



**4 First aid measures** (in case of electrolyte leakage from the battery)

- Eye contact : Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing. Get immediate medical treatment. If appropriate procedures are not taken, this may cause eye injury.
- Skin contact : Wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin.
- Inhalation : Remove to fresh air immediately. Get medical treatment immediately.

**5 Firefighting measures**

- Fire extinguishing agent : Alcohol-resistant foam and dry sand are effective.
- Extinguishing method : Since vapor, generated from burning batteries may make eyes, nose and throat irritates, be sure to extinguish the fire on the windward side. Wear the respiratory protection equipment in some cases.

**6 Accidental release measures** (in case of electrolyte leakage from the battery)

- Take up with absorbent cloth, treat cloth as inflammable.  
Move the battery away from the fire.

**7 Handling and storage**

- Handling :
- When packing the batteries, do not allow battery terminals to contact each other, or contact with other metals. Be sure to pack batteries by providing partitions in the packaging box, or in a separate plastic bag so that the single batteries are not mixed together.
  - Use strong material for packaging boxes so that they will not be damaged by vibration, impact, dropping and stacking during their transportation.
  - Do not short-circuit, recharge, deform, throw into fire or disassemble.
  - Do not mix different type of batteries.
  - Do not solder directly onto batteries.
  - Insert the battery correctly in electrical equipment.
- Storage :
- Do not let water penetrate into packaging boxes during their storage and transportation.
  - Do not store the battery in places of the high temperature or under direct sunlight.
  - Please also avoid the places of high humidity. Be sure not to expose the battery to condensation, rain or frozen condition

**8. Exposure controls and personal protection**

Acceptable concentration : Not specified about Lithium Battery.  
Facilities : Nothing in particular.

Protective Equipment (in case of electrolyte leakage from the battery)

Respiratory Protection : Self-Contained Breathing Apparatus for organic gases  
Hand Protection : Safety gloves.  
Eye Protection : Safety goggle

**9. Physical and chemical properties**

Appearance : Cylindrical shape  
Nominal Voltage : 3 V

**10. Stability and reactivity**

Since batteries utilize a chemical reaction they are actually considered a chemical product.

As such, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, the various usage conditions such as discharge, ambient temperature, etc. are not maintained within the specified ranges the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage.

**11. Toxicological information (in case of electrolyte leakage from the battery)**

Acute toxicity : Oral(rat) LD50 > 2000mg/kg (estimated)  
Irritation : Irritating to eye and skin.  
Mutagenicity : Not specified.  
Chronic toxicity : Not specified.

**12. Ecological information**

In case of the worn out battery was disposed in land, the battery case may be corroded, and leak electrolyte. However, there is no environmental impact information.

Mercury (Hg), Cadmium (Cd) and Lead (Pb) are not used in cell.

**13. Disposal considerations**

When the battery is worn out, dispose of it under the ordinance of each local government.

**14. Transport information**

During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.

During the transportation do not allow packages to be dropped or damaged.

Proper shipping name : Lithium metal batteries

UN Number, UN Class : UN3090, Class9 (for the Air transport by PI968 Section IA or IB)  
: Exemption (for the Marine transport and the Air transport by Section II of PI 968, 969 or 970)  
Even though the cells are classified as lithium metal batteries (UN3090 or UN3091), they are not subject to some requirements of

Dangerous Goods Regulations because they meet the following:

1. for cells, the lithium content is not more than 1g ;
2. each cell is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part , sub-section 38.3.
3. each cell is manufactured in ISO9001 certified factory.

Please refer to the following reference information about concrete ways of transportation. Actual content of packaging label and shipping documents varies by shipping companies. Make sure to confirm in advance with your shipping company.

