APC SRTL3000RMXLI On-Line SRT Smart-UPS Specifications and Datasheet

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APC SRTL3000RMXLI On-Line SRT Smart-UPS

RECHARGEABLE LITHIUM ION BATTERY PACK (XBP48RM1U-LI, XBP48RM1U2-LI) PRODUCT SAFETY DATA SHEET

- **Version:** 1.7
- **Review date:** August 3, 2020

IDENTIFICATION

Product name:	RECHARGEABLE LI-ION BATTERY PACK
Other names:	LI-ION BATTERY/LI-ION ACCUMULATOR PACK, 585 – 625 Wh capacity battery pa ck
Model Numbers:	XBP48RM1U-LI, XBP48RM1U2-LI
Country:	USA/Canada
Product type:	Solid
Picture	

Identified uses

external lithium-Ion battery pack for use with APC by Schneider Electric Uninterruptible Power Supplies, specifically the Smart-UPS Online Product range and other designated compatible Uninterruptible Power Supplies (see list of applicable products in SECTION 16 : OTHER INFORMATION).

Manufacturer

Supplier/Manufacturer:	Schneider Electric IT USA (formerly APC by Schneider Electric, APC Sales and Service Corp.)
Address:	132 Fairgrounds Road West Kingston, RI 02892, USA / SEIT- CA, c/o 210080, PO Box 11728, SUCC. Centre-Ville, Montréal, QC, H3C 6P7132
Telephone:	+1 800-788-2208 or +1 401-789-5735
E-mail:	**http: //nam–en.apc.com/app/ask**
Website:	**www.APC.com**
Telecopy:	Not available.

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

HAZARDS IDENTIFICATION

OSHA/HCS status:

OSHA Hazard Communication: This material is not considered hazardous by the OSHA Hazard Communication Standard 29 CFR 1910.1200 as amended by the Globally Harmonized System of Classification and Labeling (GHS).

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

Classification of the substance or mixture:

Not classified.

GHS label elements:

- **Signal word:** No signal word.
- **Hazard statements:** No known significant effects or critical hazards.

Precautionary statements

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

Hazards not otherwise classified (HNOC)

- **Physical hazards not otherwise classified (PHNOC):** None known.
- **Health hazards not otherwise classified (HHNOC):** In case of cell damage, possible release of dangerous substances, and a flammable gas mixture.

COMPOSITION / INFORMATION ON INGREDIENTS

- **Substance/Mixture:** Mixture.
- **Other means of identification:** Not available.

CAS number/other identifiers

Part	Product/ingredient name	Identifiers	%	Classification OSHA HCS 2015
Cathode (positive electrode)	Lithium Metal Composite (Li(Ni,Mn,Co)O2)	Mixture	20-50	Eye, Skin, Respiratory Irritant
Anode (negative electrode)	Carbon, as Graphite	CAS: 7440-44-0	10-30	Eye, Skin, Respiratory Irritant
Electrolyte (proprietary)	LiPF6 salt + EC solvent	Mixture	12-17	Mixture: Flammable; Reactive; Sensitizer; Eye, Skin & Respiratory Irritant
	Polyvinylidene Fluoride (PVDF)	CAS: 24937-79-9	<5	Hot a hazardous substance or mixture.

	Aluminum Metal	CAS: 7429-90-5	2-10	Hot a hazardous substance or mixture.
	Copper Metal	CAS: 7440-50-8	2-10	Hot a hazardous substance or mixture.
Housing/Electronics	Steel Alloy/Plastic and Metal Parts	Mixture		Hot a hazardous substance or mixture.

Further Information

- **For information purposes:** Because of the cell structure the dangerous ingredients will not be available if used properly.
- Hazardous Material Content per Directive 2006/66/EC on batteries and accumulators
- **Mercury content:** Cadmium content:
- **Lead content:**
  - Hg < 0.1 mg/kg
  - Cd < 1 mg/kg
  - Pb < 10 mg/kg

FIRST AID MEASURES

General information

- The following first aid measures are required only in case of exposure to interior battery components after damage of the external battery casing.
- Undamaged, closed cells do not represent a danger to the health.

Description of necessary first aid measures

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical treatment by an eye specialist.
Inhalation	Ensure fresh air. Consult a physician.
Skin contact	In case of contact with skin wash off immediately with plenty of water. Consult a physician.
Ingestion	Drink plenty of water. Call a physician immediately.

Most important symptoms/effects, acute and delayed 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.

Over-exposure signs/symptoms

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.

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)

FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Cold water and dry powder in large amounts are applicable. Use metal fire extinction powder or dry sand if only a few cells are involved.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	May form hydrofluoric acid if the electrolyte comes into contact with water.
Hazards thermal decomposition products	In case of fire, the formation of the following flue gases cannot be excluded: Hydrogen fluoride (HF), Carbon monoxide, and carbon dioxide.
Special protective actions for fire-fighters	If possible, remove cell(s) from the firefighting area. If heated above 125°C, cell(s) can explode/vent. The cell is not flammable but internal organic material will burn if the cell is incinerated.
Special protective equipment for fire-fighters	Wear a self-contained breathing apparatus and protective suit.

ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel	Use personal protective clothing. Avoid contact with skin, eyes, and clothing. Avoid breathing fumes and gas.
For emergency res ponders	Take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For nonemergency personnel”.
Environmental precautions	Do not discharge into the drains/surface waters/groundwater.

Methods and materials for containment and cleaning up

- Pick up and send for disposal. Note that the battery pack may contain a charge a
- **Note:** See Section 1 for emergency contact information and Section 13 for waste disposal.

Protective measures	Put on appropriate personal protective equipment (see Section 8).
Advice on safe handling	Avoid short-circuiting the cell. Avoid mechanical damage to the cell. Do not ope n or disassemble. Protect against fire and explosion. Keep away from open flames, hot surfaces, and sources of ignition.
Conditions for safe storage , including any incompatibi lities	Storage at room temperature at approx. 20°C, 60% of the nominal capacity (OC V approx. 3.6 – 3.9 V). Keep in closed original container.

HANDLING AND STORAGE

Precautions for safe handling

Appropriate engineer ing controls	No specific precautions are necessary.
Environmental expos ure controls	No specific precautions are necessary.

EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

- **United States Occupational exposure limits:** None
- **Canada:** None

Appropriate engineering controls	No specific precautions are necessary.
Environmental exposure controls	No specific precautions are necessary.

Individual protection measures

Hygiene measures	When using do not eat, drink or smoke. Wash hands before breaks and after work.
Eye/face protection	No specific precautions were necessary.
Hand protection	No specific precautions are necessary.
Body protection	No specific precautions are necessary.
Other skin protection	No specific precautions are necessary.
Respiratory protection	No specific precautions are necessary.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Solid.
Color	Various.
Odor	Odorless.
Odor threshold	Not applicable.
pH	Not applicable.
Melting point	Not applicable.
Boiling point	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Lower and upper explosive (flammable) limits	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not applicable.
Solubility in water	Insoluble.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.

STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity is available for this product or its ingr edients.
Chemical stability	The product is stable.
Possibility of hazardous reac tions	Hazardous reactions will not occur.
Conditions to avoid	Keep away from open flames, hot surfaces, and sources of ignition. Do not pu ncture, crush, or incinerate.
Incompatible materials	No materials to be especially mentioned.
Hazardous decomposition pr oducts	In the case of open cells, there is the possibility of hydrofluoric acid and carbo n monoxide release.
Additional information	No decomposition if stored and applied as directed.

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	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.

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.

ECOLOGICAL INFORMATION

Toxicity	There is no data available.
Persistence and degradability	There is no data available.
Bioaccumulative potential	There is no data available.

Mobility in soil

Soil/water partition coefficient (KOC)	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.

DISPOSAL CONSIDERATIONS

Advice on disposal

For recycling consult the manufacturer.

Contaminated packaging

Disposal by local regulations.

TRANSPORT INFORMATION

Lithium-ion battery packs are regulated as Class 9 Miscellaneous Dangerous Goods (also known as “hazardous materials” in the United States) under 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 these trained and certified individuals to support their proper shipping of this battery pack.

- The battery pack meets the requirements of the test in the United Nations (UN) Manual of Tests and Criteria, Part III, sub-section 38.3. UN38.3 Report Summary on the battery pack is available online at APC.com.
- Original packaging is strong rigid outer packaging appropriate to its capacity and intended use. The packaging is UN specification. As a lithium-ion battery pack, the unit is subject to State of Charge Restrictions (SOC) and is provided by the factory at 30% SOC.
- The battery pack meets the requirements of Packing Instructions 965, section IA of the IATA regulation.
- The battery pack = 585 Wh – 625 Wh (nominal 613.2 Wh) capacity battery pack. The battery pack weighs 12 kg and contains between 4.0 kg and 4.12 kg (nominal 4.032 kg) of lithium-ion cells.
- 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).

	U.S. 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
Transport hazard class(es)				
Environmental hazards	None	None	None	None
Additional information	HAZMAT Bill of Lading (BOL) required via ground or rail; Dangerous Goods Declaration via air or sea.	Declaration of Dangerous Goods (DGD) is required.	Declaration of Dangerous Goods (DGD) is required.	A declaration of Dangerous Goods (DGD) is required. State of Charge (SoC) of the battery or cell must not exceed 30%.
	Provide emergency response information by including this Safety Data Sheet.			Maximum 35 kg (battery weight) net quantity per package.
				Statement on the
	If shipped via ground in the USA, an acceptable alternative is to write ”ERG 147” on the Bill of Lading.			(air)waybill – ”Dangerous Goods as per Attached DGD” or ”Dangerous Goods as per attached Shipper’s Declaration” and ”Cargo Aircraft Only” or
				CAO

ERG: 147

Special precautions for user	Not available.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

REGULATORY INFORMATION

U.S. Federal regulations	**TSCA 8(a) CDR Exempt/Partial exemption:** All chemical components are listed or exempt from listing **United States inventory (TSCA 8b**): All components are listed or exempted.
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Not available.
Clean Air Act Section 602 Class I Substances	Not available.
Clean Air Act Section 602 Class II Substances	Not available.
DEA List I Chemicals (Precursor Chemicals)	Not available.
DEA List II Chemicals (Precursor Chemicals)	Not available.

- **SARA 302/304**
  - **Composition/information** on ingredients
  - Not available. SARA 304 RQ: Not available.
- **SARA 311/312**
  - **Classification:** Not applicable.
  - Composition/information on ingredients. No products were found.
- **SARA 311/312**

  N ot applicable
- **SARA 313**

  This product contains no toxic chemicals subject to the supplier notification requirements of Section 313.

State regulations

Massachusetts	Not known
New York	Not known
New Jersey	Not known
Pennsylvania	Not known

California Prop. 65

No known California Proposition 65 material that requires WARNING language.

Canada – Canadian lists

Canadian NPRI	Not known
CEPA Toxic substances	Not known
Canada inventory	Not known.

OTHER INFORMATION

- **Initial Review:** March 25, 2017
- **Review date:** August 3, 2020
- **Version:** 1.7

Each product listed product consists of two separately boxed items – the uninterruptible power supply (UPS) that does not contain a battery and an external battery pack (XBP) that is the portion of the product subject to this requirement. The XBP48RM1U-LI and XBP48RM1U2-LI are substantially equivalent. List of products covered by this Safety Data Sheet :

