Bestell-Nummer: 11630075
Bestell-Nummer: 11630076
Bestell-Nummer: 11630077
Bestell-Nummer: 11630078
Bestell-Nummer: 11630079
Bestell-Nummer: 11630080
Bestell-Nummer: 11630081
Bestell-Nummer: 11630181
Bestell-Nummer: 11630182
Bestell-Nummer: 11630155
Bestell-Nummer: 11630154
Bestell-Nummer: 11630153

maxell

CR Battery

Product Safety Data Sheet

The batteries are exempt articles and are not subject to the OSHA Hazard Communication Standard Requirement. This sheet is provided as technical information only. The information and recommendations set forth are made in good faith and are believed to be accurate as of the date of preparation. However, Maxell makes no warranty expressed or implied.

Section 1 - Product and Company Identification

Product Name:	Sizes:	Date of preparation:
Coin Type Lithium Manganese Dioxide Batteries (CR)	All	Jan. 1, 2010

Company:	Telephone Numbers:
Hitachi Maxell, Ltd., Micro Battery Division	81-(0)794-63-8054
Address (Number, Street, City, State, and ZIP Code):	Fax Numbers:
5, Takumidai, Ono-shi, Hyogo 675-1322, Japan	81-(0)794-63-8058

Section 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

Model	Li content (g)
CR1025	0.009
CR1216	0.008
CR1220	0.011
CR1616	0.02
CR1620	0.025
CR1632	0.04
CR2012	0.02

Model	Li content (g)
CR2016	0.03
CR2025	0.05
CR2032	0.07
CR2032H	0.07
CR2430	0.09
CR2450	0.18

Section 3 - Hazards Identification

This 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.)

Section 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.

Section 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.

Section 6 - Accidental Release Measures

N/A

Section 7 - Handling and Storage

1) 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.

2) Storage

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

Section 8 - Exposure Controls, Personal Protection

Respiratory Protection		N/A
Ventilation	Local Exhaust	N/A
	Mechanical	N/A
	Special	N/A
	Other	N/A
Eye Protection		N/A
Protective Gloves		N/A
Other protective clothing		N/A

Section 9 - Physical/Chemical Characteristics

N/A

Section 10 - Stability and Reactivity

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

Section 11 - Toxicological Information

N/A

Section 12 - Ecological Information

N/A

Section 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.

Section 14 - Transportation Information

Shipping Name (UN Number)	Lithium metal batteries (UN3090)
	Lithium metal batteries packed with equipment (UN3091)
	Lithium metal batteries contained in equipment (UN3091)
Hazard Classification	Class 9 (Miscellaneous)

Organizations governing the transport of lithium batteries

Area	Method	Organization	Special Provision
International	Air	IATA, ICAO	Packing Instruction 968-970 A154, A164
International	Marine	IMO	SP188
U.S.A	Air, Rail, Road, Marine	DOT	49 CFR Section 173.185

Their regulations are based on the UN Recommendations. Each special provision provides specifications on exceptions and packaging for lithium batteries shipping. The product can be transported as “Non Dangerous Goods” when they meet the requirements of packing instruction 968 section II or 969 section II or 970 section II of IATA-DGR (51st edition) or SP188 of IMO-IMDG Code.

Section 15 - Regulatory Information

N/A

Section 16 - Other Information

If you want further information, please contact Maxell sales representative.

N/A=Not Applicable

Hitachi Maxell, Ltd.
2-18-2, Iidabashi, Chiyoda-ku, Tokyo 102-8521, Japan
http://www.maxell.com