

1 Identification

Product identifier

Trade name: 625B7/9 - Lithium batteries CR

Other means of identification

This safety data sheet pertains to the following products:

625B7 - Battery CR1632

625B9 - Lithium Battery CR1216

Recommended use and restrictions on use

General use: Lithium batteries for orthopedic procedures
For commercial user only.

Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

Street/POB-No.: 5470 Harvester Road

Postal code, city: Burlington, ON L7L 5N5, CA
Canada

WWW: www.ottobock.ca

Email: info.canada@ottobock.com

Telephone: (800) 665-3327

Telefax: (800) 463-3659

Department responsible for information:

Mark Agro, Telephone: (800) 665-3327 (9 am - 5 pm)

Additional information:

Corporate headquarters:

Ottobock SE & Co. KGaA

Max-Näder-Straße 15

Duderstadt

Germany

Emergency telephone number

COLLECT, Telephone: (613) 996-6666

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

2 Hazard identification

Classification

This mixture is classified as not hazardous.

Information elements

Symbols: not applicable

Hazard statements: not applicable

Precautionary statements:

Keep out of reach of children.

Other hazards known to the supplier with respect to the product

In case of ingestion: risk of suffocation!

The battery is hermetically sealed.

danger of releasing ingredients, mentioned in section 3, by damaging the battery

- with strong mechanical action,
- in case of heating and/or Fire,
- with influence of water,
- short circuit.

Hazard statements:

Harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage.

3 Composition/Information on ingredients

Mixture

Chemical name: Lithium batteries - Article, Cell.
The chemical materials are stored in a hermetically sealed metal case.
Contains Electrolyte, organic.

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 1313-13-9	Manganese dioxide	< 50 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (inhalative).
CAS 7439-93-2	Lithium	< 10 %	Water-reactive 1. Skin Corrosion 1B.
CAS 7791-03-9	Lithium perchlorate	< 1 %	Acute Toxicity 4 (oral). Skin Irritation 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.

The actual concentration or concentration range is withheld as a trade secret.

4 First-aid measures

Description of necessary first-aid measures

General information: in case of damaged battery cases: Release of dangerous ingredients possible.
Generates dangerous gases or fumes in contact with.

In case of inhalation: in case of damaged battery cases:
Provide fresh air. Keep victim at rest in half upright position. Seek medical attention.

In case of swallowing: in case of damaged battery cases / In case of exposure to hazardous ingredients:
Drink large quantities of water.
Do not induce vomiting. Risk of perforation in case of vomiting!
Immediately get medical attention. Do not try to neutralize.

In case of skin contact: in case of damaged battery cases / In case of exposure to hazardous ingredients:
Clean with plenty of water. If possible, also wash with polyethylene glycol 400.
Take off immediately all contaminated clothing.

In case of eye contact: in case of damaged battery cases / In case of exposure to hazardous ingredients:
Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Afterwards, consult an ophthalmologist immediately.

Most important symptoms and effects, whether acute or delayed

No hazardous reaction when handled and stored according to provisions.
In case of ingestion: Risk of suffocation (Cell)!
in case of damaged battery cases: health hazards. Causes severe skin burns and eye damage.

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

5 Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

Extinguishing powder, Extinguishing agent on the basis of sodium chloride, sodium hydrogen carbonate, limestone, or with metal extinguishing powder.

Unsuitable extinguishing media:

Water, carbon dioxide, foam

Specific hazards arising from the product

> 100 °C: Cell may explode.
In case of fire may be liberated: hydrogen fluoride, Chlorine compounds, carbon monoxide and carbon dioxide.

Special protective equipment and precautions for fire-fighters

Wear a self-contained breathing apparatus and chemical protective clothing.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

in case of damaged battery cases:
Remove all sources of ignition.
Provide fresh air. Avoid contact with skin and eyes.
Wear suitable gloves.
In case of development of vapours or dust:
Do not inhale vapours or dust particles.

Environmental precautions:

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Take up mechanically. Dispose of waste according to applicable legislation.
Avoid generation of dust.
Electrolyte, organic: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal. Final cleaning.

7 Handling and storage

Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.
Avoid damage to the battery casing.
in case of damaged battery cases: Avoid exposure.

Precautions against fire and explosion:

Avoid short circuit. Avoid damage to the battery casing.
Provide fire extinguishing equipment.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Provide adequate ventilation. Store in a dry place.
Protect from: humidity, heat, UV-radiation/sunlight
Storage temperature: < 35 °C

Hints on joint storage: Avoid contact with water, acids, alcohols, halogenic hydrocarbons and halogens.

8 Exposure controls/Personal protection

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
1313-13-9	Manganese dioxide	Canada: Québec, VEMP	0.05 mg/m ³ (Aerosol, respirable fraction)
		Canada: Québec, VEMP	0.2 mg/m ³ (Aerosol, inhalable fraction)

Additional information: The chemical materials are stored in a sealed battery case.

Appropriate engineering controls

In case of damaged battery cases: Provide adequate ventilation.
In case of development of vapours or dust:
The use of local exhaust ventilation is recommended.

