业标识	
Name of Products 产品名称	Rechargeable Li-ion Cell 可充式锂离子电池
Model/Type 型号	1040W1
Ratings 额定参数	3.85V 35mAh 0.135Wh
Applicant 委托单位	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of Applicant 委托单位地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
Manufacturer 生产厂商	Chongqing VDL Electronics Co., Ltd. 重庆市紫建电子股份有限公司
Address of manufacturer 生产厂商地址	Building 1-4, Puli Industrial New Area, Zhaojia Street, Kaizhou District, Chongqing, China 重庆市开州区赵家街道浦里工业新区1-4号楼
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Prepared by 编制人	Jake Chen 陈嘉南
Reviewed by 审核人	Snow Liu 刘雪娟
Approved by 批准人	Jesse Zhang 张士杰



2. Hazards Identification

危险性概述

Dangerous classification 物品危险分类	
Explosive risk 爆炸危险性	This article does not belong to the explosion dangerous goods 该物品不属于爆炸危险品
Flammable risk 易燃危险性	This article does not belong to the flammable material 该物品不属于易燃危险品
Oxidation risk 氧化危险性	This article does not belong to the oxidation of dangerous goods 该物品不属于氧化危险品
Toxic risk 毒害危险性	This article does not belong to the toxic dangerous goods 该物品不属于毒害危险品
Radioactive risk 放射危险性	This article does not belong to the radiation of dangerous goods 该物品不属于放射危险品
Mordant risk 腐蚀危险性	This article does not belong to the corrosion of dangerous goods 该物品不属于腐蚀危险品
Other risk 其他危险性	Lithium-ion batteries, The Watt-hour rating of the battery is 0.135Wh 锂离子电池, 该电池额定瓦时为0.135Wh

3. COMPOSITION INFORMATION

成分/组成信息

Chemical Composition 化学成分	CAS No. CAS号	Weight (%) 重量百分比
Cobalt Lithium Oxide 钴酸锂	12190-79-3	30-40
Graphite 石墨	7782-42-5	15-20
Electrolyte 电解液	Lithium hexafluorophosphate 六氟磷酸锂	15-20
	Ethylene carbonate 碳酸乙烯酯	
	Ethyl methyl carbonate 碳酸甲乙酯	
	Diethyl carbonate 碳酸二乙酯	
PVDF 聚偏氟乙烯	24937-79-9	0-1
CMC 羧甲基纤维素钠	9004-32-4	0-1
Iron 铁	7439-89-6	10-20
Aluminum 铝	7429-90-5	0-5

Copper 铜	7440-50-8	0-5
Nickel 镍	7440-02-0	0-5
Other 其它	/	0-5

4. First aid measures 急救措施

Once battery shell rupture, content contact with the human body will produce harm, once contact, should take the following emergency measures:

电池外壳破裂，内容物接触人体会产生危害，一旦发生接触，应采取以下应急措施：

Eye:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

眼睛:

万一接触，立即用大量的清水冲洗至少15分钟，翻起上下眼睑，直到化学的残留物消失为止，迅速就医。

Skin:

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

皮肤:

万一接触，用大量水冲洗至少15分钟，同时除去污染的衣物和鞋子，迅速就医。

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

吸入:

立即从暴露处移至空气清新处，如果呼吸困难给予输氧，立即就医。

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician

食入:

饮用两杯牛奶或水。如果当事人仍然清晰可以采取催吐的方法，并且立即就医。

5. Fire-fighting measures 消防措施

Flash Point: N/A.

燃点: 不适用

Auto-Ignition Temperature: N/A.

自燃温度: 不适用

Extinguishing Media: Water, CO₂.

灭火介质: 大量水（降温），二氧化碳

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

特殊灭火程序: 自给式呼吸器

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

异常火灾或爆炸: 当电芯暴露于过热的环境中时，安全阀可能会打开。

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

燃烧产生的危险物品: 一氧化碳，二氧化碳，锂氧化物烟气。

6. Accidental release measures

泄露应急处理

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

为防止电池材料泄露或释放采取的措施

如果电池内部材料泄露，试验人员应立即撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区，清除溢出的液体，将泄露电池放进塑料袋中，然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

废弃物处置方法

建议将电池完全放电，消耗电池内部的锂金属，并且深埋于土壤中。

7. Handling and storage

操作处置和储存

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

操作处置和储存中的防范措施

禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风等温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

其他要注意的防范措施

拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。禁止短接或将电池正负极错误的安装在设备中。

8. Exposure controls/personal protection

接触控制/个人防护

Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

呼吸防护: 当电池排气阀打开时, 应尽量使通风设备开至最大, 避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下, 呼吸保护是不必要的。

Ventilation: Not necessary under conditions of normal use.

