

# Safety Data Sheet

## Round cell batteries CR2

Issued: 04/03/2021  
Version: 1.0.0

### SECTION 1: Identification of the substance/preparation and of the company/undertaking

#### 1.1. Product identifier

**Trade name:** Round cell batteries CR2  
**Synonyms:** JCCR2  
JCCR2-40

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended uses:** According to REACH, the product is an article and is consequently not subject to the requirement for a safety data sheet.  
**AC:** Electrical batteries and accumulators (AC3)

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

**Company:** LAKUDA ApS  
**Address:** Spettrupvej 1-3  
**Zip code:** 8722  
**City:** Hedensted  
**Country:** DENMARK  
**E-mail:** sales@lakuda.dk  
**Phone:** 7640 7010

#### 1.4. Emergency Telephone Number

Members of the public: 111 (NHS 111 (Scotland: NHS 24))

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**CLP-classification:** The product shall not be classified as hazardous according to the classification and labeling rules for substance and mixtures.

**Most serious harmful effects:** According to REACH, the product is an article and is consequently not subject to the requirement for a safety data sheet. The intact article does not pose any danger. This safety data sheet describes the danger of the mixture inside the article. Contact is only possible if the article is not intact. The mixture inside the article has the following hazardous characteristics:  
  
Causes skin irritation.  
Causes serious eye damage.

#### 2.2. Label elements

The product shall not be classified as hazardous according to the classification and labeling rules for substance and mixtures.

##### Supplemental information

According to REACH the product is an article and thus not subject to the requirements regarding labelling.

#### 2.3. Other hazards

Assessment to determine PBT and vPvB has not been made.

# Safety Data Sheet

## Round cell batteries CR2

Issued: 04/03/2021  
Version: 1.0.0

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

Substance	CAS No	EC No	REACH Reg. No.	Concentration	Notes	CLP-classification
manganese dioxide	1313-13-9	215-202-6		33 %		Acute Tox. 4;H302 Acute Tox. 4;H332
dimethyl ether	115-10-6	204-065-8		6.25 %		Flam. Gas 1A;H220
propylene carbonate	108-32-7	203-572-1		6.25 %		Eye Irrit. 2;H319
lithium	7439-93-2	231-102-5		2.4 %		Water-react. 1;H260 Skin Corr. 1B;H314
aluminium powder (stabilised)	7429-90-5	231-072-3		1.4 %		Flam. Sol. 1;H228 Water-react. 2;H261
Lithium perchlorate	7791-03-9	232-237-2		1.4 %		Ox. Sol. 1;H271 Acute Tox. 4;H302 Skin Corr. 1B;H314 STOT RE 2;H373

Please see section 16 for the full text of H-phrases.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation:</b>	Seek fresh air. Seek medical advice in case of persistent discomfort.
<b>Ingestion:</b>	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Do not induce vomiting. Seek medical advice in case of discomfort.
<b>Skin contact:</b>	Immediately remove contaminated clothing. Wash the skin thoroughly with water and continue washing for a long time. Seek medical advice in case of persistent discomfort.
<b>Eye contact:</b>	Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice immediately. Continue flushing until medical attention is obtained.
<b>General:</b>	When obtaining medical advice, show the safety data sheet or label.

#### 4.2. Most important symptoms and effects, both acute and delayed

Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight. Irritating to skin - may cause reddening.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms. No special immediate treatment required.

### SECTION 5: Fire-fighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media:</b>	Extinguish with powder, foam, carbon dioxide or water mist. Use water or water mist to cool non-ignited stock.
<b>Unsuitable extinguishing media:</b>	Do not use water stream, as it may spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous fumes are formed in fire conditions.

# Safety Data Sheet

## Round cell batteries CR2

Issued: 04/03/2021  
Version: 1.0.0

### 5.3. Advice for fire-fighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:** Wear gloves. Wear safety goggles if there is a risk of eye splash. Provide good ventilation.

**For emergency responders:** In addition to the above: Protective suit equivalent to EN 368, type 3, is recommended.

### 6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water.

### 6.3. Methods and material for containment and cleaning up

Wipe up minor spills with a cloth. Rinse with water.

### 6.4. Reference to other sections

See section 8 for type of protective equipment.

See section 13 for instructions on disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin and eyes. Running water and eye wash equipment should be available. Wash hands before breaks, before using restroom facilities, and at the end of work.

### 7.2. Conditions for safe storage, including any incompatibilities

Do not expose to heat (e.g. sunlight). Storage temperature: 15 - 25 °C. Store in a dry area.

### 7.3. Specific end use(s)

None.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limit

Substance name	Time period	ppm	mg/m <sup>3</sup>	fiber/cm <sup>3</sup>	Comments	Remarks
dimethyl ether	8h	400	766			
dimethyl ether	15m	500	958			

#### Measuring methods:

Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.

#### Legal basis:

EH40/2005 Workplace exposure limits. Last amended January 2020.

### 8.2. Exposure controls

# Safety Data Sheet

## Round cell batteries CR2

Issued: 04/03/2021  
Version: 1.0.0

**Appropriate engineering controls:** Wear the personal protective equipment specified below.

**Personal protective equipment, eye/face protection:** Wear safety goggles if there is a risk of eye splash. Eye protection must conform to EN 166.

**Personal protective equipment, hand protection:** Wear gloves. Type of material: Neoprene rubber/ Nitrile rubber/ Latex. Gloves must conform to EN 374. Breakthrough time has not been determined for the product. Change gloves often.

