

**Safety Data Sheet (SDS) Report**

Applicant: TAIZHOU ZHONGLIAN ELECTRICAL CO.,LTD  
No.568, Jingyi Road, Jiaojiang Economic Zone, Taizhou, China.

**SDS number: P2019100806**

Issue Date: 2019-10-12

## Sample Description:

The sample information was submitted and identified on client's behalf to be:

Product Name : Rechargeable Li-ion Battery Pack  
Physical State : Solid  
Data Received : Oct 08, 2019  
Data Reviewed : Oct 12, 2019

## Service Requested:

Based on the information provided by the applicant, the Safety Data Sheet (SDS) was generated in accordance with requirements of OSHA HazCom Standard (2012), for details please refer to attached pages.

## Authorized By:

On Behalf Of Regulatory Affairs in Intertek Testing Services Ltd., Shanghai



Anna Wang  
Regulatory Consultant

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# Safety Data Sheet

## Rechargeable Li-ion Battery Pack

TAIZHOU ZHONGLIAN ELECTRICAL CO.,LTD

SDS number: P2019100806

Version No:1.0

According to OSHA HazCom Standard (2012) requirements

Issue Date:12/10/2019

GHS.U.S.A.EN

### SECTION 1 IDENTIFICATION

#### Product Identifier

Product name	Rechargeable Li-ion Battery Pack
Proper shipping name	Lithium ion batteries including lithium ion polymer batteries
Other means of identification	Model : VICTg1S2PNC2600M2601

#### Recommended use of the chemical and restrictions on use

Relevant identified uses	Air Cooling
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#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Supplier name	TAIZHOU ZHONGLIAN ELECTRICAL CO.,LTD
Address	No.568, Jingyi Road, Jiaojiang Economic Zone, Taizhou, China.
Telephone	+86-576-89088233
Emergency telephone	+86-576-89088233
Email	sales@zolee.cn
Importer name	KLEIN TOOLS, INC
Address	450 Bond St,Lincolnshire, IL, 60069, United States
Telephone	+1-847-821-3305
Email	RGoldmann@kleintools.com

#### Emergency phone number

Association / Organisation	KLEIN TOOLS, INC
Emergency telephone numbers	+1-847-821-3305(9:00-17:00)

### SECTION 2 HAZARD(S) IDENTIFICATION

#### Classification of the substance or mixture

Not considered a Hazardous Substance by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Classified as Dangerous Goods for transport purposes.

Classification	Not Applicable
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#### Label elements

Hazard pictogram(s)	Not Applicable
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SIGNAL WORD	NOT APPLICABLE
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#### Hazard statement(s)

Not Applicable

#### Hazard(s) not otherwise classified

Not Applicable

#### Supplementary statement(s)

Not Applicable

#### Precautionary statement(s) General

Not Applicable

#### Precautionary statement(s) Prevention

Not Applicable

#### Precautionary statement(s) Response

Not Applicable

#### Precautionary statement(s) Storage

Not Applicable

Continued...

## Rechargeable Li-ion Battery Pack

### Precautionary statement(s) Disposal

Not Applicable

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### Substances

See section below for composition of Mixtures

#### Mixtures

CAS No	%[weight]	Name
-	100	<u>Lithium ion batteries</u>

### SECTION 4 FIRST-AID MEASURES

#### Description of first aid measures

<b>Eye Contact</b>	▶ Generally not applicable.
<b>Skin Contact</b>	▶ Generally not applicable.
<b>Inhalation</b>	▶ Generally not applicable.
<b>Ingestion</b>	▶ Generally not applicable.

#### Most important symptoms and effects, both acute and delayed

See Section 11

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5 FIRE-FIGHTING MEASURES

#### Extinguishing media

- ▶ Sand, dry powder extinguishers or other inerts should be used to smother dust fires.

#### Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	<ul style="list-style-type: none"> <li>▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</li> <li>▶ <b>NOTE:</b> May develop pressure in containers; open carefully. Vent periodically.</li> </ul>
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#### Special protective equipment and precautions for fire-fighters

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> </ul> Slight hazard when exposed to heat, flame and oxidisers.
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> </ul> Combustion products include: carbon monoxide (CO) carbon dioxide (CO <sub>2</sub> ) other pyrolysis products typical of burning organic material.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

See section 8

#### Environmental precautions

See section 12

#### Methods and material for containment and cleaning up

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Secure load if safe to do so.</li> </ul>
<b>Major Spills</b>	<ul style="list-style-type: none"> <li>▶ Clear area of personnel.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Wear protective clothing, safety glasses, dust mask, gloves.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

Continued...

