Safety data sheet
according to UK REACH

Printing date 28.08.2025 Version number 1 Revision: 28.08.2025

1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

· **Trade name: VALO™ Cordless 400mAh Rechargeable Battery**

· **Article number:**
SDS 435-001.02R01, 1007761, 13679, 13680, 13871, 13872, 13872-P2, 13874, 13875, 14191, 14192, 14377, 5941-D, 5942-D, 5963, 5963-JP, 5972-D

· **Relevant identified uses of the substance or mixture and uses advised against**
RCR123A Rechargeable Lithium Iron Phosphate Battery

· **Application of the substance / the mixture** RCR123A Rechargeable Lithium Iron Phosphate Battery

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**
Manufactured by SHENZHEN RYDER ELECTRONICS CO., LTD for:
Ultradent Products Inc.
505 W. Ultradent Drive (10200 S)
South Jordan, UT 84095-3942
USA
onlineordersupport@ultradent.com
(800) 552-5512

EC Responsible Person
Ultradent Products GmbH
Am Westhover Berg 30
51149 Cologne Germany
Email: infoDE@ultradent.com
Office Phone: +49(0)2203-35-92-0

· **Further information obtainable from:** Customer Service

· **Emergency telephone number:**
CHEMTREC (NORTH AMERICA) : +1 (800) 424-9300
(INTERNATIONAL) : +(703) 527-3887

2 Hazards identification

· **Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements**
H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P273 Avoid release to the environment.

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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

· **Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

	Activated Carbon substance with a Community workplace exposure limit	≥0-≤25%
CAS: 7440-50-8 EINECS: 231-159-6	Copper Foil Aquatic Chronic 2, H411	≥2.5-<25%
CAS: 7429-90-5 EINECS: 231-072-3	Aluminum Foil Flam. Sol. 1, H228; Water-react. 2, H261	≥0-≤10%
CAS: 21324-40-3 EINECS: 244-334-7	Lithium Hexaflurophosphate Acute Tox. 3, H311; Acute Tox. 4, H302	≥0-≤10%
CAS: 1120-71-4 EINECS: 214-317-9	Propane Sultone (PS) Carc. 1B, H350; Acute Tox. 4, H302; Acute Tox. 4, H312 Specific concentration limit: Carc. 1B; H350: C ≥ 0.01 %	≥0.01-≤10%

· **SVHC**

1120-71-4	Propane Sultone (PS)

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· **Description of first aid measures**
· **General information:** No special measures required.
· **After inhalation:**
If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.
· **After skin contact:**
If skin contact with contents of an open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
· **After eye contact:**
If eye contact with contents of an open attery occurs, flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
· **After swallowing:**
If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2-8 oz.) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
· **For safety reasons unsuitable extinguishing agents:**
Water
Carbon dioxide
· **Special hazards arising from the substance or mixture**
Carbon monoxide (CO)
Carbon Dioxide
lithium oxide fumes
· **Advice for firefighters:**
· **Protective equipment:** Wear self-contained respiratory protective device.
· **Additional information** Cell may vent when subjected to excessive heat-exposing battery contents.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
· **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery and to bury the discharged battery in the soil.
· **Methods and material for containment and cleaning up:**
If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put it in a steel can. The preferred response is to leave the area and allow the battery to coo and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Precautions for safe handling:**
The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity. The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charged the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery or immerse in liquids.
Use only in well ventilated areas.
Keep away from heat and direct sunlight.
Do not smoke.
Avoid damaging or rupturing battery.
· **Information about fire - and explosion protection:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Store away from oxidising agents.

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· **Further information about storage conditions:**
See product labelling.
Store in cool, dry conditions in well - sealed receptacles.
· **Specific end use(s)** RCR123A Rechargeable Lithium Iron Phosphate Battery

8 Exposure controls/personal protection

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
Activated Carbon	
WEL	Long-term value: 10* 4** mg/m³ *inhalable dust **respirable
7440-50-8 Copper Foil	
WEL	Short-term value: 2** mg/m³ Long-term value: 0.2* 1** mg/m³ *fume **dusts and mists (as Cu)
7429-90-5 Aluminum Foil	
WEL	Long-term value: 10* 4** mg/m³ *inhalable dust ** respirable dust

· **Additional information:**
Personal Protection is recommended for venting battery: Respiratory protection, protective gloves, protective clothing and safety glasses with side shields.

