

SECTION 1: IDENTIFICATION

1.1 Product identifier:

Product name:	APC Rechargeable Lithium-Ion Battery Pack and products containing these packs
Other names:	APC Lithium-Ion Battery Pack, APC Rechargeable Battery Cartridge
Model Numbers:	APCRBC174-LI (other model identifiers -- 911-9023)
Product type:	Battery pack is a manufactured article consisting of a plastic and metal sealed case containing electronics and cylindrical lithium-ion battery/cells. Solid.
Country	USA/Canada
Picture: APCRBC174-LI	

1.2 Identified uses

Relevant identified use(s): Electric Storage Battery
 advised against: Transportation

1.3 Manufacturer

Supplier/Manufacturer:	Schneider Electric IT USA, Schneider Electric IT Corp., (formerly APC by Schneider Electric, APC Sales and Service Corp.)
Address:	70 Mechanic St Foxboro, MA 02035 United States
Telephone:	+1 800-788-2208 or +1 401-789-5735
E-mail:	http://nam-en.apc.com/app/ask
Website:	www.APC.com

1.4 Emergency telephone number (with hours of operation)

For all Service, Technical Support and Emergency Inquires.
800-255-3924 USA and 1-813-248-0585 International

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification Categories/OSHA Status/HCS

While this material is not considered hazardous by OSHA Categories or OSHA Hazard Communication Standard (29 CFR 1910.1200), this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for available for employees and other users of this product.

A battery is considered an article per GHS guidelines and should not be considered dangerous unless it is in a broken condition.

Carcinogenicity (NTP): Not listed
Carcinogenicity (IARC): Not listed
Carcinogenicity (OSHA): Not listed

2.1 Classification of the substance or mixture:


Not classified

2.2 GHS label elements:

Hazard Pictogram: None
Signal word: None
Hazard statements: No known significant effects or critical hazards.

Precautionary statements

Prevention:	Not applicable
Response	Not applicable
Storage	Not applicable
Disposal	Not applicable

Protective Clothing	NFPA Rating	EC classification	WHMIS (Canada)	Transportation	GHS Hazard Symbol
Not Applicable with normal use		Not classified as hazardous	Not Applicable with normal use	See Section 14	Not Applicable with normal use

Hazards not otherwise classified (HNOC)

Physical hazards not otherwise classified (PHNOC): See Section 10

Health hazards not otherwise classified (HHNOC): See Section 11

Environmental hazards: See Section 12

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Product/ingredient name	CAS.NO.	Weight %
LiFePO ₄	15365-14-7	30 - 40%
Graphite	7782-42-5	15 - 20%
Copper	7440-50-8	5 - 10%
Aluminum	7429-90-5	2 - 5%
Lithium Hexafluorophosphate (LiPF ₆)	21324-40-3	10 - 15%
Steel	7439-89-6	15 - 20%
Polypropylene	9003-07-0	2 - 5%
Polyvinyl chloride	9002-86-2	2 - 5%

SECTION 4: FIRST AID MEASURES

General information

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

4.1 Description of necessary first aid measures

Eye contact	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid if irritation persists.
Inhalation	Remove from exposure and move to fresh air immediately. Use oxygen if available.
Skin contact	Remove contaminated clothes and shoes. Immediately wash with water and soap and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

Ingestion	Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician
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4.2 Most important symptoms and effects, both acute and delayed Potential acute health effects.

Eye contact	No data available
Inhalation	No data available
Skin contact	No data available
Ingestion	No data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	none
Specific treatments	No specific treatment
Protection of first aiders	No action shall be taken involving any personal risk or without suitable training

See toxicological information (Section 11)

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Water, CO2
Unsuitable extinguishing media	None Known.
Specific hazards arising from the chemical	Battery may burst and release hazardous decomposition products when exposed to a fire situation.
Hazards thermal decomposition products	Carbon monoxide, carbon dioxide, lithium oxide fumes.

<p>Special protective actions for fire-fighters</p>	<p>Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature , when damaged or abused (e.g., mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in close proximity.</p>
<p>Special protective equipment for fire-fighters</p>	<p>Self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.</p>

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact.
For emergency responders	Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Keep unauthorized personnel away. Wear adequate personal protective equipment as indicated in Section 8.
Environmental precautions	Do not discharge into the drains/surface waters/groundwater.

6.2 Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up:

For all waste handling must refer to United Nations, National and Local Regulations for disposal.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8).
Advice on safe handling	Avoid short circuiting the battery. Avoid mechanical damage of the battery. Do not open or disassemble. Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry, well-ventilated place. Keep away from heat, avoiding the long time of sunlight.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

United States Occupational exposure limits / Canada

None. Airborne exposures to hazardous substances are not expected when the cells or batteries are used for their intended purposes. Exposure standards are not applicable to the sealed articles.

Appropriate engineering controls	Special ventilation is not required when using these products in normal use scenarios. Ventilation is required if there is leakage from the cell or battery.
Environmental exposure controls	No specific precautions necessary.

Individual protection measures

Hygiene measures	When using do not eat, drink or smoke. Wash hands before breaks and after work. Have a safety shower or eye wash station readily available
Eye/face protection	Eye protection is not required when handling cells or batteries during normal use. Wear safety glasses/goggles if handling a leaking or ruptured cell or battery.
Hand protection	Hand protection is not required when handling the cell or battery during normal use. PVC gloves are recommended when dealing with a leaking or ruptured cell or battery.
Body protection	No specific precautions necessary.
Other skin protection	Skin protection is not required when handling the cell or battery during normal use. Wear long sleeved clothing to avoid skin contact if handling a leaking or ruptured cell or battery. Soiled clothing should be washed with detergent prior to re-use.
Respiratory protection	During routine operation, a respirator is not required. However, if dealing with an electrolyte leakage and irritating vapors are generated, an approved half face inorganic vapor and gas/acid/particulate respirator is required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Solid
Color	Silver
Odor	If leaking, smells of medical ether.
Odor threshold	Not applicable.
pH	Not applicable.
Melting point	Not applicable.
Boiling point	Not applicable.

Flash point	Not applicable unless individual components exposed.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable unless individual components exposed.
Lower and upper explosive (flammable) limits	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not applicable.
Solubility in water	Not applicable unless individual components exposed.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Good stability at standard temperature and normal use. This product has no significant reactivity hazard.
Chemical stability	Stable at room temperature in closed containers under normal storage and handling conditions.
Possibility of hazardous reactions	No dangerous reactions known. Hazardous polymerization will not occur
Conditions to avoid	Keep away from open flames, hot surfaces and sources of ignition. Do not puncture, crush or incinerate. Avoid exposing the cell to fire or high temperatures environment. Do not disassemble, crush, short or install with incorrect polarity. Avoid mechanical or electrical abuse.
Incompatible materials	Oxidizing agents, alkalis, water.
Hazardous decomposition products	Toxic Fumes and may form peroxides.
Additional information	If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity	There is no data available.
Irritation/Corrosion	There is no data available.
Sensitization	There is no data available.
Mutagenicity	There is no data available.
Carcinogenicity	There is no data available.

Reproductive toxicity	There is no data available.
Teratogenicity	There is no data available.
Specific target organ toxicity (single exposure)	There is no data available.
Specific target organ toxicity (repeated exposure)	There is no data available.
Aspiration hazard	There is no data available.

Information on the likely routes of exposure: Dermal contact, Eye contact, Inhalation, Ingestion.

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	Eye irritant.	No known significant effects or critical hazards.
Inhalation	Lung irritant.	No known significant effects or critical hazards.
Skin contact	Skin irritant.	No known significant effects or critical hazards.
Ingestion	Poisoning if swallowed.	No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Short term exposure

Potential immediate effects	No known significant effects or critical hazards.
Potential delayed effects	No known significant effects or critical hazards.

Long term exposure

Potential immediate effects	No known significant effects or critical hazards.
Potential delayed effects	No known significant effects or critical hazards.

Potential chronic health effects

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates: There is no data available.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	There is no data available.
Persistence and degradability	There is no data available.
Bio accumulative potential	Slowly Bio-degradable.

Mobility in soil

Soil/water partition coefficient (K_{oc})	No data available.
Other adverse effects	No known significant effects or critical hazards.

Further information

Ecological injuries are not known or expected under normal use. Do not flush into surface water or sanitary sewer system.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not incinerate, or subject cells to temperature in excess of 70°C, such abuse can result in loss of seal leakage, and/or cell explosion.

Advice on disposal

It should be recycled and disposed based on your local legislation and regulations.

Contaminated packaging

Disposal in accordance with local regulations.

SECTION 14: TRANSPORT INFORMATION





Lithium-ion battery packs are regulated as Class 9 Miscellaneous Dangerous Goods (also known as “hazardous materials” in the United States) pursuant to the International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air, International Air Transport Association (IATA) Dangerous Goods Regulations, the International Maritime Dangerous Goods (IMDG) Code, European Agreements concerning the International Carriage of Dangerous Goods by Rail (RID) and Road (ADR), and applicable national regulations such as the USA’s hazardous materials regulations (see 49 CFR 173.185). These regulations contain very specific packaging, labeling, marking, and documentation requirements. The regulations also require that individuals involved in the preparation of dangerous goods for transport be trained and certified on proper package preparation, labeling, marking and preparing shipping documents.

