常州博康电子技术有限公司

Changzhou Bokang Electronics Co.,Ltd

12S1P 48V 4.0Ah GGP BATTERY MSDS

一、制造商或供应商资料

I. Product and Company Information

制造商或供应商名称：常州博康电子技术有限公司 Producer/Supplier: Changzhou Bokang Electronics Co.,Ltd
地 址：常州市钟楼区经济开发区星港路65-6号 Add: NO.65-6 XinggangRoad.ZhonglouEconomicDevelop,ent Zone.Changzhou,Jiangsu,China
咨询 者 姓 名：周卫 Name of consultant: zhou wei
紧急 连 络 电 话 ： Emergency Number: 0519-88065051

二、成分辨识资料（若该物品属纯物质，则填写“纯物质”，若该物质属“混合物”则填写混合物一栏纯物质：

II. Composition / Information on Ingredients (If it is pure material, fill out “pure material”. If it is mixture,fill out the “mixture” column.)

Material Name	Chemical Name	CAS No.	Wt%
FR4	Glass fabric 玻璃纤维	65997-17-3	45
	Epoxy Resin 环氧树脂	26265-08-7	28
	Copper Foin 铜箔	7440-50-8	17
Green paste（绿漆）	O-Cresol novolac epoxy（甲醛与环氧氯丙烷和邻甲基苯酚的聚合物）	29690-82-2	56
	Barium sulfate（硫酸钡）	7727-43-7	25
	Acrylic ester（聚二季戊四醇六丙烯酸酯）	29570-58-9	19
White Ink（白色油墨）	Epoxy Acrylate（环氧丙烯酸酯）	N/A	42
	Pigment（酞菁绿）	1328-53-6	22
	Z-Ethgl-4-methgeimidazole （2-乙基-4-甲基咪唑）	931-36-2	18
	Filler（滑石粉）	14807-96-6	18
Fillers（填充物）	Fillers（滑石粉）	14807-96-6	60
Silicone modified polymer（硅树脂聚合物）	Silicone modified polymer	N/A	30
Paraffin（石蜡）	Paraffin	N/A	5
Carbon black（炭黑）	Carbon black	1333-86-4	5
Solder（焊料）	Tin（锡）	7440-31-7	89
	Silver（银）	7440-22-4	5
	Copper（铜）	7440-50-8	1
	Resin（松香）	65997-05-9	5
Plating（电镀）	Sn（锡）粉状	7440-31-7	99.5
	others	N/A	0.5
Lead Eire-Dumet（导线）	Ni（镍）	7440-02-0	42.15
	Fe	7439-89-6	57.85
	Cu	7440-50-8	100
Dice	Si（硅）	7440-21-3	70.9
	Al（铝）	7429-90-5	0.1
	Ag	7440-22-4	28.6
	Ni	7440-02-0	0.4
Ink（油墨）	C	7440-44-0	100
BaTiO3（钛酸钡）	BaTiO3	12047-27-7	69
Nickel（镍）	Nickel	7440-02-0	2.5～7
Copper（铜）	Copper	7440-50-8	21
Tin（锡）	Tin	7440-31-5	0.2～3
3M #1558 Electrical Tape(NF)（醋酸胶带）	Acetate Cloth and Acrylic Adhesive Tape	N/A	100
MAXBOND 1603HFR - 1 Glue（黄胶）	CR Rubber	9010-98-4	10~20
	Phenolic resins	9003-35-4	10~20
	Flame Retardants	1309-6404	5
	Solvents	108-88-3	60
		1975-9-2	
		78-93-3	
		110-82-7	