Information of reference

	Reference	Packing Instruction(PI)/ Special provision(SP)	Note
Air transport	IATA DGR	PI 968 Section A	Cells, Cargo Aircraft only; Net quantity per package Max. 35kg
		PI 968 Section B	Cells, Cargo Aircraft only; net quantity per package Max. 2.5kg
		PI 968 Section	Cells, on Cargo Aircraft only, not more than one package in any single consignment. Maximum number of cells per package; 8 cells
		PI 969 Section	Cells packed with equipment
		PI 970 Section	Cells contained in equipment
Marine transport	IMDG Code	SP 188	

**15. Regulatory information**

- IATA Dangerous Goods Regulations 60th Edition (IATA DGR)
- IMO International Maritime Dangerous Goods Code 2016 and 2018 Edition (IMDG Code)
- UN Recommendations on the Transportation of Dangerous Goods, Model Regulations
- UN Recommendations on the Transportation of Dangerous Goods, Manual of Tests and Criteria
- EU Battery Directive ( 2006/66/EC, 2013/56/EU)
- Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- State of California Regulations - Best management practices for Perchlorate Materials
- Act on Preventing Environmental Pollution of Mercury (Japan)

**16. Other information**

This PSDS is provided to customers as reference information in order to handle batteries safely. It is necessary for the customer to take appropriate measures depending on the actual situation such as the individual handling, based on this information.

Prepared by : Engineering Department  
 Energy Device Business Division  
 Panasonic Corporation

**PRODUCT SAFETY DATA SHEET****PRODUCT NAME:** Energizer Battery**Type No:** 123, 1CR2, 223, 2CR5, 2L76, CRV3, LA522, L522**Volts:**  
3.0, 9.0**TRADE NAMES:** Cylindrical Lithium Manganese Dioxide Batteries**Approximate Weight:** 11 – 40 g.**CHEMICAL SYSTEM:** Lithium Manganese Dioxide**Designed for Recharge:** No**Document Number:** 12004-A

Energizer has prepared copyrighted Product Safety Datasheets to provide information on the different Eveready/Energizer battery systems. Batteries are articles as defined under the GHS and exempt from GHS classification criteria (Section 1.3.2.1.1 of the GHS). The information and recommendations set forth herein are made in good faith, for information only, and are believed to be accurate as of the date of preparation. However, ENERGIZER BATTERY MANUFACTURING, INC. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.

**SECTION 1 - MANUFACTURER INFORMATION**

Manufactured for  
Energizer Battery Manufacturing, Inc.  
25225 Detroit Rd.  
Westlake, OH 44145

Telephone Number for Information:  
800-383-7323 (USA / CANADA)

Date Prepared: January 2017

**SECTION 2 – HAZARDS IDENTIFICATION****GHS classification:** N/A**Signal Word:** N/A**Hazard Classification:** N/A

Under normal conditions of use, the battery is hermetically sealed.

**Ingestion:** Swallowing a battery can be harmful.**Inhalation:** Contents of an open battery can cause respiratory irritation.**Skin Contact:** Contents of an open battery can cause skin irritation.**Eye Contact:** Contents of an open battery can cause severe irritation.**SECTION 3 - INGREDIENTS**

**IMPORTANT NOTE:** The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

MATERIAL OR INGREDIENT	PEL (OSHA)	TLV (ACGIH)	%/wt.
Carbon Black (CAS# 1333-86-4)	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	0-1
1,2-Dimethoxyethane (CAS# 110-71-4)	None established	None established	0-6
1,3-Dioxolane (CAS# 646-06-0)	None established	None established	0-8
Graphite (CAS# 7782-42-5)	15 mg/m <sup>3</sup> TWA (total dust) 5 mg/m <sup>3</sup> TWA (respirable fraction)	2 mg/m <sup>3</sup> TWA (respirable fraction)	0-3
Lithium or Lithium Alloy (CAS# 7439-93-2)	None established	None established	1-6

Lithium Trifluoromethanesulfonate (CAS# 33454-82-9)	None established	None established	0-3
Lithium Trifluoromethanesulfonimide (CAS# 90076-65-6)	None established	None established	0-3
Manganese Dioxide (CAS# 1313-13-9)	5 mg/m <sup>3</sup> Ceiling (as Mn)	0.2 mg/m <sup>3</sup> TWA (as Mn)	12-42
Propylene Carbonate (CAS# 108-32-7)	None established	None established	0-8
Non-Hazardous Components:			
Steel (iron CAS# 65997-19-5)	None established	None established	20
Plastic and Other	None established	None established	Balance

**SECTION 4 – FIRST AID MEASURES**

**Ingestion:** Do not induce vomiting or give food or drink.  
**Inhalation:** Provide fresh air and seek medical attention.  
**Skin Contact:** Remove contaminated clothing and wash skin with soap and water.  
**Eye Contact:** Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.  
**Note:** Carbon black is listed as a possible carcinogen by International Agency for Research on Cancer (IARC).

