



Material Safety Data Sheet

1. Product & Company Identification

| | |
|--------------------------|-----------------------------------------------------------------------|
| Product: | Coin type Lithium Manganese-Dioxide Battery, CR2016, non-rechargeable |
| Nominal voltage: | 3 V |
| Nominal capacity: | 80 mAh |
| Manufacturer: | Conrad Electronic SE |
| Address: | Klaus-Conrad-Str. 1, D-92240 Hirschau |
| Telephone: | +49 (0) 9604 / 40 - 8988 |
| Date of issue: | 10.01.2019 |

2. Composition/Information on Ingredients

| Ingredient | CAS# | Content (wt%) |
|--------------------------|-----------|---------------|
| Manganese Dioxide | 1313-13-9 | 15 to 40 |
| Propylene Carbonate | 108-32-7 | 2 to 6 |
| 1,2-Dimethoxyethane | 110-71-4 | 1 to 5 |
| Lithium Perchlorate | 7791-03-9 | 0 to 1.5 |
| Lithium or Lithium Alloy | 7439-93-2 | 1 to 5 |
| Graphite | 7782-42-5 | 1 to 4 |

Lithium content for each cell: 0,025g

The batteries are exempt articles and are not subject to the OSHA Hazard Communication Standard Requirement. This sheet is only provided as technical information and is referred normal use of the product in question. We make no warranty expressed or implied.

3. Hazards Identification

This battery contains lithium, organic solvent, and other combustible materials. For this reason, improper handling of the battery could lead to distortion, leakage*, overheating, explosion, or fire and cause human injury or equipment trouble. Please strictly observe safety instructions. (*leakage is defined as an unintended escape of liquid from a battery.)



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4. First Aid Measures

None unless internal materials exposure. If contents are leaked out, observe following instructions:

Inhalation

Fumes can cause respiratory irritation. Remove to fresh air and consult a physician.

Skin

Immediately flush skin with plenty of water. If itch or irritation by chemical burn persists, consult a physician.

Eyes

Immediately flush eye with plenty of water for at least 15 minutes. Consult a physician immediately.

Ingestion

If swallowing a battery, consult a physician immediately.

If contents come into mouth, immediately rinse by plenty of water and consult a physician.

5. Fire Fighting Measures

Extinguishing Media

Extinguisher of alkaline metal fire is effective. Plenty of cold water is also effective to cool the surrounding area and control the spread fire. But hydrogen gas may be evolved by the reaction of water and lithium and it can form an explosive mixture. Therefore in the case that lots of lithium batteries are burning in a confined space, use a smothering agent.

Fire fighting procedure

Use self-contained breathing apparatus and full protective gear not to inhale harmful gas.

6. Accidental Release Measures

Not applicable.

7. Handling and Storage

Handling

Never swallow. Never charge. Never heat. Never expose to open flame. Never disassemble. Never reverse the positive and negative terminals when mounting. Never short-circuit the battery. Never weld the terminal or wire to the body of the battery directly. Never use different batteries together. Never touch the liquid leaked out of battery. Never bring fire close to battery liquid. Never keep in touch with battery.

Storage

Never let the battery contact with water. Never store the battery in hot and high humid place.



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8. Exposure Controls, Personal Protection

| | | |
|-------------------------------|---------------|----------------|
| Respiratory Protection | | Not applicable |
| Ventilation | Local Exhaust | Not applicable |
| | Mechanical | Not applicable |
| | Special | Not applicable |
| | Other | Not applicable |
| Eye Protection | | Not applicable |
| Protective Glove | | Not applicable |
| Other protective clothing | | Not applicable |

9. Physical/Chemical Characteristics

Not applicable

10. Stability and Reactivity

| | |
|----------------------------------------------|----------------|
| Stability | Stable |
| Incompatibility | Water |
| Hazardous polymerization | Will not occur |
| Condition to avoid | See section 7. |
| Hazardous Decomposition or Byproducts | Hydrogen |

11. Toxicological Information

Not applicable

12. Ecological Information

Not applicable

13. Disposal condition

The battery may be regulated by national or local regulation. Please follow the instructions of proper regulation. As electric capacity is left in a discarded battery and it comes into contact with other metals, it could lead to distortion, leakage, overheating, or explosion, so make sure to cover the (+) and (-) terminals with friction tape or some other insulator before disposal.

