

# Lixing Batteries

## 材料安全资料表 Material Safety Data Sheet

1 化学品及企业标识(Chemical Product and Company Identification)			
产品名称 Product Name		锂-二氧化锰扣式电池 CR2032 3.0V 220mAh Lithium manganese dioxide coin battery	
制造商名称 Manufacturers Name		武汉力兴（火炬）电源有限公司 WUHAN LIXING (TORCH)POWER SOURCES CO.,LTD.	
地址 Address		武汉市东湖高新技术开发区关东工业园 430074 The Guandong industrialized country of East Lake high and new technology development zone , Wuhan 430074	
品牌 Brand		KTS	
紧急联络电话 Emergency Number		86-27-87561817	
传真 Fax		86-27-87414024	
2 成分/组成信息(Composition/Information on Ingredients)			
名称 Description	含量 Approximate Percent ( wt % )	重量 Approximate weight (mg )	化学文摘号 CAS No.
二氧化锰 Manganese dioxide	26.8	804	1313-13-9
碳 Graphite	2.2	66	7782-42-5
Teflon (PTFE)	1.5	45	9002-84-0
PP 塑料 Plastic	4.7	141	9003-07-0
不锈钢 SUS430 Stainless Steel	53.6	1608	12597-68-1
锂 Lithium	2.1	63	7439-93-2
高氯酸锂 Lithium Perchlorate	0.9	27	7791-03-9
碳酸丙烯酯 Propylene carbonate	6.5	195	108-32-7
乙二醇二甲醚 1,2 Dimethoxyethane	1.7	51	110-71-4
总计 Total	100	3000	-
3 危险性概述(Haxards Summarizing)			
锂 Lithium	与水接触剧烈反应,易燃烧。只能用苏打粉,沙子等灭火。 It reacts violently when in contact with water,and it is flammable.Use only soda ash or sand to extinguish flame.		
二氧化锰 Manganese dioxide	强氧化剂,具腐蚀性,摄入有毒。可用 CO <sub>2</sub> 灭火。 A toxic material also an corrosive and an oxidising agent.Use only		

	CO <sub>2</sub> or halon to extinguish flame.
碳酸丙烯酯 Propylene carbonate	可腐蚀眼睛和皮肤。 可用 CO <sub>2</sub> 灭火。 Will irritate the eyes and the skin by absorption,harmful if ingested or inhaled. Use only CO <sub>2</sub> or halon to extinguish flame.
乙二醇二甲醚 1,2 Dimethoxyethane	极易燃。吸入和摄入有害。可用 CO <sub>2</sub> 灭火。 Highly flammable. Harmful if ingested or inhaled. Use only CO <sub>2</sub> or halon to extinguish flame.
其他组分不活泼,或者危害较小。 Other materials are either inert or have low hazard associated with their exposure.	
<b>4 急救措施(First-aid Measures)</b>	
眼睛:用水冲洗,立即就医。 Eyes:irrigate thoroughly with water.Obtain medical attention.	
皮肤:用水彻底冲洗,脱掉受污染的衣物并清洗。除非少量接触,否则就医。 Skin:drench the skin thoroughly with water.Remove contaminated clothing and wash before re-use.Unless contact has been slight,obtain medical attention.	
吸入:离开污染场所,休息并保暖。严重时就医。 Inhalation:remove from exposure,rest and keep warm.In severe cases,obtain medical attention.	
食入:用水彻底冲洗口部后大量饮水。就医。 Ingestion:wash out mouth thoroughly with water and give plenty of water to drink.Obtain medical attention.	
<b>5 消防措施(Fire-fighting Measures)</b>	
大量电池燃烧,可能发生爆炸。适合的灭火介质为 CO <sub>2</sub> ,干粉灭火器和沙子。不可用水灭火。 消防人员应配戴空气呼吸器, 防护头盔, 眼镜等。 There would be explosion in the case where significant quantities of lithium-manganese dioxide batteries have been involved in a fire. Applicable extinguishing media: CO <sub>2</sub> fire extinguisher , ABC dry powder extinguisher , sand ,etc.Do not use water as extinguishing agent. Firemen should wear the air breathe machine, helmet, glasses ,etc.	
<b>6 泄露应急处理(Accidental Release Measures)</b>	
不可呼吸泄漏液蒸汽,或用手接触液体。若皮肤已接触电解质,立即用大量水冲洗。可用泥土和沙子吸收泄漏液。将漏液电池和沙子按特殊废弃物处理。 Do not breath vapours or touch liquid with bare hands.If the skin has come into contact with the electrolyte it should be washed thoroughly with water.Earth or sand should be used to absorb the exudation.Seal leaking battery and earth in a heavy-duty Polythene bag and dispose of as special waste.	
<b>7 操作处置与储存(Handling and Storage)</b>	
保证电池包装完整,避免短路。 Pack the batteries well,and avoid short circuit.	
不要拆卸电池。 Never disassemble batteries.	
不要吸入电池蒸汽或用光手接触电池内部物质。 Do not breathe cell vapors or touch internal material with bare hands.	
将电池储存在阴凉通风的地方,避免阳光直射。 Store batteries in cool well-ventilated area,keep out of direct sunlight.	
<b>8 接触控制/个体防护(Exposure Controls/Personal Protection)</b>	