		110-54-3	
	Additive	N/A	1
Glue（704胶）	Cadmium （镉）	7440-43-9	N.D.
	Calcium oxide(氧化镉)	1306-19-0	N.D.
	Dipentyl phthalate（邻苯二甲酸二戊脂）	131-18-0	N.D.
Carbon（碳）	Carbon	N/A	50
CP（化学纯）	Sn （锡 粒状）	7440-31-5	11
	Fe（碳化铁）	12011-67-5	67
	Cu	7440-50-8	22
ALUMINUM CALCIUM SODIUM SILICATE（碳酸铝钙钠）	SODIUM SILICATE（二氧化硅）	14808-60-7	60
TITANIUM DIOXIDE（二氧化钛）	TITANIUM DIOXIDE	13463-67-7	30
DIBUTYLBIS(LAUROYLOXY)STANNANE（二月桂酸二丁基锡）	DIBUTYLBIS(LAUROYLOXY)STANNANE	77-58-7	10
Conductor（导体）	Copper	7440-50-8	99
	Tin	7440-31-5	1
Insulation（绝缘）	Polyethylene（聚乙烯）	9002-88-4	30
	Magnesium Compound（镁聚合物）	N/A	55
	Other	N/A	15
Tin（锡）	Sn	7440-31-5	99.4
	Cu	7440-50-8	0.6
Positive electrode	Lithium transition metal oxidate (Li[M]m[O]n *2)	12190-79-3	20~60
		12057-17-9	
		182442-95-1	
Positive electrode’s base	Aluminum	7429-90-5	1~10
Negative electrode	Carbon	7782-42-5	10~30
		7440-44-0	
Negative electrode’s base	Copper	7440-50-8	1~15
Electrolyte	Organic electrolyte principally involves ester carbonate	N/A	5~25
Outer case	Iron	7439-89-6	1~30

三、危害辨识资料：

III. Hazards Identification

最 重要 危害效应 Major Hazard Effect	健康危害效应：（分别描述该物品被人体吸入、溅入眼睛、皮肤接触对人体的健康影响） Hazard Warnings for Health: (Respectively describe the impact on health after this materials is	一、吸入：I. Inhalation: 二、眼睛：II. Eye contact: 三、皮肤：III. Skin contact:
	absorbed and inhaled by human body, spilt into eyes, and contacts skin.)	Inhalation: The steam of the electrolyte has an anesthesia action and stimulates a respiratory tract. Skin contact: The steam of the electrolyte stimulates a skin. The electrolyte skin contact causes a sore and stimulation on the skin. Eye contact: The steam of the electrolyte stimulates eyes. The electrolyte eye
	环境影响： Environment impact:	Since a battery cell remains in the environment, do not throw out it into the environment
	物理性及化学性危害： Physical and chemical harms:	None
	特殊危害： Special harm:	If the electrolyte contacts with water, it will generate detrimental hydrogen fluoride.Since the leaked electrolyte is inflammable liquid, do not bring close to fire.

四：急救措施

IV. First-Aid Measures

不同暴露途径之急救方法：（描述发生以下状况以后的急救程序） First-aid measures for different exposure occasions: (Describe the first-aid procedures under the followingcircumstances)			
一、吸入 Make the victim blow his/her nose, gargle. Seek medical attention if necessary	二、皮肤接触 Remove contaminated clothes and shoes immediately. Wash extraneous matter or contact region with soap and plenty of water immediately using soap and water.	三、眼睛接触 Do not rub one’s eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.	
最重要症状及危害效应： Major Disease and Harm Effect:None			
对急救人员之防护： First-Aid Personnel Protection: None			
对医师之提示： Prompt to Doctor: None			

六、灭火措施：

V. Fire Fighting Measure.

适用灭火剂：Suitable extinguishing media Plenty of water, carbon dioxide gas, nitrogen gas, chemical powder fire extinguishing medium and fire foam
灭火时可能遭遇之特殊危害： Special Exposure Hazards: Corrosive gas may be emitted during fire
消防人员之特殊防护设备： Special Protection Equipment: Respiratory protection: Respiratory equipment of a gas cylinder style or protection-against-dust mask Hand protection: Protective gloves Eye protection: Goggle or protective glasses designed to protect against liquid splashes Skin and body protection: Protective cloth

六：泄漏处理方法：

VI. Accidental Release Measures

个人应注意事项： Personal Protection:	Remove spilled materials with protective equipment (protective glasses and protective gloves). Do not inhale the gas as much as possible. Moreover, avoid touching with as much as possible
环境注意事项： Environmental Protection:	Do not throw out into the environment.
清理方法：Methods for Cleaning up:	The spilled solids are put into a container. The leaked place is wiped off with dry cloth.

七、安全处置与储存方法：

VII. Handling and Storage

处置 Handling	Do not wet the battery with water, seawater, drink or acid; or expose to strong oxidizer. ·Do not damage or remove the external tube. ·Keep the battery away from heat and fire. ·Do not disassemble or reconstruct the battery; or solder the battery directly. ·Do not give a mechanical shock or deform. ·Do not use unauthorized charger or other charging method. Terminate charging when the charging process doesn’t end within specified time.
储存 Storage	Do not store the battery with water, seawater, strong acid or strong oxidizer.Avoid direct sunlight, high temperature, and high humidity.