## Rechargeable Li-ion Battery Pack

### SECTION 7 HANDLING AND STORAGE

#### Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▶ Limit all unnecessary personal contact.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store away from incompatible materials.</li> </ul>

#### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	PE bag + carton
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>▶ <b>WARNING:</b> Avoid or control reaction with peroxides.</li> <li>▶ Keep dry</li> <li>▶ <b>NOTE:</b> May develop pressure in containers; open carefully. Vent periodically.</li> </ul>

### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Control parameters

##### OCCUPATIONAL EXPOSURE LIMITS (OEL)

Not Available


##### INGREDIENT DATA

##### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Rechargeable Li-ion Battery Pack	Not Available	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
Rechargeable Li-ion Battery Pack	Not Available	Not Available

#### Exposure controls

<b>Appropriate engineering controls</b>	Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use. Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment.
<b>Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> </ul> <p>No special equipment required due to the physical form of the product.</p>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p>No special equipment required due to the physical form of the product.</p>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C.</li> </ul>

#### Respiratory protection

Respiratory protection not normally required due to the physical form of the product.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<b>Appearance</b>	Solid		
<b>Physical state</b>	Solid	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Available	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available

Continued...

## Rechargeable Li-ion Battery Pack

Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Flammable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Insoluble	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

### SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is considered stable.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

### SECTION 11 TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

Acute Toxicity	Based on available data, the classification criteria are not met.
Skin Irritation/Corrosion	Based on available data, the classification criteria are not met.
Serious Eye Damage/Irritation	Based on available data, the classification criteria are not met.
Respiratory or Skin sensitisation	Based on available data, the classification criteria are not met.
Mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductivity	Based on available data, the classification criteria are not met.
STOT - Single Exposure	Based on available data, the classification criteria are not met.
STOT - Repeated Exposure	Based on available data, the classification criteria are not met.
Aspiration Hazard	Based on available data, the classification criteria are not met.

### SECTION 12 ECOLOGICAL INFORMATION

#### Toxicity

Rechargeable Li-ion Battery Pack	Based on available data, the classification criteria are not met.
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**DO NOT** discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

#### Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

#### Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

### SECTION 13 DISPOSAL CONSIDERATIONS

## Rechargeable Li-ion Battery Pack

### Waste treatment methods

<b>Product / Packaging disposal</b>	<ul style="list-style-type: none"> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Management Authority for disposal.</li> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> </ul>
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### SECTION 14 TRANSPORT INFORMATION

<b>Marine Pollutant</b>	NO
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#### Land transport (DOT)

<b>UN number</b>	3480				
<b>UN proper shipping name</b>	Lithium ion batteries including lithium ion polymer batteries				
<b>Transport hazard class(es)</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Class</td> <td style="width: 10%;">9</td> </tr> <tr> <td>Subrisk</td> <td>Not Applicable</td> </tr> </table>	Class	9	Subrisk	Not Applicable
Class	9				
Subrisk	Not Applicable				
<b>Packing group</b>	Not Applicable				
<b>Environmental hazard</b>	Not Applicable				
<b>Special precautions for user</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Hazard Label</td> <td style="width: 10%;">9</td> </tr> <tr> <td>Special provisions</td> <td>422, A54, A100</td> </tr> </table>	Hazard Label	9	Special provisions	422, A54, A100
Hazard Label	9				
Special provisions	422, A54, A100				