**SECTION 5- FIRE FIGHTING MEASURES**

In case of fire where lithium batteries are present, flood area with water or smother with a Class D fire extinguishant appropriate for lithium metal, such as Lith-X. Water may not extinguish burning batteries but will cool the adjacent batteries and control the spread of fire. Burning batteries will burn themselves out. Virtually all fires involving lithium batteries can be controlled by flooding with water. However, the contents of the battery will react with water and form hydrogen gas. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended. A smothering agent will extinguish burning lithium batteries.  
 Emergency Responders should wear self-contained breathing apparatus. Burning lithium manganese dioxide batteries produce toxic and corrosive lithium hydroxide fumes.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

To cleanup leaking batteries:  
**Ventilation Requirements:** Room ventilation may be required in areas where there are open or leaking batteries.  
**Respiratory Protection:** Avoid exposure to electrolyte fumes from open or leaking batteries.  
**Eye Protection:** Wear safety glasses with side shields if handling an open or leaking battery.  
**Gloves:** Use neoprene or natural rubber gloves if handling an open or leaking battery.  
 Battery materials should be collected in a leak-proof container.

**SECTION 7 - HANDLING AND STORAGE**

**Storage:** Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life. In locations that handle large quantities of lithium batteries, such as warehouses, lithium batteries should be isolated from unnecessary combustibles.  
**Mechanical Containment:** If potting or sealing the battery in an airtight or watertight container is required, consult your Energizer Battery Manufacturing, Inc. representative for precautionary suggestions. Do not obstruct safety release vents on batteries. Encapsulation of batteries will not allow cell venting and can cause high pressure rupture.  
**Handling:** Accidental short circuit for a few seconds will not seriously affect the battery. Prolonged short circuit will cause the battery to lose energy, generate significant heat and can cause the safety release vent to open. Sources of short circuits include jumbled batteries in bulk containers, metal jewelry, metal covered tables or metal belts used for assembly of batteries into devices. Damaging a lithium battery may result in an internal short circuit.

The contents of an open battery, including a vented battery, when exposed to water, may result in a fire and/or explosion. Crushed or damaged batteries may result in a fire.

If soldering or welding to the battery is required, consult your Energizer representative for proper precautions to prevent seal damage or short circuit.

**Charging:** This battery is manufactured in a charged state. It is not designed for recharging. Recharging can cause battery leakage or, in some cases, high pressure rupture. Inadvertent charging can occur if a battery is installed backwards.

**Labeling:** If the Energizer label or package warnings are not visible, it is important to provide a package and/or device label stating:

WARNING: Battery can explode or leak and cause burns if installed backwards, disassembled, charged, or exposed to water, fire or high temperature.

Where accidental ingestion of small batteries is possible, the label should include:



**(1) KEEP OUT OF REACH OF CHILDREN.** Swallowing may lead to serious injury or death in as little as 2 hours due to chemical burns and potential perforation of the esophagus. **Immediately see doctor; have doctor phone (202) 625-3333.** Keep in original package until ready to use. Dispose of used batteries immediately.

#### SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation Requirements:** Not necessary under normal conditions.

**Respiratory Protection:** Not necessary under normal conditions.

**Eye Protection:** Not necessary under normal conditions.

**Gloves:** Not necessary under normal conditions.

#### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Solid object
Upper Explosive Limits:	Not applicable for an Article
Lower Explosive Limits	Not applicable for an Article
Odor	No odor
Vapor Pressure (mm Hg @ 25°C)	Not applicable for an Article
Odor Threshold	No odor
Vapor Density (Air = 1)	Not applicable for an Article
pH	Not applicable for an Article
Density (g/cm <sup>3</sup> )	2.0-3.0

Melting point/Freezing Point	Not applicable for an Article
Solubility in Water (% by weight)	Not applicable for an Article
Boiling Point @ 760 mm Hg (°C)	Not applicable for an Article
Flash Point	Not applicable for an Article
Evaporation Rate (Butyl Acetate = 1)	Not applicable for an Article
Flammability	Not applicable for an Article
Partition Coefficient	Not applicable for an Article
Auto-ignition Temperature	Not applicable for an Article
Decomposition Temperature	Not applicable for an Article
Viscosity	Not applicable for an Article

**SECTION 10 – STABILITY AND REACTIVITY**

Lithium manganese dioxide batteries contain no sulfides or cyanides and they do not meet any other reactivity criteria including “reacts violently with water” and therefore do not meet any of the criteria established in 40 CFR 261.2 for reactivity.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

Under normal conditions of use, lithium manganese dioxide batteries are non-toxic.

