


SECTION 1: IDENTIFICATION

Product identifier:

Product name:	LI-ION BATTERY PACK CONTAINED IN EQUIPMENT (SMTL750RM2UC, SMTL1000RM2UC, SMTL1500RM3UC)
Other names:	APC Smart-UPS Li-Ion, Short Depth 1500VA, 1000VA and 750VA, 120V with SmartConnect, 66 WH Li-ion Batteries Contained In Equipment
Model Numbers:	SMTL750RM2UC, SMTL1000RM2UC, SMTL1500RM3UC
Country:	EU
Product type:	Solid
Picture: SMTL750RM2UC, SMTL1000RM2UC, SMTL1500RM3UC	

Identified uses

Lithium-Ion battery pack contained in APC by Schneider Electric Uninterruptible Power Supplies

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, Montreal, 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

SECTION 2: HAZARDS IDENTIFICATION

Overview: This product contains a chemical substance. Safety information is given for exposure to the product as sold. Intended use of the product should not result in exposure to the chemical substance. This is a battery. In case of rupture, the below hazards exist.

CAS# 15365-14 (Lithium Iron Phosphate (LiFePO₄))

Classification according to GHS

Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS -- NONE

CAS# 7440-44-0 (Carbon, as Graphite)

Classification according to GHS

Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS -- NONE

CAS# 7429-90-5 (Aluminum)

Classification according to GHS

Substances and mixtures which, in contact with water, emit flammable gases (2, 3)

Specific target organ toxicity, repeated exposure (1) (Lung)

Hazardous to the aquatic environment, long-term hazard (4)

Label Elements

Hazard Images:



Hazard Statements:

H261 In contact with water releases flammable gas.

H372 Causes damage to organs through prolonged or repeated. exposure (Lung).

H413 May cause long lasting harmful effects to aquatic life.

Prevention:

P223 Do not allow contact with water.

P231 + P232 Handle and store contents under inert gas, protect with moisture.

P280 Wear protective gloves and clothing thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment. Response:

P302 + P335 + P334 IF ON SKIN: Brush off loose particles from skin and immerse in cool water.

P370 _ P378 In case of fire: use the appropriate media to put out the fire.

P314 Seek medical attention if you feel unwell. Storage:

P402 + P404 Store in a dry place. Store in a closed container.

LI-ION BATTERY PACK contained in Equipment (SMTL750RM2UC, SMTL1000RM2UC, SMTL1500RM3UC)

Version: 1.8

Date: February 14, 2019

Disposal:

P501 Contents handling to approved waste treatment plants.

Other Hazards

Physical and Chemical hazards: See Section 10

Human Health Hazards: See Section 11

Environmental Hazards: See Section 12

CAS# 7440-50-8 (Copper)**Classification according to GHS**

Sensitisation skin (1, 1A, 1B)

Specific target organ toxicity, single exposure (1) (digestive system)

Specific target organ toxicity, single exposure;

Respiratory tract irritation (30)

Label Elements**Hazard Images:****Signal word: Danger****Hazard Statements:**

H317 May cause allergic skin reaction.

H370 Causes damage to organs (digestive system).

H335 May cause respiratory irritation.

Prevention:

P260 Do not breathe dust, fume.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves, eye protection, face protection. P264 Wash skin and clothing thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area. Response:

P302+P352 IF ON SKIN: Wash with plenty of water.

P333 + P313 If skin irritation or rash occurs: Seek medical attention.

P321 Specific treatment (See additional emergency instructions).

P362 + P364 Take off contaminated clothing and wash it before reuse

P308 + P311 IF exposed or concerned: Call a POISON CONTROL CENTER.

P312 Call a POISON CENTER if you feel unwell.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatments.

Electrolyte (Main ingredient: Lithium hexafluorophosphate)**Classification according to GHS**

Flammable liquids (3),

Sensitisation skin (1, 1A, 1B)

LI-ION BATTERY PACK contained in Equipment (SMTL750RM2UC, SMTL1000RM2UC, SMTL1500RM3UC)

Version: 1.8

Date: February 14, 2019

Acute toxicity, Oral (Category 4),
Skin irritation (Category 2),
Eye irritation (Category 2A),
Specific target organ toxicity - single exposure (Category 3), Respiratory system
Specific target organ toxicity - repeated exposure, Inhalation (Category 1), Bone, Teeth,
Specific target organ toxicity - repeated exposure, Oral (Category 2), Kidney
Specific target organ toxicity, single exposure (1) (digestive system)
Specific target organ toxicity, single exposure;
Respiratory tract irritation (30)

Label Elements

Hazard Images:



Signal word: Danger

Hazard Statements:

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H372 Causes damage to organs (Bone, Teeth) through prolonged or repeated exposure if inhaled.
H373 May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ eye protection/ face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatments.