#### Air transport (ICAO-IATA / DGR)

<b>UN number</b>	3480														
<b>UN proper shipping name</b>	Lithium ion batteries (including lithium ion polymer batteries)														
<b>Transport hazard class(es)</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">ICAO/IATA Class</td> <td style="width: 10%;">9</td> </tr> <tr> <td>ICAO / IATA Subrisk</td> <td>Not Applicable</td> </tr> <tr> <td>ERG Code</td> <td>9F</td> </tr> </table>	ICAO/IATA Class	9	ICAO / IATA Subrisk	Not Applicable	ERG Code	9F								
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<b>Packing group</b>	Not Applicable														
<b>Environmental hazard</b>	Not Applicable														
<b>Special precautions for user</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Special provisions</td> <td style="width: 50%;">A88 A99 A154 A164 A183 A201 A206 A213 A331 A334 A802</td> </tr> <tr> <td>Cargo Only Packing Instructions</td> <td>See 965</td> </tr> <tr> <td>Cargo Only Maximum Qty / Pack</td> <td>See 965</td> </tr> <tr> <td>Passenger and Cargo Packing Instructions</td> <td>Forbidden</td> </tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td> <td>Forbidden</td> </tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td> <td>Forbidden</td> </tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td> <td>Forbidden</td> </tr> </table>	Special provisions	A88 A99 A154 A164 A183 A201 A206 A213 A331 A334 A802	Cargo Only Packing Instructions	See 965	Cargo Only Maximum Qty / Pack	See 965	Passenger and Cargo Packing Instructions	Forbidden	Passenger and Cargo Maximum Qty / Pack	Forbidden	Passenger and Cargo Limited Quantity Packing Instructions	Forbidden	Passenger and Cargo Limited Maximum Qty / Pack	Forbidden
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Cargo Only Packing Instructions	See 965														
Cargo Only Maximum Qty / Pack	See 965														
Passenger and Cargo Packing Instructions	Forbidden														
Passenger and Cargo Maximum Qty / Pack	Forbidden														
Passenger and Cargo Limited Quantity Packing Instructions	Forbidden														
Passenger and Cargo Limited Maximum Qty / Pack	Forbidden														

#### Sea transport (IMDG-Code / GGVSee)

<b>UN number</b>	3480						
<b>UN proper shipping name</b>	LITHIUM ION BATTERIES (including lithium ion polymer batteries)						
<b>Transport hazard class(es)</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">IMDG Class</td> <td style="width: 10%;">9</td> </tr> <tr> <td>IMDG Subrisk</td> <td>Not Applicable</td> </tr> </table>	IMDG Class	9	IMDG Subrisk	Not Applicable		
IMDG Class	9						
IMDG Subrisk	Not Applicable						
<b>Packing group</b>	Not Applicable						
<b>Environmental hazard</b>	Not Applicable						
<b>Special precautions for user</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">EMS Number</td> <td style="width: 10%;">F-A , S-I</td> </tr> <tr> <td>Special provisions</td> <td>188 230 310 348 376 377 384 387</td> </tr> <tr> <td>Limited Quantities</td> <td>0</td> </tr> </table>	EMS Number	F-A , S-I	Special provisions	188 230 310 348 376 377 384 387	Limited Quantities	0
EMS Number	F-A , S-I						
Special provisions	188 230 310 348 376 377 384 387						
Limited Quantities	0						

The article is not subject to other provisions of IMO IMDG Code according to special provision 188

#### Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

### SECTION 15 REGULATORY INFORMATION

#### Safety, health and environmental regulations / legislation specific for the substance or mixture

Continued...

## Rechargeable Li-ion Battery Pack

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
US - Alaska Limits for Air Contaminants	US Chemical Footprint Project - Chemicals of High Concern List
US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELEs)	US Clean Air Act - Hazardous Air Pollutants
US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELEs)	US CWA (Clean Water Act) - Priority Pollutants
US - California Permissible Exposure Limits for Chemical Contaminants	US CWA (Clean Water Act) - Toxic Pollutants
US - California Proposition 65 - Carcinogens	US EPCRA Section 313 Chemical List
US - Hawaii Air Contaminant Limits	US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens
US - Idaho - Limits for Air Contaminants	US National Toxicology Program (NTP) 14th Report Part B. Reasonably Anticipated to be a Human Carcinogen
US - Idaho Toxic Air Pollutants Non- Carcinogenic Increments - Occupational Exposure Limits	US OSHA Permissible Exposure Levels (PELs) - Table Z1
US - Michigan Exposure Limits for Air Contaminants	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Minnesota Permissible Exposure Limits (PELs)	US TSCA Chemical Substance Inventory - Interim List of Active Substances
US - Oregon Permissible Exposure Limits (Z-1)	US TSCA New Chemical Exposure Limits (NCEL)
US - Rhode Island Hazardous Substance List	US TSCA Section 12(b) - List of Chemical Substances Subject to Export Notification Requirements
US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	US TSCA Section 5(a)(2) - Significant New Use Rules (SNURs)
US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants	
US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants	
US - Washington Permissible exposure limits of air contaminants	
US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values	

### Federal Regulations

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES	
Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

#### US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

None Reported

### State Regulations

#### US. CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

#### US - CALIFORNIA PROPOSITION 65 - CARCINOGENS: LISTED SUBSTANCE

Nickel compounds Listed

### SECTION 16 OTHER INFORMATION

#### Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

**Rechargeable Li-ion Battery Pack****Definitions and abbreviations**

PC—TWA: Permissible Concentration-Time Weighted Average  
PC—STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit.  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index