**SECTION 12 – ECOLOGICAL INFORMATION**

Issues such as ecotoxicity, persistence and bioaccumulation are not applicable for articles.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

LiMnO<sub>2</sub> batteries are not hazardous waste per the United States Resource Conservation and Recovery Act(RCRA) - 40 CFR Part 261 Subpart C. Dispose of in accordance with all applicable federal, state and local regulations.

**SECTION 14 – TRANSPORT INFORMATION**

In general, all batteries in all forms of transportation (ground, air, or ocean) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in “strong outer packaging” that prevents spillage of contents. All original packaging for Energizer lithium batteries are compliant with these regulatory concerns.

## PRODUCT SAFETY DATASHEET

Energizer lithium manganese dioxide batteries are exempt from the classification as dangerous goods as they meet the requirements of the special provisions listed below. (Essentially, they are properly packaged and labeled, contain less than 1 gram of lithium and pass the tests defined in UN model regulation section 38.3).

Regulatory Body	Special Provisions
ADR	188, 230, 310, 636, 656
IMDG	188, 230, 310, 957
UN	UN 3090, UN 3091
US DOT	29, A54, A100, A101
IATA 58 <sup>th</sup> Edition, ICAO	Packaging Instructions 968 - 970
Transport Canada TDG	34

Energizer is registered with CHEMTREC. In the event of an incident during transport call 1-800-424-9300 (North America) or 1-703-527-3887 (International).

A global lithium label chart is provided below to summarize the current global labeling requirements.

Label Summary Chart

Shipping Mode	Li content	Net quantity wt. of batteries per package	Battery Type			
AIR	0.3g to $\leq$ 1g/cell 0.3g to $\leq$ 2g/ battery	$\leq$ 2.5 kg	123, 1CR2, 223, 2CR5, 2L76, CRV3, LA522	YES	YES	YES
	$\leq$ 0.3g/cell	$\leq$ 2.5kg	All Li Coin and 2L76	NO	YES	YES
	$\leq$ 0.3g/cell	>2.5kg	All Li Coin and 2L76	YES	YES	YES
Land/ Sea only	All	All	All	NO	YES	YES

### SECTION 15 - REGULATORY INFORMATION

Outside of the transportation requirements noted in Section 14, lithium manganese dioxide batteries marketed by Energizer Battery Manufacturing, Inc. are not regulated.

SARA/TITLE III - As an article, this battery and its contents are not subject to the requirements of the Emergency Planning and Community Right-To-Know Act.

### SECTION 16 - OTHER INFORMATION

None.



Issued date: April 14, 2016

## SAFETY DATA SHEET (SDS)

### 1. Product and Company identification

Product Category : Manganese Dioxide Primary Lithium Battery

Nominal Voltage : 3V

Product name

Type	Lithium (g)	Type	Lithium (g)
CR17335E-R	0.57	CR17335HE-R	0.50
CR17450E-R	0.86	CR17450HE-R	0.74
CR17335E-N	0.63	CR17450HE-N	0.87
CR17450E-N	0.96	CR17450ENS	0.87
CR17335EF	0.50	CR17450EG	0.83
CR17335HEF	0.59	CR17450ES	0.83
CR17335EG	0.63	CR2	0.34
CR17335EL	0.50	CR123A	0.60

Supplier's Name : FDK CORPORATION

Supplier's Address : 1-6-41, Konan, Minato-ku, Tokyo 108-8212 Japan  
 Telephone +81-3-5715-7435

Emergency Contact : CHEMTREC at (800)424-9300

Note: SDS is not applicable to the product hermetically sealed as dry battery. The battery has no risk to life and health under normal use or transportation because ingredients of battery are not leaked out by virtue of hermetical sealing with metal case.