Individual protection measures, such as personal protective equipment

Respiratory protection: In case of damaged battery cases:
If necessary: When vapours form combination filter Use filter type A, B, K according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

Hand protection: In case of damaged battery cases:
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: rubber - breakthrough time >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: In case of damaged battery cases:
Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010

General hygiene considerations:

Avoid damage to the battery casing.
In case of damaged battery cases:
Do not inhale vapours or dust particles.
Avoid contact with skin and eyes.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	Form: solid
Colour:	No data available
Odour:	odourless
Odour threshold:	No data available
Melting point and freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower and upper explosion limit or lower and upper flammability limit:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	No data available
Solubility:	No data available
Partition coefficient — n-octanol/water:	No data available
Vapour pressure:	No data available
Density and/or relative density	No data available
Vapour density:	No data available
Particle characteristics:	Not applicable

Additional information

Additional information: weight 625B7 - Batterie CR1632: 3,35 g

10 Stability and reactivity

Reactivity:	> 100 °C: Cell may explode.
Chemical stability:	Stable under recommended storage conditions. Not readily combustible.

Possibility of hazardous reactions:

Fire hazard in case of technical defects.

In case of damaged battery cases:

Lithium: Reacts violently with water liberating hydrogen.

Without inert protective gas risk of spontaneous ignition.

Lithium perchlorate: Contact with combustible material may cause fire.

Conditions to avoid:

Protect from: humidity, heat, UV-radiation/sunlight

Avoid short circuit. Avoid damage to the battery casing.

Incompatible materials:

in case of damaged battery cases:

Avoid contact with water, acids, alcohols, halogenic hydrocarbons, nitrogen, carbon dioxide, oxygen and halogens.

Lithium perchlorate: Contact with combustible material may cause fire.

Hazardous decomposition products:

In case of fire may be liberated: hydrogen fluoride, Chlorine compounds, carbon monoxide and carbon dioxide.

11 Toxicological information

Information on the likely routes of exposure

No data available

Health hazard information

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data.

Serious eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

Other information:

Cell: risk of suffocation!

In case of damaged battery cases:

Harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage. vapours irritate eyes, mucous membranes and respiratory system.

12 Ecological information

Ecotoxicity

Further details:

No data available

Persistence and degradability

Further details: Product is not biodegradable.

Bioaccumulative potential

Partition coefficient — n-octanol/water:

No data available

Mobility in soil

No data available

Other adverse effects

General information: Discharge into the environment must be avoided.

13 Disposal considerations

Waste treatment methods

Product

Recommendation: Dispose of waste according to applicable legislation.

Package

Recommendation: Dispose of waste according to applicable legislation.
Packing can be recycled or disposed of.

14 Transport information

UN number

TDG: UN3090

IMDG, IATA-DGR: UN 3090

UN proper shipping name

TDG: UN 3090, Lithium metal batteries

IMDG, IATA-DGR: UN 3090, LITHIUM METAL BATTERIES

Transport hazard class

TDG: 9

IMDG: Class 9, Subrisk -

IATA-DGR: Class 9

Packing group

TDG, IATA-DGR: not applicable

IMDG: -

Environmental hazards

Marine pollutant: no



Special precautions in connection with transport or conveyance either within or outside the premises

Canada: Transportation of Dangerous Goods (TDG)

Special Provisions: 34, 123, 137, 138, 1
Explosive limit and limited quantity index: 0
Passenger carrying road or rail index: 5 kg

Sea transport (IMDG)

EmS: F-A, S-I
Special Provisions: 188 230 310 376 377 384 387
Limited quantities: 0
Excepted quantities: E0
Package - Instructions: P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906
Package - Provisions: -
IBC - Instructions: -
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: -
Tank instructions - Provisions: -
Stowage and handling: Category A. SW19
Properties and observations: Electrical batteries containing lithium metal may react (e.g., flame, heat, emission of toxic, corrosive or flammable gases or vapours) or disassemble due to damage, defects or short circuit.
Marine pollutant: no
Segregation group: none

Air transport (IATA)

Proper shipping name: UN 3090, LITHIUM METAL BATTERIES
Hazard label: Lithium batt or Sodium-ion batt
Excepted Quantity Code: E0
Passenger and Cargo Aircraft: Ltd.Qty.: Forbidden
Passenger and Cargo Aircraft: Forbidden
Cargo Aircraft only: Pack.Instr. See 968 - Max. Net Qty/Pkg. See 968
Special Provisions: A88 A99 A154 A183 A201 A213 A334 A802
Emergency Response Guide-Code (ERG): 12FZ

15 Regulatory information

National regulations - Canada

Manganese dioxide: DSL: listed
Lithium: DSL: listed
Lithium perchlorate: DSL: listed

Further regulations, limitations and legal requirements

No data available

16 Other information

Revision date: 1/1/2026

Date of first version: 17/2/2016

Reason of change: Changes in section 14: IATA-DGR 2026

Abbreviations and acronyms:

Acute Toxicity: Acute toxicity
 AS/NZS: Australian Standards/New Zealand Standards
 CAS: Chemical Abstracts Service
 CFR: Code of Federal Regulations
 CLP: Classification, Labelling and Packaging
 DMEL: Derived minimal effect level
 DNEL: Derived no-effect level
 DSL: Domestic Substances List
 EC: European Community
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
 EN: European Standard
 EQ: Excepted quantities
 Eye Irritation: Eye irritation
 IATA: International Air Transport Association
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IMDG Code: International Maritime Dangerous Goods Code
 IMO: International Maritime Organization
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, bioaccumulative and toxic
 PNEC: Predicted no-effect concentration
 Skin Corrosion: Skin corrosion
 Skin Irritation: Skin irritation
 STOT SE: Specific target organ toxicity - single exposure
 TDG: Transportation of Dangerous Goods Regulation in Canada
 TRGS: Technical Rules for Hazardous Substances
 UN: United Nations
 UV: Ultraviolet
 vPvB: Very persistent and very bioaccumulative
 Water-reactive: Water-reactive

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.