Model Number	**Description**
SRTL1000RMXLI	UPS: SRT1000UXI-LI (contains no battery) XBP: XBP48RM1U-LI
SRTL1000RMXLI-NC	UPS: SRT1000UXI-NCLI (contains no battery) XBP: XBP48RM1U-LI
SRTL1500RMXLI	UPS: SRT1500UXI-LI (contains no battery) XBP: XBP48RM1U-LI
SRTL1500RMXLI-NC	UPS: SRT1500UXI-NCLI (contains no battery) XBP: XBP48RM1U-LI
SRTL2200RMXLI	UPS: SRT2200UXI-LI (contains no battery) XBP: XBP48RM1U2-LI
SRTL2200RMXLI-NC	UPS: SRT2200UXI-NCLI (contains no battery) XBP: XBP48RM1U2-LI
SRTL3000RMXLI	UPS: SRT3000UXI-LI (contains no battery) XBP: XBP48RM1U2-LI
SRTL3000RMXLI-NC	UPS: SRT3000UXI-NCLI (contains no battery) XBP: XBP48RM1U2-LI

Further Information USA

Data from sections 4 to 8, as well as 10 to 12, do not necessarily refer to the use and the regular handling of the product (in this sense consult package leaflet and expert information), but to the release of major amounts in case of accidents and irregularities. The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor’s safety data sheet.

Notice to the reader:

Schneider Electric has prepared this Product Safety Datasheet 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. The final determination of the 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.

Frequently Asked Questions

What are the default settings for the UPS, and how can I reset it to factory defaults?

The UPS comes with default settings, and you can reset it to factory defaults through the UPS settings. This can be useful if you want to start with a clean slate.

What is the purpose of the UPS Self-Test, and how often should I perform it?

The UPS Self-Test checks the UPS's internal components and battery. You can schedule regular self-tests through the UPS settings to ensure the UPS's reliability.

How do I turn on and off the UPS and connected equipment?

You can turn on and off the UPS and connected equipment using the POWER ON/OFF button on the display interface panel. Follow the prompts on the screen to configure the startup and shutdown settings.

What is the cold start feature, and how can I use it?

The cold start feature allows you to turn on the UPS and connected equipment using battery power when there is no input power. To perform a cold start, press and hold the POWER ON/OFF button until you hear a beep.

How long does it take for the XLBP batteries to charge, and can I expect full battery runtime capability during the initial charge period?

The XLBP batteries will charge to 90% capacity in the first three hours of normal operation. It's important to note that you should not expect full battery runtime capability during this initial charge period.

Can I connect additional external battery packs (XLBPs) to the UPS to extend runtime, and how many XLBPs can I connect?

Yes, you can connect additional external battery packs (XLBPs) to the UPS to extend runtime. The maximum number of XLBPs supported by the UPS is specified in the UPS settings, and it may vary depending on the UPS model.

What is the purpose of the SmartSlot on the rear panel of the UPS?

The SmartSlot on the rear panel of the UPS is used to connect optional management accessories. You can use this slot to expand the functionality of the UPS, such as adding network management capabilities.

How do I connect the UPS to the building utility power?

You can connect the UPS to the building utility power by using the AC inlet on the rear panel of the UPS. Ensure that the UPS is properly connected to a suitable power source.

What is the purpose of the Serial Com port on the rear panel, and how can I use it to communicate with the UPS?

The Serial Com port is used to communicate with the UPS. It can be used for native operating system communications or for software to communicate with the UPS. Ensure that you use interface kits supplied or approved by APC by Schneider Electric for compatibility.

How can I connect the UPS to a central Emergency Power Off (EPO) system, and what is its purpose?

The EPO terminal on the rear panel allows you to connect the UPS to a central Emergency Power Off (EPO) system. The EPO system can be used to remotely shut down the UPS in emergency situations.

What is the Network Management Card (NMC3), and where can I find details about its ports and functionality?

The Network Management Card (NMC3) is a card that provides network management capabilities for the UPS. Refer to the User Manual of the pre-installed NMC3 card for details about its ports and functionality.

How can I perform a UPS Self-Test, and why is it important?

You can perform a UPS Self-Test through the UPS settings. A UPS Self-Test checks the UPS's internal components and battery for proper functioning. It is important to schedule regular self-tests to ensure the UPS's reliability and performance.

Reference: [APC SRTL3000RMXLI On-Line SRT Smart-UPS Specifications and Datasheet-device.report]

References

- User Manual