· **Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as personal protective equipment**
· **Respiratory protection:** Not required under normal conditions.
· **Hand protection**
Not necessary under normal conditions,
Hand protection: Wear neoprene or natural rubber material gloves if handling an open or leaking battery.
· **Material of gloves**
The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye/face protection**
Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.
· **Body protection:** Not necessary under normal conditions,.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**

· **Physical state**	Solid
· **Colour:**	Silver-coloured
· **Odour:**	If leaking, smells of medical ether.
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Undetermined.

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· **Boiling point or initial boiling point and boiling range**	Undetermined.
· **Flammability**	Contact with water liberates extremely flammable gases.
· **Lower and upper explosion limit**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Flash point:**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **pH**	Not applicable.
· **Viscosity:**	
· **Kinematic viscosity**	Not applicable.
· **Dynamic:**	Not applicable.
· **Solubility**	
· **water:**	Insoluble.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure:**	Not applicable.
· **Density and/or relative density**	
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Vapour density**	Not applicable.

· **Other information**	
· **Appearance:**	
· **Form:**	Cylindrical Solid
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Change in condition**	
· **Evaporation rate**	Not applicable.

· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Void
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

10 Stability and reactivity

· **Reactivity** The product is stable under normal conditions.

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· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
Heat above 70 C or incinerate. Derform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.
· **Possibility of hazardous reactions:**
Danger of explosion.
Danger of bursting.
Contact with water releases flammable gases.
· **Conditions to avoid:**
(e.g. static discharge, shock or vibration)
Do not subject the rechargeable battery to mechanical shock.
Vibration encountered during transportation does not cause leakage, fire or explosion.
Do not disassemble, crush, short or install with incorrect polarity. Avoid mechanical or electrical abuse.
· **Incompatible materials:**
Oxidizing Agents
Halogenated hydrocarbons
Mineral Acids
Alkalis
Water
Strong Oxidizing Agents
· **Hazardous decomposition products:**
Toxic fumes if burned or exposed to fire.
May form peroxides

11 Toxicological information

· **Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
ATE (Acute Toxicity Estimates)		
Oral	LD50	6,250-50,000 mg/kg
Dermal	LD50	5,156-30,000 mg/kg

· **Primary irritant effect:**
· **Skin corrosion/irritation**
Based on available data, the classification criteria are not met.
Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **Additional toxicological information:**
Irritating effects only occurs if battery ruptures. In the event of internal contents, vapour fumes may be irritating to the eyes and skin. Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to severe irritation, burning and dryness of the skin may occur. Target organs nerves, liver and kidneys.

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· **Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** Slowly bio-degradeable
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation**
Dispose of contents/container in accordance with international, federal, state, and local regulations.

· **Uncleaned packaging:**
· **Recommendation:**
Do not incinerate, or subject cells to temperature in excess of 70 degress C. Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

14 Transport information

· **UN number or ID number**	
· **ADR, IMDG, IATA**	UN3480
· **UN proper shipping name**	
· **ADR**	3480 LITHIUM ION BATTERIES
· **IMDG, IATA**	LITHIUM ION BATTERIES
· **Transport hazard class(es)**	
· **ADR, IMDG, IATA**	
· **Class**	9 Miscellaneous dangerous substances and articles.
· **Label**	9A
· **Packing group**	
· **ADR, IMDG, IATA**	not regulated
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Warning: Miscellaneous dangerous substances and articles.

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· **Hazard identification number (Kemler code):**	-
· **EMS Number:**	F-A,S-I
· **Stowage Category**	A
· **Stowage Code**	SW19 For batteries transported in accordance with SP 376 or SP 377 Category C, unless transported on a short international voyage.
· **Maritime transport in bulk according to IMO instruments**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	0
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **Transport category**	2
· **Tunnel restriction code**	E
· **IMDG**	
· **Limited quantities (LQ)**	0
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **UN "Model Regulation":**	UN 3480 LITHIUM ION BATTERIES

15 Regulatory information

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

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1120-71-4	Propane Sultone (PS)

· **Poisons Act**

· **Regulated explosives precursors**

None of the ingredients is listed.

· **Regulated poisons**

None of the ingredients is listed.

· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

None of the ingredients is listed.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **National regulations:**

· **Substances of very high concern (SVHC) according to UK REACH**

1120-71-4	Propane Sultone (PS)

· **Chemical safety assessment:** A chemical safety assessment has not been carried out.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases from Section 3**
H228 Flammable solid.
H261 In contact with water releases flammable gases.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H350 May cause cancer.
H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Environmental, Health, and Safety
· **Contact:** Customer Service
· **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
ATE: Acute toxicity estimate values
Flam. Sol. 1: Flammable solids – Category 1
Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Carc. 1B: Carcinogenicity – Category 1B
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3