

## SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1. Product identifier:**

KF14559 - Q-Connect Lithium Coin Cells, CR2025|3V, Pack 4  
KF15036 - Q-Connect Lithium Coin Cells, CR2032|3V, Pack 4

**1.2. Relevant identified uses of the mixture and uses advised against:**

Lithium coin cells. For use in minor electronic devices.

In accordance with Regulation (EC) No 1907/2006 (REACH), the product is considered an article, for which a safety data sheet is not required. The following information is only indicative in order to ensure safe use of the product.

**1.3. Details of the supplier of the safety data sheet:**

Information about the distributor/importer:

**MediaRange GmbH**

Zum Quellenpark 29, 65812 Bad Soden am Taunus

Germany

Tel.: +49 (0) 6196 523 8180

1.3.1. Responsible person: Scott Krisztinkovics  
E-mail: [scott@mediarange.de](mailto:scott@mediarange.de)

1.4. **Emergency telephone number:** +49 (0) 6196 – 5238186 / Monday – Friday 09:00 – 16:00

### SECTION 2: HAZARDS IDENTIFICATION

**2.1. Classification of the mixture:**

Classification according to Regulation (EC) No 1272/2008 (CLP):

**Not considered as hazardous mixture.**

**Hazard statements:** Not applicable for the finished product as an article.

**2.2. Label elements:**

**Hazard statements:** Not applicable for the finished product as an article.

**Precautionary statements:** Not applicable for the finished product as an article.

**2.3. Other hazards:**

The product has no other known specific hazards for human or environment.

Results of PBT and vPvB assessment: No data available.

Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1. Substances:**

Not applicable.

**3.2. Mixtures:**

Hazardous ingredients:

Description	CAS number	EC number / ECHA list number	REACH registration number	Conc. (%)	Classification according to Regulation (EC) No 1272/2008 (CLP)		
					Pictogram, signal word code(s)	Hazard class and category code(s)	Hazard statement code(s)

<b>Manganese dioxide</b> Index number: 025-001-00-3	1313-13-9	215-202-6	-	27.6	GHS07 Warning	Acute Tox. 4 Acute Tox. 4	H332 H302
<b>Carbon black</b>	1333-86-4	215-609-9	-	0.3	-	not classified	-
<b>1,2-Dimethoxy-ethane</b> Index number: 603-031-00-3	110-71-4	203-794-9	-	4.2	GHS02 GHS08 GHS07 Danger	Flam. Liq. 2 Repr. 1B Acute Tox. 4	H225 H360FD H332 EUH019
<b>Teflon (PTFE)</b>	9002-84-0	618-337-2	-	0.2	-	not classified	-
<b>Graphite</b>	7782-42-5	231-955-3	-	2.6	-	not classified	-
<b>Lithium</b> Index number: 003-001-00-4	7439-93-2	231-102-5	-	2.8	GHS02 GHS05 Danger	Water-react. 1 Skin Corr. 1B	H260 H314 EUH014
<b>Lithium perchlorate</b>	7791-03-9	232-237-2	-	2.1	-	not classified	-
<b>Stainless steel</b>	7439-89-6	231-096-4	-	52.0	-	not classified	-
<b>Propylene carbonate</b> Index number: 607-194-00-1	108-32-7	203-572-1	-	4.4	GHS07 Warning	Eye Irrit. 2	H319

For the full text of hazard statements, see Section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures:

**General information:** Under normal circumstances, the lithium coin cells are not hazardous in case of eye and skin contact.

#### INGESTION:

Measures:

- Rinse mouth with water if the affected person is conscious.
- Call a physician.

#### INHALATION:

Measures:

- Immediately take the victim into fresh air.
- If breathing stops, provide artificial respiration.
- In case of breathing difficulty, supply oxygen.

#### SKIN CONTACT:

Measures:

- Remove contaminated clothes.
- Immediately rinse skin with soap and plenty of water for 15 minutes.
- Get medical help.

#### EYE CONTACT:

Measures:

- Rinse eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.
- Get medical help.

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

No acute and delayed symptoms and effects known.