通风条件: 正常使用条件下不需要。

Protective Gloves: Not necessary under conditions of normal use.

防护手套: 正常使用条件下不需要。

Other Protective Clothing or Equipment: Not necessary under conditions of normal use.

其他防护服装或设备: 正常使用条件下不需要。

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

电池开阀试验时应做好个人防护: 呼吸防护, 防护手套, 防护服装和有护边的安全玻璃罩都是要准备的。

9. Physical and chemical properties

物理和化学特性

Appearance: Button

外形: 扣式

Odors: If leaking, smells of medical ether.

气味: 泄漏时, 有醚的气味。

PH: Not applicable as supplied.

酸碱度: 不适用

Flash Point: Not applicable unless individual components exposed.

燃点: 除单个电芯暴露试验外其他不适用。

Flammability: Not applicable unless individual components exposed.

可燃性: 除单个电芯暴露试验外其他不适用。

Relative density: Not applicable unless individual components exposed.

相对密度: 除单个电芯暴露试验外其他不适用。

Solubility (water): Not applicable unless individual components exposed.

溶解性 (水溶性): 除单个电芯暴露试验外其他不适用。

Solubility (other): Not applicable unless individual components exposed.

溶解性 (其他): 除单个电芯暴露试验外其他不适用。

10. Stability and reactivity 稳定性和反应活性

Stability: Product is stable under conditions described in Section 7.

稳定性: 产品在第 7 节所述的条件下稳定。

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

应避免的条件: 加热 70°C 以上或焚烧。变形。毁坏。粉碎。拆卸。过充电。短路。长时间暴露在潮湿的条件下。

Materials to avoid: Oxidising agents, alkalis, water.

应避免的材料: 氧化剂, 碱, 水。

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

危险分解物: 有毒烟雾, 并可能形成过氧化物。

Hazardous Polymerization: N/A.

聚合危害: 不适用

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

如果发生泄露, 避免与强氧化剂, 无机酸, 强碱, 卤代烃接触。

11. Toxicological information 毒理学资料

Signs & symptoms: None, unless battery ruptures.

标志及症状: 无, 除非电池破裂。

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。

Inhalation: Lung irritant.

吸入: 对肺有刺激性。

Skin contact: Skin irritant.

皮肤接触: 对皮肤刺激性。

Eye contact: Eye irritant.

眼睛接触: 对眼睛有刺激性。

Ingestion: Poisoning if swallowed.

食入: 吞下中毒。

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

下列情况下健康状况会恶化: 万一发生与电池内部材料接触的事故, 轻微或严重的刺激, 都可能使皮肤出现干燥和灼烧的感觉, 并且损坏靶器官(肝脏, 肾脏)的神经。

12. Ecological information 生态学资料		
Mammalian effects: None known at present. 对哺乳动物的影响: 目前未知。 Eco-toxicity: None known at present. 生态毒性: 目前未知。 Bioaccumulation potential: Slowly Bio-degradable. 生物体内积累: 慢慢地生物降解。 Environmental fate: None known environmental hazards at present. 环境危害: 目前没有已知的环境危害。		
13. Disposal consideration 废弃处置		
Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations. 不要焚烧, 或使电池温度超过 70°C, 这种滥用可导致泄漏和/或电池爆炸。按照相应的地方性法规处理。		
14. Transport information 运输信息		
UN No. and Shipping name: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment UN编号及运输专有名称: UN 3480 Lithium ion batteries UN 3481 Lithium ion batteries packed with equipment UN 3481 Lithium ion batteries contained in equipment Label for conveyance: Lithium Battery Mark, class 9 lithium battery hazard label (Only for UN3480), Cargo Aircraft Only Label (Only for UN3480) 运输标签: 锂电池标记, 第 9 类锂电池危险品标签 (只适用UN3480), 仅限货机标签 (只适用UN3480) Packaging Group/包装等级: N/A/不适用 EmS No./EmS 编号: F-A, S-I Marine pollutants/海洋污染物: No/否		
ICAO/IATA	Shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions PI 965 IB, PI 966 II, PI 967 II 根据国际民用航空组织(ICAO), TI或者国际航空协会(IATA), DGR包装说明PI 965 IB, PI 966 II, PI 967 II相关规定进行空运	DGR 65 th (2024) ICAO (2023-2024 edition)
IMDG CODE	Shipped by sea in accordance with International Maritime Dangerous Code (IMDG CODE) Special Provision 188 根据《国际海运危险货物规则》(IMDG CODE)特殊规定188条款相关规定运输	IMDG CODE (Amdt. 41-22)