<p>外部含镍壳盖的腐蚀可能生成有毒产物。避免吞咽电池。接触后洗手。</p> <p>External corrosion of the nickel can could result in the formation of toxic metal salts. Avoid ingestion, Wash hands after contact.</p>
<p><b>9 理化特性(Physical and Chemical Properties)</b></p> <p>本品为固态,无味。其他指标不适用。</p> <p>This battery is solid state , and inodorous. The other items are not applicable.</p>
<p><b>10 稳定性和反应性(Stability and Reactivity)</b></p> <p>有害物质被密封在壳体内,在正常情况下本产品稳定,无害。</p> <p>Hazardous materials are housed within a sealed unit, under normal conditions this unit is stable and non-hazardous.</p> <p>若电池密封被损坏,金属锂会与水反应放出可燃性气体。</p> <p>Lithium will react with water and produce flammable gas if the seal of battery is damaged.</p>
<p><b>11 毒理学资料(Toxicological Information)</b></p> <p>若电池不损坏,无毒。</p> <p>No toxicity unless the battery is damaged.</p>
<p><b>12 生态学资料(Ecological Information)</b></p> <p>不适用。</p> <p>Not Applicable.</p>
<p><b>13 废弃处置(Disposal)</b></p> <p>不要焚烧电池或将电池加热超过 80℃。根据当地法规处理电池。</p> <p>Do not incinerate or subject cells to temperature in excess of 80℃. Dispose of in accordance with local regulations.</p>
<p><b>14 运输信息(Transport Information)</b></p> <p>国际运送规定: 锂电池国际运输规程 World transports and stipulates : Lithium battery international transportation rules Effective April 1, 2016 all LIXING lithium batteries are not subject to the requirements of the U.S. Department of Transportation (DOT), Subchapter C, Hazardous Material Regulations if shipped in compliance with 49 CFR 173.185 and Special Provision 188. Currently all LIXING lithium batteries can be transported under the International Civil Aviation Organization (ICAO) and the Packing Instructions (PI) 968 Section IB (Batteries), PI 969 Section II (Batteries, packed with equipment) and PI 970 Section II (Batteries, contained in equipment). They are considered to be non-dangerous by the IATA Dangerous Goods regulations as below:</p> <ul style="list-style-type: none"> <li>● The goods with lithium metal cells and should complies with IATA DGR IATA Dangerous Goods Regulations 58<sup>th</sup> edition.</li> <li>● The substance is not restricted to IMO IMDG code according to special provision 188.</li> <li>● Section IB of PI968; Section II of PI969 、PI970</li> </ul>

<ul style="list-style-type: none"> <li>● A lithium metal cell, the lithium content is not more than 1g.</li> <li>● For these lithium cells/batteries contained in equipment, the equipment is equipped and protected with an effective means to prevent short circuits, dangerous reverse current flow and accidental activation.</li> <li>● This consignment does not contain any recalled and/or defective batteries that have the potential of producing a dangerous evolution of heat, fire or short circuit.</li> <li>● Each package of batteries must be capable of withstanding a 1.2m-drop test in any orientation without damage to cells or batteries contained therein, shifting of the contents so as to allow battery to battery(or cell to cell) contact and/or release of contents.</li> <li>● Each cell or battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3 as of the Material Safety Data Sheet Reference Number LX-QR-824-38.</li> </ul> <p>The only requirement for shipping these batteries, in all modes of transportation, are that they must be separated to prevent short-circuits and to prevent movement that could lead to short-circuits. They must also be packed in strong packaging that can withstand the rigors normal to transportation.</p>									
<p>运输时,应避免电池短路。</p> <p>The batteries being transported must be protected from shorting-circuiting and protected from movement that could lead to short-circuiting.</p> <p>During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.</p> <p>During the transportation do not allow packages to be fallen down or damaged.</p>									
<p><b>15 法规信息(Regulatory Information)</b></p> <p>特殊要求依据当地法规。</p> <p>Special requirement be according to the local regulations.</p>									
<p><b>16 其他信息(Other Information)</b></p> <table border="1"> <tr> <td>填表时间 Date of Issue</td> <td>2016.12.14</td> </tr> <tr> <td>填表部门 Dept. of Issue</td> <td>名称:武汉力兴(火炬)电源有限公司 Name: the R&amp;S dept. of wuhan lixing (torch) power sources co.,ltd.</td> </tr> <tr> <td>文件号 Document Number</td> <td>LX-QR-824-38</td> </tr> <tr> <td>备注 Remarks</td> <td>以上数据只基于对产品目前状态的了解。 The above information is given based on the present state of our knowledge of this product.</td> </tr> </table>		填表时间 Date of Issue	2016.12.14	填表部门 Dept. of Issue	名称:武汉力兴(火炬)电源有限公司 Name: the R&S dept. of wuhan lixing (torch) power sources co.,ltd.	文件号 Document Number	LX-QR-824-38	备注 Remarks	以上数据只基于对产品目前状态的了解。 The above information is given based on the present state of our knowledge of this product.
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