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

No special treatment needed; treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media:

#### 5.1.1. Suitable extinguishing media:

Copious amounts of cold water are an effective extinguishing medium for lithium batteries.

#### 5.1.2. Unsuitable extinguishing media:

Do not use warm or hot water.

Do not use halon type extinguishing agent.

- 5.2. **Special hazards arising from the substance or mixture:**  
In case of fire, toxic fumes, gases, vapours and other combustion products (carbon monoxide, carbon dioxide, hydrogen fluoride, phosphorous fluoride) may be formed; the inhalation of such combustion products can have serious adverse effects on health.
- 5.3. **Advice for firefighters:**  
Wear full protective clothing and self-contained breathing apparatus.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. **Personal precautions, protective equipment and emergency procedures:**
- 6.1.1. **For non-emergency personnel:**  
Allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.
- 6.1.2. **For emergency responders:**  
Ventilate the contaminated area.
- 6.2. **Environmental precautions:**  
Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.
- 6.3. **Methods and material for containment and cleaning up:**  
If leakage of the batteries occurs, absorb liquid with sand, earth or other inert absorbent material.  
Ventilate the contaminated area.  
Damaged batteries that are not hot should be placed in sealed plastic bags or containers.
- 6.4. **Reference to other sections:**  
For further and detailed information see Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

- 7.1. **Precautions for safe handling:**  
Observe conventional hygiene precautions.  
Do not eat, drink, or smoke in work areas.  
Wash hands with soap and water before eating and drinking.  
**Technical measures:**  
No special measures required.  
**Precautions against fire and explosion:**  
Ground containers when transferring liquid to prevent the accumulation of static electricity.  
Batteries may explode or cause burns if disassembled, crushed or exposed to fire or high temperatures.  
Do not short circuit or install with incorrect polarity.
- 7.2. **Conditions for safe storage, including any incompatibilities:**  
**Technical measures and storage condition:**  
Store in a cool, dry and well-ventilated place.  
Keep away from heat.  
Avoid long-term exposure to sunlight.  
**Incompatible materials:** See Section 10.5  
**Packaging material:** No special prescriptions.
- 7.3. **Specific end use(s):**  
No specific instructions available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. **Control parameters:**

**Occupational exposure limit values** (Commission Directive (EC) No 2000/39 of 8 June 2000):  
The components of the mixture are not regulated with exposure limit value.

DNEL values		Oral exposure		Dermal exposure		Inhalative exposure	
		Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)
Consumer	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data
Worker	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data

PNEC values		
Compartment	Value	Note(s)
Freshwater	no data	no notes
Marine water	no data	no notes
Freshwater sediment	no data	no notes
Marine water sediment	no data	no notes
Sewage Treatment Plant (STP)	no data	no notes
Intermittent release	no data	no notes
Secondary poisoning	no data	no notes
Soil	no data	no notes

## 8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

### 8.2.1. Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. No engineering controls are required for handling undamaged batteries.

### 8.2.2. Individual protection measures, such as personal protective equipment:

The information regarding personal protective equipment is only for informative purposes. A complete risk assessment is required before the use of the product for the determination of the appropriate personal protective equipment, taking local circumstances into account.

1. **Eye/face protection:** In case of handling damaged batteries, use safety glasses.
2. **Skin protection:**
  - a. **Hand protection:** In case of handling damaged batteries, use chemical-resistant protective gloves.
  - b. **Other:** Use appropriate protective clothing.
3. **Respiratory protection:** Use appropriate respiratory protective device.
4. **Thermal hazards:** No thermal hazards known.

