

## MATERIAL SAFETY DATA SHEET

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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. Koomax makes no warranty expressed or implied.

### Section 1-Product and Company Identification

Manufacturer: Shanghai Koomax Electronics Co., Ltd

Address: 1612,Guangqi City,No.425, Yishan Rd, Xuhui,Shanghai 200235, China.

Tel: +86-021-33688983

### Section 2-Composition/Information on Ingredients

Ingredient	CAS#	Content(wt%)
Stainless Steel	12597-68-1	45 to 60
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
Polypropylene	9003-07-0	3 to 10
Glass Fiber	65997-17-3	1 to 2
Pb	7439-92-1	<0.0040
Hg	7439-97-6	<0.0005
Cd	7440-43-9	<0.0020

\*) Lithium content for each cell

Model	Li content(g)	Model	Li content(g)
CR2012	0.014	CR2032	0.065
CR2016	0.025	CR2430	0.090
CR2025	0.048	CR2450	0.165
CR1632	0.038	CR1220	0.012
CR1620	0.030	CR1216	0.008
CR1616	0.016	CR927	0.008
CR1025	0.008	CR2477	0.290

CR1225	0.015	CR3032	0.170
CR2325	0.060	CR2320	0.045
CR2330	0.072	CR2354	0.155

### **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**

NA

## **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	NA	
Ventilation	Local Exhaust	NA
	Mechanical	NA
	Special	NA
	Other	NA
Eye Protection	NA	
Protective Glove	NA	
Other protective clothing	NA	

## **Section 9–Physical/Chemical Characteristics**

NA

## **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**

NA

## **Section 12–Ecological Information**

NA

