

MATERIAL DATA SHEET

Types : CR1216, CR1220, CR1616, CR1620, CR2016, CR2025, CR2032, CR2320, CR2430  
CR2450, CR1/3N, V28PXL, CR1/2AA, CR2/3AA, CRAA, CR2/3A, CR2NP  
Chemical system : MnO<sub>2</sub> | DME, PC, LiClO<sub>4</sub> | Li | Date: 2002-02-11

1. TYPE, VOLTAGE, CAPACITY AND WEIGHT

Cell Type	Voltage (V)	Weight (g)
CR1216	3.0	0.7
CR1220	3.0	0.8
CR1616	3.0	1.2
CR1620	3.0	1.2
CR2016	3.0	1.8
CR2025	3.0	2.5
CR2032	3.0	3.0
CR2320	3.0	2.9
CR2430	3.0	4.0
CR2450	3.0	6.2
CR1/3N	3.0	3.0
V28PXL	6.0	8.8
CR1/2AA	3.0	11.5
CR2/3AA	3.0	15.0
CRAA	3.0	21.5
CR2/3A	3.0	17.0
CR2NP	3.0	13.0

2. INGREDIENTS

		Approx. percentage (%) of total weight
Active materials*	- Manganese dioxide - MnO <sub>2</sub>	13 - 40
	- Lithium - Li	1 - 3
	- Propylene carbonate - PC	3 - 9
	- 1,2 Dimethoxyethan - DME	1 - 5
	- Lithium perchlorate - LiClO <sub>4</sub>	0.3- 1.5
Main passiv materials*	- Steel	33 - 74
	- Plastic	3 - 10

\* All cell types are sealed button cells, cylindrical cells or button cell batteries, no chemical hazard will be posed as long as the cell remains in sealed condition.

3. SAFETY GUIDELINE

- 3.1 Keep out of the reach of children. If swallowed, contact a physician at once.
- 3.2 Do not heat. Nor dispose in fire. May burst or release toxic materials.
- 3.3 Avoid forced discharge.
- 3.4 Do not short circuit, may cause burns.
- 3.5 Do not charge.
- 3.6 Do not solder the battery directly.
- 3.7 Do not disassemble, apply excessive pressure or deform.
- 3.8 Battery compartment should provide sufficient space for battery to expand in case of abuse.
- 3.9 Either battery compartment or battery connector should have a design that makes it impossible to place the battery in reverse polarity.
- 3.10 Equipment intended for use by children should have tamper-proof battery compartment.
- 3.11 Battery of different electrochemical system, grades, or brands should not be mixed.
- 3.12 Battery disposal method should be in accordance with local and state regulations.

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