### 8.2.3. Environmental exposure controls:

No specific prescription.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions, an expert's advice is necessary before deciding upon further protective measures.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Parameter	Value / Test method / Remarks
1. Physical state	button shape
2. Colour	silver
3. Odour, odour threshold	odourless
4. Melting point/freezing point	no data*
5. Boiling point or initial boiling point and boiling range	no data*
6. Flammability	no data*
7. Lower and upper explosion limit	no data*
8. Flash point	no data*
9. Auto-ignition temperature	no data*
10. Decomposition temperature	no data*
11. pH	no data*
12. Kinematic viscosity	no data*
13. Solubility in water in other solvents	no data*
14. Partition coefficient n-octanol/water (log value)	no data*
15. Vapour pressure	no data*
16. Density and/or relative density	no data*
17. Relative vapour density	no data*
18. Particle characteristics	no data*

### 9.2. Other information:

- 9.2.1. Information with regard to physical hazard classes:**  
No further data available or not applicable for the product.
- 9.2.2. Other safety characteristics:**  
No other characteristics available.  
Voltage: 3 V  
Electric capacity: 150 mAh (CR2025); 240mAh (CR2032)

\*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet, or the property is not applicable for the product.

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:**  
No reactivity known.
- 10.2. Chemical stability:**  
Stable at normal temperature and under normal pressure.
- 10.3. Possibility of hazardous reactions:**  
Hazardous polymerization will not occur.
- 10.4. Conditions to avoid:**  
Heat and open flames, short circuit and water.
- 10.5. Incompatible materials:**  
Oxidizing agents.
- 10.6. Hazardous decomposition products:**  
Carbon monoxide, carbon dioxide, hydrogen fluoride, phosphorous fluoride.

## SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:**  
**Acute toxicity:** Based on available data, the classification criteria are not met.  
**Skin corrosion/irritation:** Based on available data, the classification criteria are not met.  
**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.
- 11.1.1. Summaries of the information derived from the test conducted:**  
No data available.
- 11.1.2. Relevant toxicological properties:**  
No data available.
- 11.1.3. Information on likely routes of exposure:**  
Ingestion, inhalation, skin contact, eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:**  
No data available.
- 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:**  
No data available.
- 11.1.6. Interactive effects:**  
No data available.
- 11.1.7. Absence of specific data:**  
No information.
- 11.2. Information on other hazards:**  
**Endocrine disrupting properties:**  
Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.  
**Other information:**  
The product is an article; no hazardous substances are released during normal use. Nevertheless, in case of fire, explosion, misuse or improper disposal which leads to the damage of the product, hazardous substances may be released.

## SECTION 12: ECOLOGICAL INFORMATION

- 12.1. **Toxicity:**  
The mixture is not classified as hazardous for the environment.  
The product will not affect the environment evidently.
- 12.2. **Persistence and degradability:**  
No data available.
- 12.3. **Bioaccumulative potential:**  
No data available.
- 12.4. **Mobility in soil:**  
No data available.
- 12.5. **Results of PBT and vPvB assessment:**  
No data available.
- 12.6. **Endocrine disrupting properties:**  
Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.
- 12.7. **Other adverse effects:**  
No data available.

## SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. **Waste treatment methods:**  
Disposal according to the local regulations.
- 13.1.1. **Information regarding the disposal of the product:**  
Recycle or dispose of in accordance with national, regional and local regulations.  
Waste batteries cannot be treated as household waste.  
Do not throw them into fire or expose them to high temperature.  
Do not disassemble, pierce or crush.  
  
**List of Waste Code:**  
No waste disposal key according to the List of Waste Code (LoW code) can be determined for this product, as only the purpose of application defined by the user enables an allocation. The LoW code number has to be determined after a discussion with a waste disposal specialist.
- 13.1.2. **Information regarding the disposal of the packaging:**  
Dispose of in accordance with applicable regulations.
- 13.1.3. **Physical/chemical properties that may affect waste treatment options shall be specified:**  
No data available.
- 13.1.4. **Sewage disposal:**  
No data available.
- 13.1.5. **Special precautions for any recommended waste treatment:**  
No data available.

## SECTION 14: TRANSPORT INFORMATION

### ADR/RID; IMDG; IATA:

- 14.1. **UN number or ID number:**  
UN 3090 or UN 3091
- 14.2. **UN proper shipping name:**  
UN 3090: LITHIUM METAL BATTERIES (including lithium alloy batteries)  
UN 3091: LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT (including lithium alloy batteries) or LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT (including lithium alloy batteries)
- 14.3. **Transport hazard class(es):**  
Class: 9  
Label: 9
- 14.4. **Packing group:**  
No packing group.
- 14.5. **Environmental hazards:**  
No relevant information available.
- 14.6. **Special precautions for user:**  
Cargo aircraft only.  
Additional information:  
The dangerous goods regulations require that each battery design be subject to tests contained in Section 38.3 of the UN Manual of Tests and Criteria prior to being offered to transport.  
The package of the battery should be in compliance with the requirements of Special Provision 188 of the IMDG (39-18).