This SDS notify possible risk of our battery under abnormal use but mainly aim to provide information about ingredients, notification of handling and transportation regulations as a useful reference.

### 2. Hazards identification

The important hazards and adverse effects of the chemical product	No information available
Chemical product - specific hazards	No information available
Outline of an anticipated emergency	Chemical contents are sealed in metal can. Therefore, risk of exposure never occurs unless battery is mechanically or electrically abused. Risk of explosion by fire is anticipated if batteries are disposed of in fire or heated above 100 degree Celsius. Stacking or jumbling of batteries may cause external short circuits, heat generation, in some case, allowing fire or explosion.

Note) Our battery is not classified in accordance with the GHS classification.

### 3. Principal Composition/ information on Ingredients

Part	Material	CAS No.	Contents
Positive electrode	Manganese Dioxide	1313-13-9	30 ~ 45 wt%
Negative electrode	Lithium metal	7439-93-2	3 ~ 4 wt%
Electrolyte	1,2-Dimethoxyethane	110-71-4	6 ~ 8.5 wt%
	Mixture of organic solvent	N/A	3 ~ 10 wt%

4. First-aid measures

Inhalation	If ingredient leaked out from inside of a battery and if inhaled it, move to a place where fresh air is provided. Refer for medical attention.
Skin contact	If ingredient leaked out from inside of a battery and stuck on skin, wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin. Refer for medical attention.
Eyes contact	If ingredient leaked out from inside of a battery and came into eyes, flush the eyes with plenty of water for at least 15 minutes immediately without rubbing. Take a medical treatment. If appropriate procedures are not taken, this may cause an eye irritation.
Swallowing	In case of swallowing of battery, immediately refer for medical attention.

5. Fire-fighting measures

Fire extinguishing agent:

Dry chemical, alcohol-resistant foam, powder, atomized water, carbon dioxide and dry sand are effective.

Extinguishing method:

Escape batteries to safe place prevent from ignition by spreading fire.

Because packaging material of battery is paper, use water extinguisher, CO2 extinguisher or powder extinguisher as normal extinguisher.

Since vapor, generated from burning batteries may make eyes, nose and throat irritate, be sure to extinguish the fire on the windward side. Wear the respiratory protection equipment in some cases.

6. Accidental release measures

Chemical contents are sealed in metal can. But if the battery is mechanically or electrically abused, contents may leak out. In such case, take action as showing below.

Personal precautions: Temporary inhalation of odor and attaching of electrolyte to skin does not cause serious health hazard. Be sure the ventilation and washing out of electrolyte quickly.

Environmental precautions: Clean up it quickly. Specific environmental precaution is not necessary.

Method and materials for containment and methods and materials for cleaning up:

Contain and collect spillage and place in container for disposal according to local regulations.

7. Handling and storing

Handling	Do not short-circuit, disassemble, deform, heat or incinerate. Do not pile up or mingle batteries with each other. Do not place battery on metal case, metal plate or antistatic material. In case of multi cell application, replace all batteries to new at once when replacing used batteries.
Storage	Be sure to store batteries in well-ventilated, dry and cool conditions. Keep away from water, rain, snow, frost or dew condensation. Do not store batteries near source of heat or nozzle of hot air. Do not store batteries in direct sunshine. Take care not to get wet packing by dew condensation when packing is removed from cold to warm and humid condition. Enough number of fire fighting apparatuses should be installed in warehouse.

8. Exposure controls and personal protection

There is no need of personal protective equipment on regular handling and storage. In the event, however, a large amount of electrolyte should be released by mechanical or electrical abuse, use the protections as shown below.

Respiratory protection : Mask (with a filter preferably)

Hand protection : Synthetic rubber gloves

Eye protection : Goggles or glasses

9. Physical and chemical properties

State : Solid  
Shape : Cylindrical

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10. Stability and reactivity

Stability: Stable on regular handling

Conditions to avoid: External short circuit of battery, deformation by crush, exposure at high temperature of more than 100 degree C (may cause heat generation and ignition), direct sunlight, high humidity

Materials to avoid: Substances that cause short circuit.

---

11. Toxicological information

Since chemicals are contained in a sealed can, there are no hazards.

Toxicological information of main components of battery is shown below as reference.

Manganese Dioxide

Acute toxicity: rabbit :  $LD_{50}$ (blue pipe) =45mg/kg, mouse:  $LD_{50}$ (subcutaneous)=422mg/kg

Local effects: Stimulus to an eye, a nose, a throat, and a skin

Chronic toxicity or long-term toxicity: Inhalation of powder dust or fume for a long time (at least 3 months) may cause specific central nerve symptom like Parkinson's disease.

Lithium metal

Acute toxicity: No information in a metal state

Local effects: Touching on a skin or an eye causes thermal burn and alkaline chemical burn.

1,2-Dimethoxyethane

Acute toxicity: mouse:  $LD_{50}$ (subcutaneous)=2.5mg/kg

Local effects: Slight stimulus to skin

Mixture of organic solvent

Acute toxicity: No information at present

Local effects: Slight stimulus to an eye

---

12. Ecological information

Persistence and degradability	No information available
Mobility in soil	No information available

---

13. Disposal considerations

Dispose of batteries in accordance with applicable federal, state and local regulations.

For safety precaution, battery should be insulated in proper manner; covering both terminals by tape, wrapping of battery in insulative bag or packing battery in original package is recommended in order to prevent ignition or explosion due to short-circuit.

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14. Transportation Information

Lithium metal cells and batteries are classified as Class 9 Dangerous Goods in the United Nations Recommendation, and given UN numbers as shown in the below table. In case of transport of lithium metal cells and batteries, compliance with all the relevant UN regulations in addition to the requirements of United Nations Recommendation is required.

Our battery (listed on section 1) and its shipping package complies with the requirement of UN Manual of Test and Criteria, Part III, subsection 38.3 as well as the requirements described below, so it is permitted to transport.

<Air Transport>

Our battery is applicable to IATA Dangerous Goods Regulations (IATA-DGR) Packing Instruction 968 section IB because it corresponds to either case that the cell – lithium content is more than 0.3g and less than 1g or the battery – lithium content is more than 0.3g and less than 2g. Our battery and its shipping package is permitted to transport as Class 9 Dangerous Goods but without using packing group II package when it complies with all requirements of the transport conditions for Section IB.

Our products can be transported by cargo aircraft only since our products are classified into lithium metal batteries. However, in the case of transporting our cells or batteries packed with or contained in equipment, such cells or batteries are permitted for carriage on passenger aircraft.

<Sea Transport>

Our battery is applicable to the International Maritime Dangerous Goods Code (IMDG-Code) Special provision 188 because it corresponds to either case that the cell – lithium content is less than 1g or the battery – lithium content is less than 2g, so it is permitted to transport as Exempted Dangerous Goods when it complies with all requirements of the transport conditions.

UN No.	Packing Instruction	Proper Shipping Name/Description
3090	968	Lithium metal batteries
3091	969	Lithium metal batteries packed with equipment
3091	970	Lithium metal batteries contained in equipment

Related regulations: Following regulations shall be cited and considered.

Transportations	Related organization / Issue documents
Air transport (by airplane)	ICAO (International Civil Aviation Organization) / TI (Technical Instruction) IATA (International Air Transport Association) / DGR (Dangerous Goods Regulations) *1
Maritime transport (by ship)	IMO (International Maritime Organization) / IMDG Code (International Maritime Dangerous Goods Code) *2
Land transport (Intra-European)	RID (International Carriage of Dangerous Goods by Rail) , ADR (International Carriage of Dangerous Goods by Road)
USA / UN	USDOT (US Department of Transportation) / DOT 49 CFR (US law) UN: Recommendations on the transport of dangerous goods: Manual of Tests and Criteria 5th revised edition Amendment 2 [ST/SG/AC.10/11/Rev.5/Amend.2]: Part III, Subsection 38.3

15. Applicable legislation  
 EU Directive 2006/66/EC

16. Other information

Reference

- IATA Dangerous Goods Regulations, latest edition \*1

Notes on this sheet

\*1 Dangerous Goods Regulations – 57<sup>th</sup> Edition Effective 1 January 2016: International Air Transport Association (IATA)

\*2 IMDG Code – 2012 Edition: International Maritime Organization (IMO)

This sheet refers to normal use of the product in question. FDK Corp. makes no warranty expressed or implied.