Test Report

Client Name : HUIZHOU HEYING ELECTRONICS TECHNOLOGY CO., LTD

Client Address : 4TH FLOOR, JINZE INDUSTRIAL PARK, JINGU POWER, NO.41, HECHANG WEST ROAD, ZHONGKAI HIGH TECH ZONE, HUIZHOU CITY,GUANGDONG

Sample Name : Lithium ion battery

Model No. : 16340 3.7V 700mAh 2.59Wh

The above sample(s) and information were provided by the client.

SGS Job No. : CP22-026292 - SZ

Date of Sample Received : 16 May 2022

Testing Period : 16 May 2022 - 25 May 2022

Test Requested : Selected test(s) as requested by the client.

Test Method(s) : Please refer to next page(s).

Test Result(s) : Please refer to next page(s).

Result Summary :

Test Requested	Conclusion
European Directive 2006/66/EC and its Article 4 amendment of Directive 2013/56/EU– Heavy Metals Content in Batteries and Accumulators	PASS

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

scan to see the report

021AB68D

Jessie Li

Jessie Li
Approved Signatory

198 Kezhu Road,Scientech Park Guangzhou Economic & Technology Development District,Guangzhou,China 510663 t (86-20) 82155555 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

Test Result(s) :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN22-098207.001	Battery

Remarks :

(1) 1 mg/kg = 0.0001%
(2) MDL = Method Detection Limit
(3) ND = Not Detected (< MDL)
(4) "-" = Not Regulated

European Directive 2006/66/EC and its Article 4 amendment of Directive 2013/56/EU– Heavy Metals Content in Batteries and Accumulators

Test Method : SGS In House Method (GZTC CHEM-TOP-068), analysis was performed by ICP-OES or AAS or Hg-analyzer.

Test Item(s)	Limit	Unit	MDL	*001*
Cadmium (Cd)	0.0020	%(w/w)	0.0010	ND
Lead (Pb)	-	%(w/w)	0.0010	ND
Mercury (Hg)	0.0005	%(w/w)	0.0001	ND
Comment				**Pass**

Notes :

(1) Results shown are of total weight of the battery sample.
(2) According to the European Directive 2006/66/EC and its Article 4 amendment of Directive 2013/56/EU, all types of battery shall include the chemical symbol Lead when containing more than 0.004%of Pb.
Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w =0) stated in ILAC-G8:09/2019.

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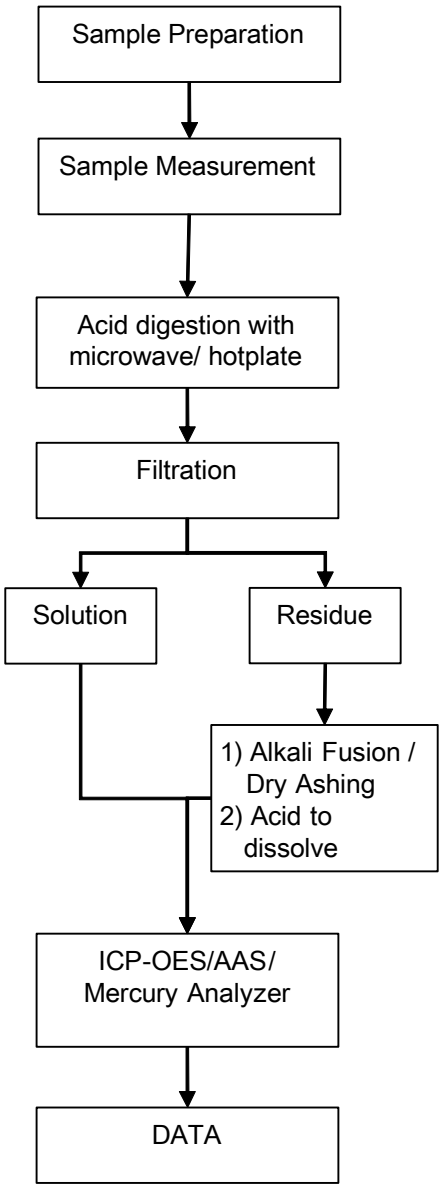
ATTACHMENTS

Battery Testing Flow Chart



SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Testing Center Chemical Laboratory
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Sample photo:

CAN22-098207.001

SGS authenticate the photo on original report only

*** End of Report ***

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空运 By Air

仅限货机
CAO

NO.212200224819476

CNAS 中国认可 检验 INSPECTION CNAS IB0071

货物运输条件鉴定书

Certification for Safe Transport of Chemical Goods

危险品

样品名称 ： 锂离子电池 16340 3.7V 700mAh 2.59Wh

Sample name: Lithium ion battery 16340 3.7V 700mAh 2.59Wh

委托单位 ： 惠州市和盈电子科技有限公司
Huizhou HeYing Electronics Technology Co., LTD

生产单位 ： 惠州市和盈电子科技有限公司
Huizhou HeYing Electronics Technology Co., LTD

上海化工院检测有限公司 检验检测专用章

Witness Better Life
SICIT 上海化工院检测有限公司
Shanghai Institute of Chemical Industry Testing Co., Ltd

空运 By Air

空运 By Air

货物运输条件鉴定书

Certification for Safe Transport of Chemical Goods

NO. 212200224819476

样品名称 Sample Name	中文 Chinese	锂离子电池 16340 3.7V 700mAh 2.59Wh
	英文 English	Lithium ion battery 16340 3.7V 700mAh 2.59Wh
委托单位 Consignor		惠州市和盈电子科技有限公司 Huizhou HeYing Electronics Technology Co., LTD
生产单位 Manufacturer		惠州市和盈电子科技有限公司 Huizhou HeYing Electronics Technology Co., LTD
检验方法、程序 Inspection method and procedure		国际航空运输协会《危险品规则》63版 IATA Dangerous Goods Regulations (DGR) 63rd Edition
样品外观 Sample appearance		蓝色塑料薄膜外壳 Blue Plastic film shell
包装件信息 Package information		锂电池总净重≤10kg。 Lithium batteries total net weight≤10kg.