The following provides information to trained and certified individuals to support proper shipping of this item.

Model	Nominal Voltage (DCV)	Nominal Capacity (mAh)	Power (Wh)	Weight
APCRBC174-LI	48	9000	432	8.3 Kg(3.96 kg are lithium batteries

- The battery pack meets the requirements of the test in the United Nations (UN) Manual of Tests and Criteria, Part III, subsection 38.3. UN38.3 Test Report Summary is available upon request.

- Original packaging is strong rigid outer packaging appropriate to its capacity and intended use. The packaging is UN specification.
- The International Air Transport Association (IATA) Dangerous Goods Regulations (64th DGR Manual of IATA Edition 2023, Special Provisions A88、A99、A154、A164、A183、A201、A206、A213、A331、A334 & A802 for UN3480 Lithium Ion Battery & Packing Instruction 965, Section IA is applied.) Lithium-ion batteries transport by air in accordance with PI965 at a state of charge (SOC) not to exceed 30 percent of rated design capacity.
- The International Maritime Dangerous Goods (IMDG) Code (Edition 2020, Special Provision、230、348、384, Packing Instruction P903 is applied.)
- The battery pack must not be packed in the same outer packaging, or placed in an overpack with, dangerous goods classified in Class 1 (except 1.4S), Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids) and Division 5.1 (oxidizers).

	DOT	TDG	IMDG	IATA
UN number	UN3480	UN3480	UN3480	UN3480
UN proper shipping name	LITHIUM ION BATTERIES	LITHIUM ION BATTERIES	LITHIUM ION BATTERIES	LITHIUM ION BATTERIES
Packing Label				
Environmental Hazards	None	None	None	None

<p>Additional Information</p>	<p>HAZMAT Bill of Lading (BOL) required via ground or rail; Dangerous Goods declaration via air or sea. Provide emergency response information by including this Safety Data sheet. If shipped via ground in the USA, an acceptable alternative is to write "ERG 147" on the Bill of Lading.</p>	<p>Declaration of Dangerous Goods (DGD) is required.</p>	<p>Declaration of Dangerous Goods (DGD) is required.</p>	<p>Declaration of Dangerous goods(DGD) is required. State of Charge (SOC) of the battery or cell must not exceed 30%. Maximum 35Kg (battery weight) net quantity per package. Statement on the (air) waybill - "Dangerous Goods as per attached DGD" or "Dangerous Goods as per attached shipper's declaration" and "cargo aircraft only" or CAO</p>
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SECTION 15: REGULATORY INFORMATION

Law information

- 《Dangerous Goods Regulations》
- 《Recommendations on the Transport of Dangerous Goods Model Regulations》
- 《International Maritime Dangerous Goods》
- 《List of dangerous goods》
- 《European Agreement concerning the International Carriage of Dangerous Goods by Road》

- 《Technical Instructions for the Safe Transport of Dangerous Goods》
- 《Classification and code of dangerous goods》
- 《Occupational Safety and Health Act》 (OSHA)
- 《Toxic Substance Control Act》 (TSCA)
- 《Consumer Product Safety Act》 (CPSA)
- 《Federal Environmental Pollution Control Act》 (FEPCA)
- 《The Oil Pollution Act》 (OPA)
- 《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》 (SARA)
- 《Resource Conservation and Recovery Act》 (RCRA)
- 《Safety Drinking Water Act》 (CWA)
- 《California Proposition 65》
- 《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and local laws.

SECTION 16: OTHER INFORMATION

This file is only effective to the batteries APCRBC174-LI (used for SMTL2200RM2UC, SMTL2200RM2UCNC, SMTL2200RMI2UC, SMTL2200RMI2UCNC, SMTL2K2RM2UCL, SMTL2K2RM2UCLNC, SMTL3000RM2UC, SMTL3000RM2UCNC, SMTL3000RMI2UC, SMTL3000RMI2UCNC, SMTL3KRM2UCL, SMTL3KRM2UCLNC UPS), provided by commissioner Schneider Electric IT Corporation, which manufactured by Schneider Electric IT USA, Schneider Electric IT Corp., The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users

Further Information USA

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.

Notice to reader:

Schneider Electric has prepared this Product Safety Datasheets to provide information on the referenced battery systems. Batteries are defined as articles under the GHS and exempt from GHS classification criteria (Section 1.3.2.1.1 of the GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.