15. Regulation information 法规信息

Law information 法律信息

《Dangerous Goods Regulations》

《危险品规则》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《关于危险货物运输的建议书 规章范本》

《International Maritime Dangerous Goods Code》

《国际海运危险货物规则》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险品安全运输技术指令》

16. Other Information 其他信息

This file is only effective to the batteries (1040W1) provided by commissioner (Chongqing VDL Electronics Co., Ltd.) which manufactured by Chongqing VDL Electronics Co., Ltd. The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. Shenzhen NTEK New Energy Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries.

本文件仅对由委托方（重庆市紫建电子股份有限公司）提供的，并由重庆市紫建电子股份有限公司生产的电池（1040W1）有效。该电池的成分信息由委托方提供并承诺其完整性和准确性。用户应仔细阅读此文件，并按照正确的方法使用电池，如因电池使用不当造成的损害或损失，深圳市北测新能源技术有限公司不承担任何责任。

--End of Material Safety Data Sheet 材料安全数据表结束--

Important Notice

注意事项

1. The test report is invalid without the Report Seal of NTEK and Paging seal of NTEK.

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未经本试验室书面同意，不得部分地复制本报告。

3. The test report is invalid without the signatures of Approver, Reviewer and Preparer.

本报告书无批准人、审核人及编制人签名无效。

4. The report is invalid when anything of following happens – illegal transfer, reproduce, embezzlement, imposture, modification or tampering in any media form.

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5. Objections to the test report must be submitted to NTEK within 15 days.

对报告书若有异议，应于收到报告之日起15天内向本公司提出。

6. The Chinese contents in this report are only for reference.

本报告中的中文内容仅供参考。

Shenzhen NTEK New Energy Technology Co., Ltd.

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Website 网址：http://www.ntekbat.org.cn

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EORI+DE7024460

B/L No.
VER284548



SACO SHIPPING LINE LTD

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44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

6/06/HAM/162946

Copy

Consigned to order of
LOGWIN AIR+OCEAN MEXICO SA DE CV
RFC:LAS070725BM6
AV. COYOACAN 1622,TORRE 3, NIVEL 2,
OFICINA 201, COLONIA DEL VALLE, DEL.
BENITO JUAREZ,
CIUDAD DE MEXICO CMX 03100 MEXICO
RFC+LAS070725BM6

Notify Party and address
LOGWIN AIR + OCEAN MEXICO SA DE CV
AV. COYOACAN 1622,TORRE 3, NIVEL 2,
OFICINA 201, COLONIA DEL VALLE, DEL.
BENITO JUAREZ,
CIUDAD DE MEXICO CMX 03100 MEXICO
+525515602680

		Place of receipt HAMBURG, GERMANY CFS	
Ocean vessel MAERSK MONTE OLIVIA 623S		Port of loading HAMBURG, GERMANY	
Port of discharge VERACRUZ, MEXICO	Place of delivery VERACRUZ, MEXICO CFS		Freight payable HAMBURG
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. 2401165747	Quantity of Goods 12 PALLETS	Description of Goods SOUND EQUIPMENT **HSCODE: 851830**	Said to contain Gross weight, kg. 3055,000 Measurement, m ³ 23,895
STOWED INTO CONTAINER NO.: HJMU1537764		SEAL : B143251	

TOTAL **12 PALLETS** **3055,000 KGS** **23,895 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA,C.P. 06700 MEXICO D.F.
TEL:005255146915,FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 07.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay