

Material Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision Date: 01/MAY/2022

Version: 1.8

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

# 1.1. Product Identifier

Product Name: Rechargeable Lithium Ion Battery Pack

### **Product Numbers:**

B301118 Rated 3.6V 10.8Wh max.

B306138 B306238 B308138 B308238 Rated 10.8V 32.4Wh max.

B306148 B306248 B308148 B308248 Rated 14.4V 43.2Wh max.

B306158 B306258 B308158 B308258 Rated 18V 54Wh max.

B307138 B307238 B309138 B309238 Rated 10.8V 64.8Wh max.

B307148 B307248 B309148 B309248 Rated 14.4V 86.4Wh max.

B307158 B307258 B309158 B309258 Rated 18V 108Wh max.

B3141A8 B3151A8 B0810N03A B0810N02F Rated 36V 216Wh max

# **1.2.** Intended Use of the Product

Use of the Substance/Mixture: Lithium-Ion battery pack

# **1.3.** Name, Address, and Telephone of the Responsible Party

**Company** Techway Industrial Co., Ltd. No.32, 21<sup>st</sup> Road, Taichung Industrial Park, Taichung, Taiwan, R.O.C.

# 1.4. Emergency Telephone Number

Emergency Number: 886-4-23509298 CHEMTREC

# SECTION 2: HAZARDS IDENTIFICATION

# 2.1. Classification of the Substance or Mixture

# \*Classification (GHS-US)

Within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]: this mixture is not considered a hazard when used in a manner which is consistent with the labeled directions. See section 2.3 for information for hazards related to the ingredients encased within this product.

# 2.2. Label Elements

# **GHS-US Labeling**

No labeling applicable this product is considered an article under the OSHA Hazard communication Standard [29 CFR 1910.1200]. See section 2.3 for hazards related to the ingredients encased within this product.

# \*2.3. Other Hazards

Other hazards not contributing to the classification (These represent the hazards associated with the materials encased within the product that are not available under normal conditions of use)

May form combustible dust concentrations in air

- H301 Toxic if swallowed
- H314 Causes severe skin burns and eye damage
- , H317 - May cause an allergic skin reaction
- H318 Causes serious eye damage
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H350 May cause cancer
- H372 Causes damage to organs through prolonged or repeated exposure
- H400 Very toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects

Within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]: this mixture is not considered a hazard when used in a manner which is consistent with the labeled directions. This mixture is considered an article in its final form. This MSDS covers the hazards and information of the materials contained within the article, in the event the product is damaged or mishandled. Under normal conditions of use these chemicals are not anticipated to be available for exposure. Substances within this product may be reactive with water, air, and are flammable if released. Thermal decomposition of this product may generate corrosive, and toxic vapors. In particular Hydrofluoric acid may be released in the case of open cells. Hydrofluoric acid can cause severe chemical burns, is toxic by all routes of exposure, and is very reactive. Avoid extremely high or low temperatures, keep away from incompatible materials. Do not open, puncture, damage, or incinerate container.

# 2.4. <u>Unknown Acute Toxicity (GHS-US)</u>:

# No data available

# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

# 3.1. Substances

Not applicable

B0202N04A Rated 7.2V 21.6Wh max. B303138 B304138 B305138 Rated 10.8V 32.4Wh max. B304148 B304248 Rated 14.4V 43.2Wh max. B304158 B304258 Rated 18V 54Wh max. B313138 B314138 Rated 10.8V 64.8Wh max. B313148 B314148 Rated 14.4V 86.4Wh max.

# B313158 B314158 B316158 Rated 18V 108Wh max.



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Name	Product Identifier	%	Classification (GHS-US)
Manganese dioxide	(CAS No) 1313-13-9	< 30	Acute Tox. 4 (Oral), H302
			Acute Tox. 4 (Inhalation), H332
			STOT RE 2, H373
			Aquatic Chronic 2, H411
Carbon	(CAS No) 7440-44-0	< 30	Comb. Dust
			Acute Tox. Not classified (Oral)
Nickel oxide	(CAS No) 1313-99-1	< 30	Skin Sens. 1, H317
			Carc. 1A, H350
			STOT RE 1, H372
			Aquatic Chronic 4, H413
Cobalt(II) oxide	(CAS No) 1307-96-6	< 30	Acute Tox. 3 (Oral), H301
			Resp. Sens. 1B, H334
			Skin Sens. 1, H317
			Carc. 2, H351
			Aquatic Acute 1, H400
			Aquatic Chronic 1, H410
Aluminum Foil	(CAS No) 7429-90-5	2 - 10	Not classified
1,1-Difluoroethylene polymer	(CAS No) 24937-79-9	< 10	Not classified
Copper	(CAS No) 7440-50-8	2 - 10	Not classified
Aluminum and inert materials	Not available	5 - 10	Not classified
Electrolyte	See composition below***	<20	See hazards below***

#### \*\*\*Electrolyte Components

Name	Product Identifier	Classification (GHS-US)	
Phosphate(1-), hexafluoro-, lithium	(CAS No) 21324-40-3	Acute Tox. 3 (Oral), H301	
		Skin Corr. 1A, H314	
		Eye Dam. 1, H318	
		STOT RE 1, H372	
Dimethyl carbonate	(CAS No) 616-38-6	Flam. Liq. 2, H225	
Carbonate, methyl ethyl	(CAS No) 623-53-0	Flam. Liq. 2, H225	
Ethylene carbonate	(CAS No) 96-49-1	Eye Irrit. 2A, H319	

\*\*These composition tables represent the hazards associated with the individual ingredients within this product. The product itself is not hazardous under normal conditions of use.

Mercury content:	Hg <0.1mg/kg	
Cadmium content:	Cd <1mg/kg	
Lead content:	Pb < 10mg/kg	
Full text of H-phrases: see section 16		

# SECTION 4: FIRST AID MEASURES

# 4.1. Description of First Aid Measures

**First-aid Measures General**: The following first aid measures apply in case of exposure to the interior battery components, if the battery is damaged and exposure occurs. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation**: When symptoms occur: go into open air and ventilate suspected area. Immediately call a POISON CENTER or doctor/physician.

**First-aid Measures After Skin Contact**: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.

**First-aid Measures After Eye Contact**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**First-aid Measures After Ingestion**: Rinse mouth. Obtain emergency medical attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

**Symptoms/Injuries:** Not hazardous according to OSHA 29 CFR 1910.1200 and is considered an article. Under normal conditions of use there are no physical or health hazards associated with this product. The following symptoms apply in the event an exposure occurs to the materials housed inside the product. Contact may cause immediate severe irritation progressing quickly to chemical burns. May cause cancer. Exposure may produce an allergic reaction. Causes damage to organs through prolonged or repeated exposure.

**Symptoms/Injuries After Inhalation:** Exposure to materials housed in battery cells: may cause allergy or asthma symptoms or breathing difficulties if inhaled. Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

Symptoms/Injuries After Skin Contact: Exposure to materials housed in battery cells: may cause an allergic skin reaction, may cause chemical burns.

Symptoms/Injuries After Eye Contact: Exposure to materials housed in battery cells: Causes serious eye damage.

# Symptoms/Injuries After Ingestion: Exposure to materials housed in battery cells: toxic if swallowed.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed to materials encased within the product get medical attention immediately.

# SECTION 5: FIREFIGHTING MEASURES

# 5.1. Extinguishing Media

Suitable Extinguishing Media: Metal fire extinction powder, dry powder, sand, water spray.

Unsuitable Extinguishing Media: Do not use a heavy water stream, use of a heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but will burn at high temperatures.

**Explosion Hazard:** If heated above 125°C (257°F) cells can explode.

**Reactivity:** Thermal decomposition generates: corrosive vapors, flammable gas, toxic gas, hydrofluoric acid. Product itself is stable, but if damaged or opened, can release hydrofluoric acid on contact with water which can cause severe chemical burns, is toxic by all routes of exposure, and is very reactive.

### 5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. **Other information:** Do not allow run-off from fire fighting to enter drains or water courses. Upon thermal decomposition and high temperatures may explode, or release toxic, corrosive, and flammable gases.

# SECTION 6: ACCIDENTAL RELEASE MEASURES

# 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures**: Product itself under normal conditions of use is not considered hazardous, for materials housed within product: avoid all eyes and skin contact and do not breathe vapor and mist. Do not allow product to spread into the environment.

# 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

# Emergency Procedures: Ventilate area.

#### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

# 6.3. Methods and Material for Containment and Cleaning Up

# For Containment: Stop leak without risks if possible.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. For product itself take up mechanically, for inner materials in the event of release from damage neutralize, and absorb material with inert material. Stop leak if possible to do so without risk. Do not allow to spread into the environment. Contact competent authority after a spill, and follow local/national regulations.

# 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

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# SECTION 7: HANDLING AND STORAGE

# 7.1. Precautions for Safe Handling

Additional Hazards When Processed: Do not open or damage enclosure, or battery cell as this could cause a potential exposure and release of hazardous materials. Under normal conditions of use this product is considered an article and exposure to the ingredients contained within this product is unlikely. Substances within this product may be reactive with water, air, and are flammable if released. Thermal decomposition of this product may generate corrosive, and toxic vapors. In particular hydrofluoric acid may be released in the case of open cells. Hydrofluoric acid can cause severe chemical burns, is toxic by all routes of exposure, and is very reactive. Avoid extremely high or low temperatures, keep away from incompatible materials. Do not expose to heat, or ignition sources as this could cause an explosion. If heated above 125°C (257°F) may explode. Do not puncture or incinerate container. Avoid short circuiting the cell.

**Precautions for Safe Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, vapors, spray from inner battery components.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do no eat, drink or smoke when using this product.

# 7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

**Storage Conditions:** Keep container tightly closed. Store in original container. Store in a dry, cool place. Store away from ignition sources, heat, and incompatible materials.

Incompatible Products: Strong acids, strong bases, strong oxidizers.

Storage Temperature: 20 °C (68°F); room temperature.

# 7.3. Specific End Use(s)

Lithium-Ion battery pack.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Con	trol Parameters		
Copper (7440-50-8)			
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>	
USA NIOSH	NIOSH REL (TWA) (mg/m3)	0.1 mg/m <sup>3</sup>	
USA IDLH	US IDLH (mg/m3)	100 mg/m <sup>3</sup>	
USA OSHA	OSHA PEL (TWA) (mg/m3)	1 mg/m <sup>3</sup>	
Aluminum (7429-90-5)			
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>	
USA NIOSH	NIOSH REL (TWA) (mg/m3)	5 mg/m <sup>3</sup>	
USA OSHA	OSHA PEL (TWA) (mg/m3)	5 mg/m <sup>3</sup>	

# 8.2. Exposure Controls

Appropriate Engineering Controls Personal Protective Equipment

- : Ensure all national/local regulations are observed.
- : Not required under normal conditions of use, when handling damaged batteries: . Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing

Hand Protection

**Eye Protection** 

**Skin and Body Protection** 

**Respiratory Protection** 

- : Not required under normal conditions of use, when handling damaged batteries: Chemically resistant materials and fabrics. Corrosionproof clothing.
- : Not required under normal conditions of use, when handling damaged batteries: Wear chemically resistant protective gloves.
- : Not required under normal conditions of use, when handling damaged batteries: Chemical goggles or safety glasses.
- : Not required under normal conditions of use, when handling damaged batteries: .Wear suitable protective clothing.
- : Not required under normal conditions of use, when handling damaged batteries: Use a NIOSH-approved self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

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Other Information	: When using, do not eat, drink or smoke.
SECTION 9: PHYSICAL AND CHI	EMICAL PROPERTIES
9.1. Information on Basic Physical a	
Physical State	: Solid
Appearance	: Manufactured Battery Cell.
Odor	: Odorless.
Odor Threshold	: No data available
рН	: No data available
Relative Evaporation Rate (butylacetate=1	) : No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Specific Gravity	: Not available
Solubility	: Insoluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, Kinematic	: No data available
Viscosity, Dynamic	: No data available
Explosive Properties	: No data available
Oxidizing Properties	: No data available
Explosive Limits	: Not applicable
9.2. Other Information No additiona	l information available

# SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:** Thermal decomposition generates: corrosive vapors, flammable gas, toxic gas, hydrofluoric acid. Product itself is stable, but if damaged or opened, can release hydrofluoric acid on contact with water which can cause severe chemical burns, is toxic by all routes of exposure, and is very reactive.

10.2 Chemical Stability: Stable under normal conditions.

10.3 Possibility of Hazardous Reactions: Hazardous reactions will not occur under normal conditions.

**10.4** Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials. Damaging, puncturing, or opening the battery cell.

10.5 Incompatible Materials: Strong acids, strong bases, strong oxidizers, water, seawater, moisture.

**10.6 Hazardous Decomposition Products:** Thermal decomposition generates: carbon oxides (CO, CO2), corrosive vapors, toxic vapors. Can also release hydrofluoric acid on contact with water which can cause severe chemical burns, is toxic by all routes of exposure, and is very reactive.

# SECTION 11: TOXICOLOGICAL INFORMATION

# 11.1. Information On Toxicological Effects

This product is considered an article under the OSHA Hazard communication Standard [29 CFR 1910.1200]. The information below reflects the hazards of the individual ingredients within the product, which if damaged may be released. **Acute Toxicity** : Not classified

Manganese dioxide (1313-13-9)		
LD50 Oral Rat	9000 mg/kg	
Dimethyl carbonate (616-38-6)		
LD50 Oral Rat	13000 mg/kg	
LD50 Dermal Rabbit	> 5 g/kg	
LC50 Inhalation Rat (mg/l)	140 mg/l/4h	
Carbon (7440-44-0)		
LD50 Oral Rat	> 10000 mg/kg	

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Nickel avide (1212.00.1)				
Nickel oxide (1313-99-1) LD50 Oral Rat	> 5000 mg/kg			
	> 5000 mg/kg			
Skin Corrosion/Irritation: Not classified				
	Serious Eye Damage/Irritation: Not classified			
Germ Cell Mutagenicity: Not classified	Respiratory or Skin Sensitization: Not classified			
Carcinogenicity: Not classified				
Nickel oxide (1313-99-1)				
IARC group	1			
National Toxicity Program (NTP) Status	1			
Cobalt(II) oxide (1307-96-6)				
IARC group	2B			
Reproductive Toxicity: Not classified				
Specific Target Organ Toxicity (Single Expo	osure): Not classified			
Specific Target Organ Toxicity (Repeated B				
Aspiration Hazard: Not classified				
•	osure to materials housed in battery cells: may cause allergy or asthma symptoms or			
	may cause immediate severe irritation progressing quickly to chemical burns.			
-	posure to materials housed in battery cells: may cause an allergic skin reaction, may			
cause chemical burns.				
	posure to materials housed in battery cells: Causes serious eye damage.			
Symptoms/Injuries After Ingestion: Expos	sure to materials housed in battery cells: toxic if swallowed.			
SECTION 12: ECOLOGICAL INF	ORMATION			
12.1. Toxicity				
Ecology - General	: The product itself is not considered hazardous and is considered and article			
	according to 29 CFR 1910.1200. The ecotoxicological information applies to the			
	materials encased within the product. Very toxic to aquatic life with long lasting			
	effects.			
Copper (7440-50-8)				
LC50 Fish 1	0.0068 (0.0068 - 0.0156) mg/l (Exposure time: 96 h - Species: Pimephales			
	promelas)			
EC50 Daphnia 1	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])			
EC50 Other Aquatic Organisms 1	0.0426 (0.0426 - 0.0535) mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [static])			
LC 50 Fish 2	0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])			
EC50 Other Aquatic Organisms 2	0.031 (0.031 - 0.054) mg/l (Exposure time: 96 h - Species: Pseudokirchneriella			
	subcapitata [static])			
Nickel oxide (1313-99-1)	1 1			
LC50 Fish 1	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])			
EC50 Daphnia 1	> 100 mg/l (Exposure time: 50 h) species: Drachyddino reno (statlej) > 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)			
EC50 Other Aquatic Organisms 1	> 127.3 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata)			
12.2. Persistence and Degradability				
Rechargeable Lithium Ion Battery Pack				
	May cause long-term adverse effects in the environment.			
Rechargeable Lithium Ion Battery Pack Persistence and Degradability	May cause long-term adverse effects in the environment.			
Rechargeable Lithium Ion Battery Pack	May cause long-term adverse effects in the environment.			
Rechargeable Lithium Ion Battery Pack Persistence and Degradability Copper (7440-50-8)				
Rechargeable Lithium Ion Battery Pack Persistence and Degradability Copper (7440-50-8) Persistence and Degradability				
Rechargeable Lithium Ion Battery PackPersistence and DegradabilityCopper (7440-50-8)Persistence and Degradability12.3. Bioaccumulative Potential				
Rechargeable Lithium Ion Battery PackPersistence and DegradabilityCopper (7440-50-8)Persistence and Degradability12.3. Bioaccumulative PotentialRechargeable Lithium Ion Battery PackBioaccumulative Potential	Not readily biodegradable.			
Rechargeable Lithium Ion Battery PackPersistence and DegradabilityCopper (7440-50-8)Persistence and Degradability12.3. Bioaccumulative PotentialRechargeable Lithium Ion Battery Pack	Not readily biodegradable.			
Rechargeable Lithium Ion Battery PackPersistence and DegradabilityCopper (7440-50-8)Persistence and Degradability12.3. Bioaccumulative PotentialRechargeable Lithium Ion Battery PackBioaccumulative PotentialManganese dioxide (1313-13-9)	Not readily biodegradable.			

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#### 12.4. Mobility in Soil No additional information available

#### 12.5. Other Adverse Effects

**Other Information** 

Avoid release to the environment.

# SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations. Do not puncture or incinerate container.

Ecology – Waste Materials: The materials contained within this product are hazardous to the environment, do not release into the environment.

# SECTION 14: TRANSPORT INFORMATION

# 14.1. U.S. DOT HAZARDOUS MATERIAL REGULATIONS (RE: GROUND TRANSPORT)

### **Proper Shipping Description:**

UN3480 Lithium-ion batteries; UN3481 Lithium-ion batteries packed with or contained in equipment; Class 9. UN No.:3171 Battery powered vehicle or battery powered equipment.

Batteries are to be shipped in compliance with relevant requirements of HMR "49 CFR173.185".

# 14.2. CANADA TRANSPORT DANGEROUS GOODS (RE: GROUND TRANSPORT)

### **Proper Shipping Description:**

UN3480 Lithium-ion batteries; UN3481 Lithium-ion batteries packed with or contained in equipment; Class 9. UN No.:3171 Battery powered vehicle or battery powered equipment.

Batteries are to be shipped in compliance with relevant requirements of TDG "Part 2" (Section 2.43),or TDG "Schedule 2" (Special Provision 34), as applicable.

### 14.3. INTERNATIONAL DANGEROUS GOODS REGULATIONS (RE: AIR, SEA, GROUND TRANSPORT) **Proper Shipping Description:**

UN3480 Lithium-ion batteries; UN3481 Lithium-ion batteries packed with or contained in equipment; Class 9.