八、暴露预防措施：

VIII. Exposure Control / Personal Protection

控制参数 Control Factor	ACGIH has not been mentioned control parameter of electrolyte	
个人防护设备 （接触该物质之人员应采取的防护措施） Personal Protection Equipment (measures taken by the personnel who are exposed to the material)	呼吸防护： Respiratory Protection:	通风 Ventilating
	手部防护： Hand Protection:	防护手套 Wear gloves
	眼部防护： Eye Protection:	None
	皮肤及身体防护： Skin & Body Protection:	防护服 Wear protective clothing.
防护措施 Protective measures	工作时不得进食、饮水、吸烟 Eating, drinking and smoking are not allowed during working.	

九、物理及化学性质（基本资料应填写清楚）：

IX. Physical and Chemical Properties / Characteristics (Fundamental information should be filled outclearly)

物质状态：固体 Appearance : Solid	形状：长方体 Form: cuboid
颜色：绿色/黑色 Color: Green/Black	气味：特殊气味基本无 Odor: Without special odor
分解温度：450° C Decomposition Temperature: 450° C for housing	燃烧性：V—0 Combustibility: V-0 for housing
使用温度：100度以下	水中溶解度：不溶
Use temperature: above 100 degree C,	Solubility in Water: Insoluble
密度： Specific Gravity:None	危险副产品：无 Hazardous by-product: None

十、安定性及反应性：

X. Stability and Reactivity

安定性 Stability	Stable under normal use
特殊情况下可能之危害反应 Special Conditions of Hazardous Reaction	None
应避免之状况 Conditions to Avoid	Prevent static during processing, high humidity
应避免之物质 Incompatibility	Conductive materials, water, seawater, strong oxidizers and strong acids
危害分解物 Hazardous Decomposition Products	Acrid or harmful gas is emitted during fire.

十一、毒性资料（如该物品属毒性物质，则应填写）：

XI. Toxicological Information (fill out this part if it is toxicological material)

毒性 Toxicity	LD50, oral - Rat 2,000mg/kg or more　　Irritating nature: Irritative to skin and eye
慢毒性成长期毒性 Chronic	None
特殊效应 Exceptional Effect	None

十二、生态资料：

XII. Ecological Information

可能之环境影响/环境流布： Since a battery cell and the internal materials remain in the environment, do not bury or throw out into the environment.

十三、废弃处置方法：

XIII. Disposal Information

废弃处置方法： Disposal information: Specified collection or disposal of lithium ion battery is required by the law like as "battery control law" in several nations. Collection or recycle of the battery is mainly imposed on battery's manufacturer or importer in the nations recycle is required.

十四、运送资料：

XIV. Transport Information

国际运送规定 International Transport Regulation	Air transportation: IATA-DGR, Class 9, UN-3480, Packing Instructions 965 section IA. When batteries are packaged with equipments or contained in equipments, UN-3481, Packing Instruction 966 or 967 Section I. Sea transportation: IMO-IMDG Code, Class 9, UN-3480 / UN-3481, Special Provision P903. Road/rail transportation: ADR/RID Codes, Class 9, UN-3480 / UN-3481, Packing Instructions P903
运送方法及注意事项 Special Transport Way and Note	In the case of transportation, avoid exposure to high temperature and prevent the formation of anycondensation. Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo pilesand wet by rain. The container must be handled carefully. Do not give shocks that result in a mark of hitting ona cell. Please refer to Section 7-HANDLING AND STORAGE also.

十五、法规资料：

XV. Regulation Information

适用法规： Applicable Regulation:1.US Department of Transportation 49 Code of Federal Regulations [USA] Dangerous Goods Regulations - 54th Edition Effective 1 January 2013: International Air Transport Association (IATA)

十六、其他资料

XVI. Other Information

参考文献 Reference	Supplier' s MSDS	
制表单位元 Reporting entity	名称：实验室 Name: lab department	
	地 址：常州市钟楼区经济开发区星港路65-6号 Add: NO.65-6 XinggangRoad.ZhonglouEconomicDevelop,ent Zone.Changzhou,Jiangsu,China 0519-88065051	
制表人 Prepared by	周卫 zhou wei	姓名（盖章） Name (seal)
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