- 14.7. **Maritime transport in bulk according to IMO instruments:**  
Not applicable.

## SECTION 15: REGULATORY INFORMATION

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

**REGULATION (EC) No 1907/2006** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive (EC) No 1999/45 and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive (EEC) No 76/769 and Commission Directives (EEC) No 91/155, (EEC) No 93/67, (EC) No 93/105 and (EC) No 2000/21

**REGULATION (EC) No 1272/2008** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives (EEC) No 67/548 and (EC) No 1999/45, and amending Regulation (EC) No 1907/2006

**COMMISSION REGULATION (EU) 2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

- 15.2. **Chemical safety assessment:** No information.

## SECTION 16: OTHER INFORMATION

**Information regarding the revision of the safety data sheet:** No information.

**Literature references / data sources:**

Safety data sheet issued by the manufacturer (04. 01. 2021/EN).

**Methods used for the classification according to Regulation (EC) No 1272/2008:**

No classification is required, as the product is an article.

**Relevant hazard statements (code and full text) of Sections 2 and 3:**

**H225** – Highly flammable liquid and vapour.

**H260** – In contact with water releases flammable gases which may ignite spontaneously.

**H302** – Harmful if swallowed.

**H314** – Causes severe skin burns and eye damage.

**H319** – Causes serious eye irritation.

**H332** – Harmful if inhaled.

**H360FD** – May damage fertility. May damage the unborn child.

**EUH 014** – Reacts violently with water.

**EUH 019** – May form explosive peroxides.

**Training advice:** No data available.

**Full text of the abbreviations in the safety data sheet:**

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate.

AOX: Adsorbable organic halides.

BCF: Bioconcentration factor.

BOD: Biological Oxygen Demand.

CAS number: Chemical Abstract Service number.

CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

CMR effects: Carcinogenic, mutagenic, reprotoxic effects.

COD: Chemical Oxygen Demand.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

DNEL: Derived-No-Effect-Level.

ECHA: European Chemical Agency.

EC: European Community.

EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).  
EEC: European Economic Community.  
EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
ELINCS: European List of Notified Chemical Substances.  
EN: European Norm.  
EU: European Union.  
EWC: European Waste Catalogue (replaced by LoW – see below).  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.  
IATA: International Air Transport Association.  
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.  
IMDG: International Maritime Dangerous Goods.  
IMO: International Maritime Organization.  
IMSBC: International Maritime Solid Bulk Cargoes.  
IUCLID: International Uniform Chemical Information Database.  
IUPAC: International Union of Pure and Applied Chemistry.  
Kow: n-Octanol - Water Partition Coefficient.  
LC<sub>50</sub>: Lethal concentration resulting in 50 % mortality.  
LD<sub>50</sub>: Lethal dose resulting in 50 % mortality (median lethal dose).  
LoW: List of Waste.  
LOEC: Lowest Observed Effect Concentration.

LOEL: Lowest Observed Effect Level.  
NOEC: No Observed Effect Concentration.  
NOEL: No Observed Effect Level.  
NOAEC: No Observed Adverse Effect Concentration.  
NOAEL: No Observed Adverse Effect Level.  
OECD: Organization for Economic Cooperation and Development.  
OSHA: Occupational Safety and Health Administration.  
PBT: Persistent, Bioaccumulative and Toxic.  
PNEC: Predicted No Effect Concentration.  
QSAR: Quantitative Structure Activity Relationship.  
REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.  
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.  
SCBA: Self Contained Breathing Apparatus.  
SDS: Safety Data Sheet.  
STOT: Specific Target Organ Toxicity.  
SVHC: Substances of Very High Concern.  
UN: United Nations.  
UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.  
VOC: Volatile Organic Compound.  
vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations. The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required. Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.