UN No.:3171 Battery powered vehicle or battery powered equipment.

Batteries are to be shipped in compliance with relevant requirements of the following DG Regulations:

# -ICAO Technical Instructions or IATA Dangerous Goods Regulations (63th Edition): Packing Instructions 965; 966; 967 (Section IB, Section I, or Section II, as applicable).

- IMDG Code: Packing Instruction P903, or Special Provision 188, as applicable.
- UN Model Regulations on the Transport of Dangerous Goods: Packing Instruction P903, or Special Provision 188, as applicable.

- UN European Agreements (ADR/RID/ADN): Packing Instruction P903, or Special Provision 188, as applicable. -

Australian Dangerous Goods (ADG): Packing Instruction P903, or Special Provision 188, as applicable.

### 14.4. UN 38.3 BATTERY TRANSPORTATION TESTING:

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 Tests and Criteria that can be treated as "Non-Dangerous Goods"

Manual of Tes	t and Criteria (38.3 Lithium battery)	Test Results	Remark
No	Test Item		
T1	Altitude Simulation	Pass	
T2	Thermal test	Pass	
Т3	Vibration	Pass	
T4	Shock	Pass	
T5	External Short Circuit	Pass	
Т6	Impact	Pass	For cell only
Т7	Overcharge	Pass	
Т8	Forced discharge	Pass	For cell only

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# SECTION 15: REGULATORY INFORMATION

# **15.1. GLOBAL INVENTORIES**

TSCA: United States	See Sec. 14. Compliant with, relevant transportation test requirements as described in the UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
DSL: Canada	See Sec. 14. Compliant with, relevant transportation test requirements as described in the
	UN Manual of Tests & Criteria, Part III, Sub-section 38.3.
ECL: Korea	Compliant with, relevant transportation test requirements as described in the UN Manual
	of Tests & Criteria, Part III, Sub-section 38.3.
PICCS: Philippines	Compliant with, relevant transportation test requirements as described in the UN Manual
	of Tests & Criteria, Part III, Sub-section 38.3.
ENCS: Japan	Compliant with, relevant transportation test requirements as described in the UN Manual
	of Tests & Criteria, Part III, Sub-section 38.3.
AICS: Australia	Compliant with, relevant transportation test requirements as described in the UN Manual
	of Tests & Criteria, Part III, Sub-section 38.3.
IECS: China	Compliant with, relevant transportation test requirements as described in the UN Manual
	of Tests & Criteria, Part III, Sub-section 38.3.
EINECS: European Union	Compliant with, relevant transportation test requirements as described in the UN Manual
	of Tests & Criteria, Part III, Sub-section 38.3

# 15.2. SARA 313 Information:

SARA Title III Section 313: This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR par 372.

**15.3. California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)** This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

# 15.4. WHMIS: Canadian Workplace

This product does not contain regulated levels of any toxic chemical subject to the reporting requirements

# SECTION 16: OTHER INFORMATION

# 16.1. ABBREVIATIONS:

1040	Internetic and Chill Anistic a Operation
TSCA	Toxic Substance Control Act

- ICAO ..... International Civil Aviation Organization
- IMDG ...... International Maritime Dangerous
- **OSHA** ..... Occupational Safety and Health
- IARC/NTP ...... International Agency for Research on Cancer/National Toxicology Program
- SARA ...... Superfund Amendments and Reauthorization Act of 1986
- ACGIH ...... American Conference of Governmental Industrial Hygienists
- NIOSH/MSHA ...... National Institute for Occupational Safety Health/Mine Safety and Health Administration

WHMIS ...... Workplace Hazardous Materials Information System

# 16.2. Other Information:

This document has been prepared in accordance with the MSDS requirements, batteries referenced herein are considered exempt articles and are not subject to the OSHA Hazard Communication Standard; therefore a SDS is not required, This sheet is being provided as a service to our customers.

The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation ,makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereto.