Panasonic Industrial Devices Sales Company of America
Energy Division
a Division of Panasonic Corporation of North America
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To Whom It May Concern:

# Declaration of Conformity

We, Panasonic Industrial Devices Sales Company of America (PIDSA)/ Sanyo Energy (U.S.A.) Corporation located at 3461 Plano Parkway, The Colony, Texas 75056 hereby declares that under our sole responsibility that iRobot product models listed below are being manufactured by Panasonic or Sanyo Factories with the use of Panasonic or Sanyo cells covered within the Safety Data Sheet or "SDS" as referenced below.

Sanyo Safety Data Sheet for Product or "SDS", Product: Lithium-ion rechargeable battery cell, Reference number SDS-IBT-00030, Establishment/ Revision: Jan. 1, 2023 is applicable for Project Names, Model Numbers and Cell Mfg. part numbers as below.

| Battery Pack Model Number [RMN] | iRobot Part Number [Accessory/Spare] | Panasonic/SANYO Cell Model |
|---|---|---|
| 4376392 | 4462425 | UR18650A - 4 series 2 parallel (8 Cell) pack,<br>14.4 V, 3300 mAh, 48Wh.<br>-> ELC per pack: 3.96 g; ELC per cell: 0.5 g |
| 4446040 | 4497680 | UR18650A - 1 cell pack,<br>3.6 V, 1950 mAh, 7.1 Wh.<br>-> ELC per cell/pack: 0.59 g |
| 1800LI | 4502233 | UR18650A - 4 series 1 parallel (4 Cell) pack,<br>14.4 V, 1800 mAh, 26 Wh.<br>-> ELC per pack: 2.16 g; ELC per cell: 0.54 g |
| ABL-A | 4656170 | UR18650AA - 8 series 2 parallel (16 Cell) pack,<br>28.8 V, 3400 mAh, 98 Wh.<br>-> ELC per pack: 8.16 g; ELC per cell: 0.51 g |
| ABL-B | 4519177<br>4650994 | UR18650AA - 4 series 2 parallel (8 Cell) pack,<br>14.4 V, 3300 mAh, 48Wh.<br>-> ELC per pack: 3.96 g; ELC per cell: 0.5 g |
| ABL-C | 4650149<br>4650151<br>4650152 | UR18650A - 3 series 1 parallel (3 Cell) pack,<br>10.8 V, 1775 mAh, 19 Wh.<br>-> ELC per pack: 1.64 g; ELC per cell: 0.54 g |

| | | |
|---|---|---|
| ABL-D1 | 4613095<br>4624864 | UR18650A - 4 series 1 parallel (4 Cell) pack,<br>14.4 V, 1800 mAh, 26 Wh.<br>-> ELC per pack: 2.16 g; ELC per cell: 0.54 g |
| ABL-D1A | 4613095 | UR18650A - 4 series 1 parallel (4 Cell) pack,<br>14.4 V, 1800 mAh, 26 Wh.<br>-> ELC per pack: 2.16 g; ELC per cell: 0.54 g |
| ABL-D2 | 4705738<br>4706313 | NCR18650PF - 4 series 1 parallel (4 Cell) pack,<br>14.4 V, 2210 mAh, 32Wh.<br>-> ELC per pack: 3.24 g; ELC per cell: 0.81 g |
| ABL-D2A | 4748680<br>4763362 | UR1865ZP - 4 series 1 parallel (4 Cell) pack,<br>14.4 V, 2220 mAh, 32 Wh.<br>-> ELC per pack: 2.96 g; ELC per cell: 0.74 g |
| ABL-D2B | 4774353<br>4763362 | UR1865ZP - 4 series 1 parallel (4 Cell) pack,<br>14.4 V, 2220 mAh, 32 Wh.<br>-> ELC per pack: 2.96 g; ELC per cell: 0.74 g |
| ABL-F | 4785636 | UR1865ZP - 4 series 2 parallel (8 Cell) pack,<br>14.4 V, 4460 mAh, 64.2 Wh.<br>-> ELC per pack: 5.92 g; ELC per cell: 0.74 g |

Tsutomu Kubota

Senior Administrator, Product Environmental Compliance
Energy Division – Engineering Planning & Certification
Panasonic Industrial Devices Sales Company of America,
a Division of Panasonic Corporation of North America

January 9, 2023

# Safety data sheet for product

- This product is an "article" used with the contents sealed. Therefore, issuing and providing SDS is not required by the GHS or any law based on GHS.
- This document has been prepared not to satisfy requirements such as GHS, but for the purpose of providing safety information to customers.
- Refer the other document issued by the shipper, when you want to know whether your current packaging and content comply with transport regulations.

## 1. PRODUCT AND COMPANY IDENTIFICATION

- Product name: Lithium ion rechargeable battery cell
- Product code: None
  (All models SANYO manufactured including the cell branded as Panasonic.)
- Company name: SANYO Electric Co., Ltd., an affiliated company of Panasonic Energy Co., Ltd.
- Address: 1-1 Matsushita-cho, Moriguchi City, Osaka 570-8511, Japan
- Telephone number: +81-80-8932-7972
- Emergency telephone number: +81-6-6994-4933

## 2. HAZARDS IDENTIFICATION

For the battery cell, chemical materials are stored in a hermetically sealed metal or metal laminated plastic case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there are no physical hazards such as ignition, explosion and chemical hazards due to leakage of battery contents.

However, if exposed to a fire, added mechanical shocks, decomposed, added electric stress by miss-use, the gas release vent will be operated. The battery cell case will be breached at the extreme, hazardous materials may be released.

Also, if it is heated strongly by surrounding fires or the like, there is a possibility that irritating or harmful gas may be generated.

- GHS classification: Not available
  (This product is outside the scope of GHS system since it's considered as an "article".)

- Most important hazard and effects
  Human health effects:
  Inhalation: The steam of the electrolyte has an anesthesia action and stimulates a respiratory tract.
  Skin contact: The steam of the electrolyte stimulates a skin. The electrolyte skin contact causes a sore and stimulation on the skin.
  Eye contact: The steam of the electrolyte stimulates eyes. The electrolyte eye contact causes a sore and stimulation on the eye. Especially, substance that causes a strong inflammation of the eyes is contained.
  Environmental effects: Since a battery cell remains in the environment, do not throw out it into the environment.

- Specific hazards:
  If the electrolyte contacts with water, it will generate detrimental hydrogen fluoride.
  Since the leaked electrolyte is inflammable liquid, do not bring close to fire.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

・Substance or preparation: Preparation
・Information about the chemical nature of product: [a]

| Portion | Material name | CAS No. | Concentration range (wt %) |
|---|---|---|---|
| Positive electrode | Lithium transition metal oxidate ($Li[M]_m[O]_n$ [b]) | 12190-79-3<br>12031-65-1<br>12057-17-9<br>182442-95-1<br>207803-51-8 | 20~60 |
| Positive electrode's base | Aluminum | 7429-90-5 | 1~10 |
| Negative electrode | Carbon | 7782-42-5<br>7440-44-0 | 10~30 |
| Negative electrode's base | Copper | 7440-50-8 | 1~15 |
| Electrolyte | Ethyl methyl carbonate<br>Diethyl carbonate<br>Ethylene carbonate<br>Lithium hexafluorophosphate | 623-53-0<br>105-58-8<br>96-49-1<br>21324-40-3 | 5~25 |
| Outer case | Aluminum, iron, aluminum laminated plastic | 7429-90-5<br>7439-89-6 | 1~30 |

*a Not every product includes all of these materials.*
*b The letter M means transition metal and candidates of M are Co, Mn, Ni and Al. One compound includes one or more of these metals and one product includes one or more of the compounds. The letter m and n means the number of atoms.*

## 4. FIRST-AID MEASURES

**Spilled internal cell materials**

・Inhalation:
Make the victim blow his/her nose, gargle. Seek medical attention if necessary.
・Skin contact:
Remove contaminated clothes and shoes immediately. Wash extraneous matter or contact region with soap and plenty of water immediately.
・Eye contact:
Do not rub one's eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.

**A battery cell and spilled internal cell materials**

・Ingestion:
Wash out mouth thoroughly. Do not make the victim vomit, unless instructed by medical personnel. Seek medical attention immediately.

## 5. FIRE-FIGHTING MEASURES

・Suitable extinguishing media: Plenty of water, carbon dioxide gas, nitrogen gas, chemical powder fire extinguishing medium and fire foam.
・Specific hazards: Corrosive gas may be emitted during fire.
・Specific methods of fire-fighting: When the battery burns with other combustibles simultaneously, take fire-extinguishing method which correspond to the combustibles. Extinguish a fire from the windward as much as possible.
・Special protective equipment for firefighters: Refer to Section 8-EXPOSURE CONTROLS / PERSONAL PROTECTION (WHEN THE ELECTROLYTE LEAKS)

## 6. ACCIDENTAL RELEASE MEASURES

Spilled internal cell materials, such as electrolyte leaked from a battery cell, are carefully dealt with according to the followings.

- Precautions for human body:
  Remove spilled materials with protective equipment (refer to Section 8-EXPOSURE CONTROLS / PERSONAL PROTECTION (WHEN THE ELECTROLYTE LEAKS)). Do not inhale the gas as much as possible. Moreover, avoid touching with as much as possible.
- Environmental precautions: Do not throw out into the environment.
- Method of cleaning up: The spilled solids are put into a container. The leaked place is wiped off with dry cloth.
- Prevention of secondary hazards: Avoid re-scattering. Do not bring the collected materials close to fire.

## 7. HANDLING AND STORAGE

- Handling suggestions
  - Do not connect the positive terminal to the negative terminal with electrical wire or chain.
  - Avoid polarity reverse connection when installing the battery to an instrument.
  - Do not wet the battery with water, seawater, drink or acid; or expose to strong oxidizer.
  - Do not damage or remove the external tube.
  - Keep the battery away from heat and fire.
  - Do not disassemble or reconstruct the battery; or solder the battery directly.
  - Do not give a mechanical shock or deform.
  - Do not use unauthorized charger or other charging method. Terminate charging when the charging process doesn’t end within specified time.
- Storage
  - Do not store the battery with metalware, water, seawater, strong acid or strong oxidizer.
  - Make the charge amount less than or equal to 50% then store at -20~40 degree C in a dry (humidity: 45~85%) place.
    Since deterioration will be faster in the high temperature range than in the low temperature range, so do not keep it in the high temperature range beyond the period that is specified by the seller or owner.
  - Use insulative and adequately strong packaging material to prevent short circuit between positive and negative terminal when the packaging breaks during normal handling. Do not use conductive or easy to break packaging material.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (WHEN THE ELECTROLYTE LEAKS)

- Control parameters
  ACGIH has not been mentioned control parameter of electrolyte.
- Personal protective equipment
  Respiratory protection: Respirator with air cylinder, dust mask
  Hand protection: Protective gloves
  Eye protection: Goggles or protective glasses designed to protect against liquid splashes
  Skin and body protection: Working clothes with long sleeve and long trousers

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance

| | |
|---|---|
| Physical state | : Solid |
| Form | : Cylindrical or Prismatic or Pouch (laminated) |
| Color | : Metallic color or black (without tube if it has tube) |
| Odor | : No odor |
| Density | : N/A |
| Boiling Point | : N/A |
| Melting Point | : N/A |
| Evaporation Rate | : N/A |
| Vapor Pressure | : N/A |
| Molecular Weight | : N/A |
| Solubility | : N/A |
| pH | : N/A |
| Viscosity | : N/A |
| Other Information | ; N/A |

## 10. STABILITY AND REACTIVITY

- Stability: Normally stable unless a strong shock is applied or heated strongly
- Possibility of hazardous reactions: Damage to the container may cause leakage of contents. Contents may leak or ignite due to temperature rise.
- Conditions to avoid: Crushing or deformation, use and storage at 80 degree C or higher or at high humidity. Usage at a voltage or a current outside the rating and external short circuit.
- Incompatible materials: Conductive material such as water or metal pieces. Oxidizing agent such as bleach.
- Hazardous decomposition products: Irritating or harmful gases are released if a leakage or fire occurs.

## 11. TOXICOLOGICAL INFORMATION

**Organic Electrolyte**

- Acute toxicity:
  $LD_{50}$, oral - Rat 2,000mg/kg or more
- Irritating nature: Irritative to skin and eye

## 12. ECOLOGICAL INFORMATION

- Persistence/degradability:
  Since a battery cell and the internal materials remain in the environment, do not bury or throw out into the environment.

## 13. DISPOSAL CONSIDERATIONS

- Recommended methods for safe and environmentally preferred disposal:

**Product (waste from residues)**

Specified collection or disposal of lithium ion battery is required by the law like as "battery control law" in several nations. Collection or recycle of the battery is mainly imposed on battery's manufacturer or importer in the nations recycle is required.

**Contaminated packaging**

Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery cell contaminates, dispose as industrial wastes subject to special control.

## 14. TRANSPORT INFORMATION

In the case of transportation, avoid exposure to high temperature and prevent the formation of any condensation. Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo piles and wet by rain. The container must be handled carefully. Do not give shocks that result in a mark of hitting on a cell. Please refer to Section 7-HANDLING AND STORAGE also.

The table mentioned below is applied to only the lithium ion rechargeable battery cell described in Section 1-PRODUCT AND COMPANY IDENTIFICATION.

| | LAND TANSPORT (ADR) | SEA TRANSPORT (IMDG Code) | AIR TRANSPORT (IATA DGR/ICAO TI) |
|---|---|---|---|
| UN Number [a] | 3480 | 3480 | 3480 |
| Proper Shipping Name [a] | LITHIUM ION BATTERIES (including lithium ion polymer batteries) | LITHIUM ION BATTERIES (including lithium ion polymer batteries) | LITHIUM ION BATTERIES (including lithium ion polymer batteries) |
| Hazard Class | 9 | 9 | 9 |
| Packing Group [b] | II | II | II |

*[a] UN Number is 3481 in case of the battery is contained in equipment or packed with equipment, and Proper Shipping Name is “lithium ion batteries contained in equipment” or “lithium ion batteries packed with equipment”.*
*UN Number is 3171 in case of the battery is contained in vehicle which is only powered by the battery, and Proper Shipping Name is "Battery-powered vehicle".*

*[b] Lithium ion rechargeable battery cell is not assigned to packing groups, and the packaging performance level is set out in the applicable packing instruction. Packing group II is often set out.*

## 15. REGULATORY INFORMATION

・Regulations specifically applicable to the product:
Wastes Disposal and Public Cleansing Law [Japan]
Law for Promotion of Effective Utilization of resources [Japan]
US Department of Transportation 49 Code of Federal Regulations [USA]

** About overlapping regulations, please refer to Section 14-TRANSPORT INFOMATION.*

## 16. OTHER INFORMATION

・This safety data sheet is offered an agency who handles this product to handle it safely.
・The agency should utilize this safety data sheet effectively (put it up, educate person in charge) and take proper measures.
・***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.

Reference

Dangerous Goods Regulations – 64th Edition Effective 1 January 2023: International Air Transport Association (IATA)
IMDG Code – 2022 Edition: International Maritime Organization (IMO)
Agreement concerning the International Carriage of Dangerous Goods by Road – 2021(ADR): The United Nations Economic Commission for Europe (UNECE)

First edition: Apr. 28, 2010
Prepared and approved by: Department of Development strategy
Corporate of Development strategy
Cell Development Division
SANYO Electric Co., Ltd., an affiliated company of Panasonic Energy Co., Ltd.

# 安全技术说明书

该产品是在使用过程中处于密闭状态的“物品”，因此，GHS或任何基于GHS的法规都不要求发行和提供SDS。
此文档的目的是为了向客户提供安全信息，而非为了满足诸如GHS之类法规的要求。
如想了解现在的包装和内部物品是否满足运输法规要求，请参照货主发行的其他资料。

## 第1部分 化学品及企业标识

**化学品中文名**：可充電鋰离子電池
**化学品英文名**：Rechargeable Li- ion Battery
**企业名称**：松下新能源株式会社 三洋电机株式会社
**企业地址**：日本大阪府守口市松下町1-1
**邮　　编**：5708511
**电话号码**：+81-80-8932-7972
**电子邮箱地址**：transport-sds@ml.jp.panasonic.com
**应急咨询电话**：+81-6-6994-4933
**产品推荐及限制用途**：笔记本电脑、扫地机器人、吸尘器、电动自行车、摩托电动车、电动轮椅、扬声器、POS机、游戏机、电子烟、蓝牙耳机等。

## 第2部分 危险性概述

**紧急情况概述**：

本表提及的电池，其化学材料都贮存在密封的金属或金属层压塑料壳中，可承受正常使用过程中的温度和压力。因此，在正常的使用中，没有起火、爆炸等物理性危险、以及由于电池内部物质泄漏导致的化学性危险。
但是，如果将电池暴露在火中、或使其受到强烈的机械冲击、或分解电池、或由于误用电池使其受到电应力影响，则会使电池排气孔开启。极端条件下电池壳会破裂、可能会使电池内部物质露出。
而且，如果在火灾等作用下受到强烈的加热，则有可能产生刺激性或有害的气体。

**GHS危险性类别**：
不适用（本产品不在GHS系统适用范围内，因为本产品被认为是“物品（Article）”。）
**物理和化学危险**：
如果电解液与水接触，会产生有害的氟化氢。
由于泄漏的电解液是易燃液体，应避免靠近火源。
**健康危害**：
吸入：电解液气雾具有麻醉作用，会对呼吸道造成刺激。
皮肤接触：电解液蒸汽会刺激皮肤。皮肤接触电解液会对皮肤造成刺激产生疼痛。
眼睛接触：电解液蒸汽会刺激眼睛。眼睛接触电解液后会对眼睛造成疼痛和刺激。
特别注意，其中含有会引起眼睛强烈炎症的物质。
**环境危害**：
由于电池在环境中无法自然分解，不要排放到环境中。

## 第3部分 成分/组成信息

**原料或制剂**：制剂

**关于产品化学性质的信息**：[a]

| 部分 | 材料名称 | CAS No. | 含量（重量%） |
|---|---|---|---|
| 正极 | 锂的过渡金属氧化物（Li[M]m[O]n [b]） | 12190-79-3<br>12031-65-1<br>12057-17-9<br>182442-95-1<br>207803-51-8 | 20~60 |
| 正极基体 | 铝 | 7429-90-5 | 1~10 |
| 负极 | 碳 | 7782-42-5<br>7440-44-0 | 10~30 |
| 负极基体 | 铜 | 7440-50-8 | 1~15 |
| 电解质 | 碳酸甲乙酯<br>碳酸二乙酯<br>碳酸乙烯酯<br>六氟磷酸锂 | 623-53-0<br>105-58-8<br>96-49-1<br>21324-40-3 | 5~25 |
| 外壳 | 铝、铁、铝层压复合材 | 7429-90-5<br>7439-89-6 | 1~30 |

*a 并非所有的产品都包括所有这些材料。*

*b 字母M表示过渡金属，M可以钴、锰、镍或铝。一种化合物包括这些金属的一种或多种，一种产品包括一种或多种化合物。字母m和n表示原子数目。*

## 第4部分 急救措施

**急救**

· 吸入：让感染者擤鼻子，漱口。必要的话就医。
· 皮肤接触：立即脱去受污染的衣物和鞋子。立即用肥皂和大量清水冲洗异物或受影响的区域。
· 眼睛接触：不要揉自己的眼睛。立即用水冲洗眼睛至少15分钟。立即就医。
· 食入：用水充分清洗口部。如果没有医务工作者的指示，就不能让感染者呕吐。立即接受医生治疗。

## 第5部分 消防措施

**适合的灭火媒介**：大量的水、二氧化碳、氮气、化学干粉灭火剂和泡沫灭火剂。

**特殊危险性**：火灾时可能会释放腐蚀性气体。

**灭火的具体方法**：当电池和其他可燃物同时燃烧时，采取对可燃物有效的灭火方法。
尽量从迎风面灭火。

**消防人员特殊防护设备**：请参阅第8节“暴露控制/个人防护（电解液泄漏时）”

## 第6部分 泄漏应急处理

电池内部材料溢出，如电解质从电池中泄露时，应仔细按下面措施处理。

**人体注意事项**：
采用防护设备（请参阅第8节“暴露控制/个人防护（电解液泄漏时）”）抹掉溢出物。尽可能不要吸入气体。此外，应尽量避免接触。

**环境保护措施**：不要排放到环境中。

**清理方法**：将溢出固体放入容器中。泄漏之处用干布擦拭。

**防止次生危害**：避免再次分散泄漏。不要将收集的材料靠近火源。

## 第7部分 操作处置与储存

**操作注意事项**

- 不要用电线或金属链将正极端子连接到负极端子。
- 将电池安装到设备上时不要逆接电池的正负极。
- 不要用水、海水、饮料或酸弄湿电池；或将电池接触强氧化剂。
- 不要损坏或取下外管。
- 请将电池放置在远离热源和火源之处。
- 不要拆卸或修整电池；不要直接焊接电池。
- 不要使电池遭受机械冲击或使其变形。
- 不要使用未经授权的充电器或其他充电方式。如电池没能在指定时间充满电请终止充电过程。

**储存注意事项**

- 避免将电池与金属制品存放在一起，或是与水、海水、强酸或强氧化剂接触。
- 使电量小于或等于50%，然后在-20~40℃的干燥（湿度：45~85%）的地方保存。
  由于在高温环境下的电芯劣化比在低温环境下更快，因此高温环境下的保存时间不要超出卖方或所有者指定的时间段。
- 使用具有绝缘性且具备充分强度的包装材料，以防止正常使用时因包装破坏而导致的正负两极短路。请勿使用导电或易破包装材料。

## 第8部分 接触控制/个体防护

**控制参数**

ACGIH中没有提到电解液的控制参数。

**个人防护设备**

呼吸系统防护：气瓶式呼吸器、防尘面具
手部防护：防护手套
眼睛防护：护目镜或防护眼镜、防止液体飞溅
身体防护：长袖长裤工作服

## 第9部分 理化特性

**外观与性状**

| | |
|---|---|
| 物理状态 | ：固体 |
| 形状 | ：圆柱形或角形或袋（层压） |
| 颜色 | ：金属色或黑色（如果有管指不含管的颜色） |
| 气味 | ：无异味 |
| 密度 | ：不适用 |
| 沸点 | ：不适用 |
| 熔点 | ：不适用 |
| 蒸发速度 | ：不适用 |
| 蒸汽压力 | ：不适用 |
| 分子量 | ：不适用 |
| 溶解度 | ：不适用 |
| pH值 | ：不适用 |
| 粘度 | ：不适用 |
| 其他信息 | ：不适用 |

## 第10部分 稳定性和反应性

**稳定性：**在非强烈冲击及高热的情况下处于稳定状态
**危险反应：**由于容器损坏导致内部物质泄漏的可能性。
由于温度升高内部物质的泄漏或起火的可能性。
**避免接触的条件：**挤压或变形、80℃以上或高湿度下使用以及储存。
使用额定值外的电压和电流以及外部短路。
**禁配物：**水或金属片等的导电性物质。漂白剂等的氧化剂。
**危险的分解产物：**如果发生泄漏或起火，会释放出刺激性或有害气体。

## 第11部分 毒理学信息

**有机电解液**
**急性毒性：**$LD_{50}$，口服 - 大鼠2000mg/ kg 或以上
**刺激性：**对皮肤和眼睛有刺激作用

## 第12部分 生态学信息

**持久性/降解性：**
由于电池电芯和内部材料在环境中不能自然分解，因此不要将电池掩埋或排放于环境中。

## 第13部分 废弃处理

**安全与环保处理推荐方法：**
**废弃化学品**
多个国家都有“电池控制法”之类的法律对锂离子电池的收集或处理作了规定。电池的收集或回收主要是强加给电池制造商或要求进行循环处理的国家的进口商。
**污染包装物**
正常使用过程中不管是容器还是包装都不会被污染。如果内部材料从电池电芯内泄漏造成污染，则应按工业废物进行专项管理。

## 第14部分 运输信息

**特定的安全对策及条件：** 运输过程中要避免处于高温暴露环境及结霜。
运输过程中要避免货物散落、捆包破损。
防止货物淋雨。
容器必须小心处理以防破损。
注意不要使电池受到冲击。
请同时参考第7节“使用和储存”。

下表仅适用于「1. 产品及公司信息」项中所记述的锂离子二次电池(单电池)。

| | 陆地运输<br>(ADR) | 海上运输<br>(IMDG Code) | 航空运输<br>(IATA DGR/ICAO TI) |
|---|---|---|---|
| UN编号 [a] | 3480 | 3480 | 3480 |
| 正式运输品目名 [a] | LITHIUM ION BATTERIES (including lithium ion polymer batteries) | LITHIUM ION BATTERIES (including lithium ion polymer batteries) | LITHIUM ION BATTERIES (including lithium ion polymer batteries) |
| 危险品分类 | 第9类 | 第9类 | 第9类 |
| 包装等级[b] | II | II | II |

[a] *电池内置于机器设备内或与设备包装在一起时，UN编号为3481、且正式运输品目名为“lithium ion batteries contained in equipment” 或 “lithium ion batteries packed with equipment”。当电池内置在仅由电池驱动的车辆中时，UN编号为3171、正式运输品目名为”Battery-powered vehicle” 。*

[b] *锂离子二次电池(单电池)没有分配包装等级而，是根据包装基准指定了相应的容器。运输时使用联合国标准容器时，常被指定为包装等级II。*

## 第15部分 法规信息

**特别适用于本产品的法规：**

废弃物管理与公共清洁法[日本]
资源有效利用促进法[日本]
美国联邦法规第49章运输[美国]

*法规的重叠部分，请参阅第14节“运输信息”。

## 第16部分 其他信息

- 本安全数据表为了电池得到安全的使用而提供给使用机构的资料。
- 该机构应有效地利用这份安全数据表（粘贴起来，教育负责人），并采取适当的措施。
- 本安全数据表中的资料是根据我们目前的经验以及当前的国家法律编制的。
- 本安全数据表就产品有关的健康、安全和环境方面提供指导，不应解释为对技术性能或特定用途的适用性作担保。

**参考文献:**

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