SECTION 1: Identification of the product and company

1.1 Product identifier

Article number	LFP3215KMUK
Product	Rechargeable lithium iron phosphate battery (LiFePO4)
Battery	LFP3215KMUK
Nominal rating	3.2 V | 1,500 mAh | 4.8 Wh

Chemical information describes the contained battery. Additional luminaire materials are not included.

1.2 Uses

Power supply for compatible emergency and safety lighting equipment. Use only with suitable charging electronics and in accordance with the product and equipment instructions. Do not open, dismantle or use outside the product specification.

1.3 Supplier details

RP-Technik GmbH
Hermann-Staudinger-Str. 10-16, 63110 Rodgau, Germany
Telephone: +49 (6106) 660 28 - 0
Email: product@rp-group.com | info@rp-group.com
Contact: Francisco Goerke

1.4 Emergency telephone

For an acute medical emergency or fire: **112 within the European Union**. After exposure to released contents, contact a physician or poison centre. The supplier telephone provides product information and is not a 24-hour emergency service.

SECTION 2: Hazards identification

2.1 Product hazards

The product is a sealed article. Exposure to its internal materials is not expected during intended use of an intact battery. Damage to the enclosure, short circuit, overcharging or excessive heat may cause leakage, rupture, ignition and release of hazardous gases.

Released electrolyte may cause skin and eye irritation or burns, respiratory irritation and injury if swallowed.

2.2 Labelling / 2.3 Other hazards

Avoid contact with leakage and smoke. Protect terminals against short circuit. Do not use or charge damaged, leaking or unusually hot batteries. Keep away from fire and heat. See section 14 for transport marking.

SECTION 3: Composition / information on ingredients

The following mass fractions describe internal battery ingredients. They remain enclosed in the casing when the product is undamaged.

Ingredient	CAS number	Mass fraction [%]
Lithium iron phosphate	15365-14-7	34.02
Graphite	7782-42-5	18.75
Ethylene carbonate	96-49-1	4.74
Ethyl methyl carbonate	623-53-0	7.10
Diethyl carbonate	105-58-8	1.18
Propylene carbonate	108-32-7	1.18
Dimethyl carbonate	616-38-6	2.37
Lithium hexafluorophosphate	21324-40-3	2.76
Carbon black	1333-86-4	5.70
Polyvinylidene fluoride (PVDF)	24937-79-9	0.71
Carboxymethyl cellulose	9000-11-7	0.04
Polypropylene	9003-07-0	4.85
Copper	7440-50-8	4.02
Aluminium	7429-90-5	3.80
Other	Not specified	8.78

Other ingredients: 8.78%; not separately identified. Additional luminaire and assembly materials are not quantified.

Product-specific concentration limits, M-factors and acute toxicity estimates (ATE) are not available.

SECTION 4: First aid measures

4.1 Description of first aid measures

The following measures concern exposure to released contents or gases. Protect the responder, stop further exposure and make this sheet available to medical personnel.

Exposure route	Action
Eyes	Immediately rinse with plenty of water. Remove contact lenses if easy and continue rinsing. Do not rub eyes. Obtain medical attention.
Skin	Remove contaminated clothing. Wash with water and soap for at least 15 minutes. Obtain medical attention.
Inhalation	Move to fresh air without endangering the responder. Obtain medical attention. Oxygen or assisted breathing must be provided only by appropriately trained personnel.
Ingestion of contents	Obtain medical attention immediately. Do not induce vomiting. Give nothing to eat or drink.

4.2 Symptoms / 4.3 Medical treatment

Eye, skin and respiratory irritation may occur; electrolyte contact may also cause burns. Treatment depends on the exposure route and medical assessment. No specific antidote information is available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide, dry chemical or foam. Select extinguishing media for the surrounding fire.

5.2 Specific hazards / 5.3 Advice for firefighters

Heated batteries may release flammable electrolyte vapours. Fire may produce irritating gases and cause the enclosure to rupture.

Responders require full protective clothing and self-contained breathing apparatus. Do not inhale smoke. Keep a safe distance and, where possible, prevent firefighting water from entering the environment.

SECTION 6: Accidental release measures

6.1 Personal precautions: Remove ignition sources, ventilate and stay upwind. Keep unauthorised persons away. Do not touch or walk through spilled material. Apply the protection measures in section 8.

6.2 Environmental precautions: Prevent released contents from entering soil, drains or waterways.
6.3 Clean-up: Stop leakage only if safe. Absorb with earth, sand or another non-combustible absorbent. Place leaking batteries and contaminated material in suitable labelled containers and protect terminals against short circuit.
6.4 References: Sections 5, 8 and 13.

SECTION 7: Handling and storage

7.1 Safe handling: Prevent short circuit, reverse polarity and mechanical damage. Do not open, crush, puncture, heat directly or throw into fire. Do not solder directly to cells. Use suitable charging electronics and follow the equipment instructions. Do not mix different types or new and used batteries. Avoid contact with leakage.
7.2 Storage: Store in a cool, dry, well-ventilated place away from heat, fire, prolonged sunlight, corrosive substances, food and drink. Retain original packaging and protect terminals. Keep out of reach of children. Numerical temperature limits are not established in this sheet; follow the product specification.
7.3 End use: See section 1.2.

SECTION 8: Exposure controls / personal protection

8.1 Control parameters: Occupational exposure limits for the whole battery have not been established. Exposure to internal ingredients is not expected during intended handling of an intact article. After release, apply current local exposure limits for the substances actually present.