**Personal protective equipment, respiratory protection:** Not required.

**Environmental exposure controls:** Ensure compliance with local regulations for emissions.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid
Colour	N/A
Odour	N/A
Solubility	N/A
Explosive properties	N/A
Oxidising properties	N/A

Parameter	Value/unit	Remarks
pH (solution for use)	No data	
pH (concentrate)	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	No data	
Flash Point	No data	
Evaporation rate	No data	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	No data	
Vapour pressure	No data	
Vapour density	No data	
Relative density	No data	
Partition coefficient n-octanol/water	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
Viscosity	No data	
Odour threshold	No data	

#### 9.2 Other information

**Other Information:** None.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No known data.

# Safety Data Sheet

## Round cell batteries CR2

Issued: 04/03/2021  
Version: 1.0.0

### 10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Do not expose to heat (e.g. sunlight). Avoid contact with moisture and water.

### 10.5. Incompatible materials

Strong oxidisers.

### 10.6. Hazardous decomposition products

None, if stored at the recommended storage conditions. Product decomposes in fire conditions or when heated to high temperatures, and inflammable and toxic gases may be released.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<b>Acute toxicity - oral:</b>	The product does not have to be classified. Test data are not available.
<b>Acute toxicity - dermal:</b>	The product does not have to be classified. Test data are not available.
<b>Acute toxicity - inhalation:</b>	The product does not have to be classified. Test data are not available.
<b>Skin corrosion/irritation:</b>	Irritating to skin - may cause reddening.
<b>Serious eye damage/eye irritation:</b>	Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight.
<b>Respiratory sensitisation or skin sensitisation:</b>	The product does not have to be classified. Test data are not available.
<b>Germ cell mutagenicity:</b>	The product does not have to be classified. Test data are not available.
<b>Carcinogenic properties:</b>	The product does not have to be classified. Test data are not available.
<b>Reproductive toxicity:</b>	The product does not have to be classified. Test data are not available.
<b>Single STOT exposure:</b>	The product does not have to be classified. Test data are not available.
<b>Repeated STOT exposure:</b>	The product does not have to be classified. Test data are not available.
<b>Aspiration hazard:</b>	The product does not have to be classified. Test data are not available.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product does not have to be classified. Test data are not available.

### 12.2. Persistence and degradability

Test data are not available.

# Safety Data Sheet

## Round cell batteries CR2

Issued: 04/03/2021  
Version: 1.0.0

### 12.3. Bioaccumulative potential

Test data are not available.

### 12.4. Mobility in soil

Test data are not available.

### 12.5. Results of PBT and vPvB assessment

No assessment has been made.

### 12.6. Other adverse effects

None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste (Dir. 2008/98/EU). Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

**Category of waste:** EWC code: Depends on line of business and use, for instance 16 06 05 other batteries and accumulators

## SECTION 14: Transport information

Cells covered in this MSDS are exempt SP188 via ADR and IMDG.

### Land transport (ADR/RID)

14.1. UN-No.:	3090	14.4. Packing group:	
14.2. UN proper shipping name:	LITHIUM METAL BATTERIES	14.5. Environmental hazards:	The product should not be labelled as an environmental hazard (symbol: fish and tree).
<u>Can be shipped under SP188 via ADR and IMDG</u>	9		
14.3. Transport hazard class(es):			
Hazard label(s):	9A		
Hazard identification number:		Tunnel restriction code:	E

### Inland water ways transport (ADN)

14.1. UN-No.:	3090	14.4. Packing group:	
14.2. UN proper shipping name:	LITHIUM METAL BATTERIES	14.5. Environmental hazards:	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	9		
Hazard label(s):	9A		
Transport in tank vessels:			

### Sea transport (IMDG)

14.1. UN-No.:	3090	14.4. Packing group:	
14.2. UN proper shipping name:	LITHIUM METAL BATTERIES	14.5. Environmental hazards:	The product is not a Marine Pollutant (MP).
14.3. Transport hazard class(es):	9	Environmental Hazardous Substance Name(s):	

# **Safety Data Sheet**

## **Round cell batteries CR2**

**Hazard label(s):** 9A

# Safety Data Sheet

## Round cell batteries CR2

Issued: 04/03/2021  
Version: 1.0.0

EmS: F-A, S-I  
IMDG Code segregation group: - None -

### Air transport (ICAO-TI / IATA-DGR)

14.1. UN-No.:	3090	14.4. Packing group:	
14.2. UN proper shipping name:	LITHIUM METAL BATTERIES	14.5. Environmental hazards:	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	9		
Hazard label(s):	9A		
14.6. Special precautions for user			

None.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Special Provisions: None.

### 15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

## SECTION 16: Other information

### Version history and indication of changes

Version	Revision date	Responsible	Changes
1.0.0	04/03/2021	KDCL/Joblife a/s	

**Abbreviations:**  
PBT: Persistent, Bioaccumulative and Toxic  
STOT: Specific Target Organ Toxicity  
vPvB: Very Persistent and Very Bioaccumulative

**Other Information:** This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of safety data sheets in accordance with 1907/2006/EC (REACH) as subsequently changed.

**Training advice:** A thorough knowledge of this safety data sheet should be a prerequisite condition.

**Classification method:** Calculation based on the hazards of the known components.

### List of relevant H-statements

H220	Extremely flammable gas.
H228	Flammable solid.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H261	In contact with water releases flammable gases.
H271	May cause fire or explosion, strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.



# Safety Data Sheet

## Round cell batteries CR2

Issued: 04/03/2021  
Version: 1.0.0

H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.

**Quality assurance of SDS:** Joblife a/s (KDCL)

### SDS is prepared by

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