LI-ION BATTERY PACK contained in Equipment (SMTL750RM2UC, SMTL1000RM2UC, SMTL1500RM3UC)

Version: 1.8

Date: February 14, 2019

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

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

CAS number/other identifiers

Product/ingredient name	Identifiers	%	Classification OSHA HCS 2015
Lithium Iron Phosphate (LiFePO ₄)	CAS: 15365-14-7	25-35	Eye, Skin, Respiratory Irritant
Carbon, as Graphite	CAS: 7440-44-0	12-18	Eye, Skin, Respiratory Irritant
Aluminum Metal	CAS: 7429-90-5	3-7	Inert
Copper Metal	CAS: 7440-50-8	≥10 - <30	Inert
Electrolyte (*)	Mixture	12-17	Mixture: Flammable; Reactive; Sensitizer; Eye, Skin & Respiratory Irritant

Further Information

For information purposes:

(*) Main ingredients: Lithium hexafluorophosphate, organic carbonates

Because of the cell structure the dangerous ingredients will not be available if used properly.

Mercury content: Hg < 0.1mg/kg
 Cadmium content: Cd < 1mg/kg
 Lead content: Pb < 10mg/kg

SECTION 4: 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 eye specialist.
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Inhalation	Ensure of 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)

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Cold water and dry powder in large amount are applicable. Use metal fire extinction powder or dry sand if only few cells are involved.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	May form hydrofluoric acid if 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 firefighting area. If heated above 125°C, cell(s) can explode/vent. Cell is not flammable but internal organic material will burn if the cell is incinerated.
Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and protective suit.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

For non-emergency personnel	Use personal protective clothing. Avoid contact with skin, eyes and clothing. Avoid breathing fume and gas.
For emergency responders	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.

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 cell. Avoid mechanical damage of the cell. Do not open or disassemble. Advice on protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition.
Conditions for safe storage, including any incompatibilities	Storage at room temperature at approx. 20°C, 60% of the nominal capacity (OCV approx. 3.6 - 3.9 V). Keep in closed original container.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

Occupational exposure limits

No exposure limit value known

Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
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DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls	No specific precautions necessary.
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.
Eye/face protection	No specific precautions necessary.
Hand protection	No specific precautions necessary.
Body protection	No specific precautions necessary.
Other skin protection	No specific precautions necessary.
Respiratory protection	No specific precautions necessary.

SECTION 9: 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.

SECTION 10: STABILITY AND REACTIVITY

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

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	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.

SECTION 12: 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 (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

The information in this section contains generic advice and guidance. Consult local recycling or disposal service providers for further information.

13.1 Advice on disposal

Product

Methods of disposal	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
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Hazardous waste	This product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.
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Packaging

Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
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SECTION 14: TRANSPORT INFORMATION

Under IATA Dangerous Goods Regulations 60th Edition effective 1st January 2019 until 31st December 2019 accordance to IATA-Resolution 618 Annex "A" and in consultation with ICAO, Schneider Electric certifies that the referenced products are classified as follows:

	DOT	TDG	IMDG	IATA
UN number	UN3481	UN3481	UN3481	UN3481
UN proper shipping name	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT
Hazard Class	Class 9	Class 9	Class 9	Class 9
Packing Instruction & Label	PI966 Section II 	PI966 Section II 	PI966 Section II 	PI966 Section II 
Additional information	<p>Less than 100 WH (66 WH each)</p> <p>Note that the lithium ion battery packed with the product or shipped alone are in full compliance with Section II of PI 966 and can be shipped in any quantity by air, road or sea.</p> <p>Net weight of lithium battery per piece of equipment (per box)</p> <p>SMTL750RM2UC = 1.86 kg (2)</p> <p>SMTL1000RM2UC = 2.80 kg (3)</p> <p>SMTL1500RM3UC = 3.73 Kg (4)</p>			

AERG : 147

Note: Original packaging is strong rigid outer packaging equivalent to its capacity and intended use. As a lithium ion battery contained within equipment, the unit is not subject to State of Charge Restrictions (SOC). The battery

LI-ION BATTERY PACK contained in Equipment (SMTL750RM2UC, SMTL1000RM2UC, SMTL1500RM3UC)

Version: 1.8

Date: February 14, 2019

pack is contained within equipment that ensures its safe transport. UN38.3 Report on the pack elements are available upon request.

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

SECTION 15: REGULATORY INFORMATION

5.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)
Annex XIV – List of substances subject to authorization

Annex XIV	None of the components are listed.
Substances of very high concern	None of the components are listed.

Annex XVII – Restrictions on the manufacture placing on the market and use of certain dangerous substances, mixtures and articles

Annex XVII	Not applicable.
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Other EU regulations

Europe inventory	At least one component is not listed in EINECS but all such components are listed in ELINCS.
Seveso Directive	is product is not controlled under the Seveso Directive

15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: OTHER INFORMATION

Original release date: November 1st, 2017

Review date: February 14, 2019

Version: 1.8

Notice to reader:

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.

LI-ION BATTERY PACK contained in Equipment (SMTL750RM2UC, SMTL1000RM2UC, SMTL1500RM3UC)

Version: 1.8

Date: February 14, 2019