8.2 Exposure controls: For leakage, provide ventilation, safety goggles, suitable chemical-resistant gloves and protective clothing; use an apron where necessary. Select gloves for the substances and contact duration. For large leaks or hazardous atmospheres, trained responders should use self-contained breathing apparatus. Remove contaminated clothing and wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Property	Information
Physical state / form	Solid, sealed battery
Colour	White cell casing
Odour	Odourless during normal use
Electrical rating	3.2 V | 1,500 mAh | 4.8 Wh
Water solubility	The sealed article does not mix with water; this does not describe the solubility of released electrolyte
Other properties	pH, melting and boiling point, flammability, explosive limits, flash point, auto-ignition and decomposition temperature, viscosity, vapour pressure, density, partition coefficient, vapour density and particle characteristics: no data for the whole article or not applicable to the sealed article.

9.2 Other information: Damage may release electrolyte. The solid casing does not imply that the contents are non-flammable.

SECTION 10: Stability and reactivity

10.1 Reactivity / 10.2 Stability: Stable under normal conditions when used as intended.
10.3 Hazardous reactions: Misuse may cause heating, leakage, rupture or ignition.
10.4 Conditions to avoid: Fire, sparks, heat, short circuit and mechanical damage; prevent prolonged exposure of internal contents to air and moisture.
10.5 Incompatible materials: Acids, bases and oxidising agents.
10.6 Decomposition products: Combustible electrolyte vapours and irritating or hazardous gases in a fire. See section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Exposure to internal ingredients is not expected during intended use of an intact battery. Released contents may irritate or burn skin, eyes and the respiratory tract. Ingestion may injure the throat.

Quantitative product-specific data for acute toxicity (LD50, LC50, ATE), sensitisation, mutagenicity, carcinogenicity, reproductive toxicity, specific target organ toxicity after repeated exposure and aspiration hazard are not available. A separate toxicological classification of the whole article has not been established.

11.2 Other hazards

Product-specific data on endocrine-disrupting properties and other particular health effects are not available.

SECTION 12: Ecological information

12.1 Toxicity: No product-specific data.
12.2 Persistence and degradability: No data.
12.3 Bioaccumulative potential: No data.
12.4 Mobility in soil: No data.
12.5 PBT and vPvB assessment: No product assessment.
12.6 Endocrine-disrupting properties: No data.
12.7 Other effects: An intact battery does not release its contents during intended use. Prevent environmental release and use controlled collection routes.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Use authorised battery collection or recycling routes in accordance with national and local regulations. Insulate terminals. Do not incinerate or place in unsorted waste. Collect contaminated packaging, absorbents and leakage residues separately for appropriate treatment. Do not release electrolyte into drains or the environment.

SECTION 14: Transport information

Shipping arrangement	14.1 UN number / 14.2 Proper shipping name
Battery separately	UN 3480 - LITHIUM ION BATTERIES
Installed in equipment	UN 3481 - LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT
Packed with equipment	UN 3481 - LITHIUM ION BATTERIES PACKED WITH EQUIPMENT

14.3 Class: 9. **14.4 Packing group:** Not assigned.
14.5 Environmental hazards: Not identified as a marine pollutant on the available data; this does not imply absence of hazards following leakage.

14.6 Precautions: Protect against short circuit, damage and movement in the package. Apply current ADR/RID, IMDG and ICAO/IATA rules for the transport mode. Nominal energy is 4.8 Wh. Small-cell/battery provisions, such as special provision 188, also depend on UN 38.3 testing, a quality management system, packaging, marking and other conditions. The Wh rating alone does not provide automatic exemption.

Air transport: PI 965 for UN 3480, PI 966 for packed with equipment and PI 967 for contained in equipment. UN 3480: state of charge (SoC) no greater than 30%; generally cargo aircraft only, subject to exceptions requiring the relevant approvals. From 2026, PI 966 requires SoC no greater than 30% for cells/batteries exceeding 2.7 Wh; deviations require the relevant approvals and Section I. For PI 967, SoC no greater than 30% or indicated capacity no greater than 25% is recommended. Check the applicable instruction section, quantity limits, marking and operator requirements.

Damaged or defective batteries require separate transport conditions; do not apply routine provisions for serviceable products. Verify availability of the applicable UN 38.3 test summary before shipping. This sheet is not a test certificate or a transport approval.
14.7 Maritime transport in bulk according to IMO instruments: Not intended.

SECTION 15: Regulatory information

15.1 Regulations: Safety information for a sealed article arranged in 16 sections. REACH (EC) No 1907/2006 and CLP (EC) No 1272/2008 apply within the scope relevant to the product and its ingredients. Applicable battery, waste and transport regulations must be observed. This sheet does not provide a blanket exemption or certification of compliance.
15.2 Chemical safety assessment: Not performed for the whole article.

SECTION 16: Other information

Revision 1.0 | Date: 14.10.2026 | Language: English. Update: RP-GROUP layout and transport information; English counterpart to the Polish version. This information supports safe product handling and does not replace the product instructions or specification.

Abbreviations: CAS - substance identifier; CLP - classification, labelling and packaging; ATE - acute toxicity estimate; PBT/vPvB - persistence and bioaccumulation; ADR/RID - road/rail transport; IMDG - maritime transport; ICAO/IATA - air transport; PI - packing instruction; SoC - state of charge; UN 38.3 - lithium battery transport testing.