序号 NO.	电池种类 Battery type	型号 Model	容量Capacity /锂含量Li content	放置方式 Placement	单颗重量kg Unit weight	数量 Quantity
1	可充电锂离子单电芯电池 Rechargeable Li-ion single cell battery	16340	700mAh 2.59Wh	电池单独运输 Battery only	0.0186	400

鉴定结论 IDENTIFICATION CONCLUSION

1. 危险性识别(Hazards identification)

杂项。
Miscellaneous.

2. 空运按照国际航空运输协会《危险品规则》办理的类项(Suggestion according to IATA DGR)

Shipping name:Lithium ion batteries
Class or division:9
UN Number:UN3480

3. 包装要求(Packaging requirements)

按包装说明965第IB部分要求办理。
The goods are packaged according to the Packaging Instruction 965 section IB.

仅限货机
Cargo Aircraft Only

检验日期: Inspection Date: 2022-02-18　签发日期: Issue Date: 2022-02-18　生效日期: Effective Date: 2022-02-18

上海化工院检测有限公司 检验检测专用章 (28)

备注 Comment	/

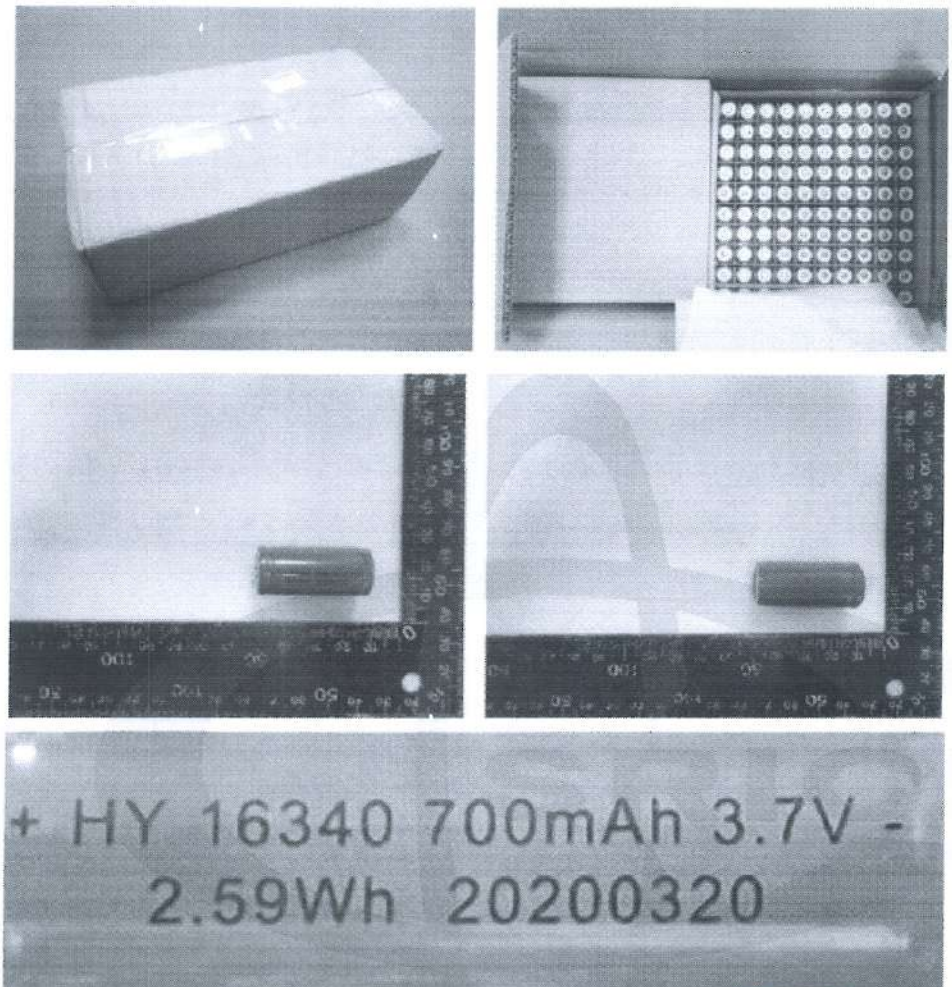
批准 Approver:　审核 Checker:　主检 Appraiser:

货物运输条件鉴定书

Certification for Safe Transport of Chemical Goods

NO. 212200224819476

序号 No.	检验结果及其他事项 Inspection results and other things
1	本报告所述锂电池按照《危险品规则》(63版)[以下简称DGR] 3.9.2.6.1(e)规定的质量管理体系进行制造。 本报告所述锂电池不属于因安全原因召回的锂电池。 本报告所述锂电池不进行以回收或处置为目的的航空运输，不属于废弃锂电池。 Lithium cells and batteries listed in this report were manufactured under the quality management program described in IATA DGR 63rd 3.9.2.6.1(e). Lithium cells and batteries listed in this report are not the defective cells or batteries returned to the manufacturer for safety reasons. Lithium cells and batteries listed in this report are not waste lithium cells or batteries, and they will not be shipped for recycling or disposal.
2	本报告所述锂电池已通过《联合国试验和标准手册》第III部分38.3小节相应测试要求。 包装件能够承受1.2m跌落试验。 Lithium cells and batteries listed in this report are of the types proved to meet the requirements of each applicable test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3. The package has passed the 1.2m drop test. UN38.3试验概要编号 The UN38.3 Test Summary No.(s) 812000100432761 详细信息请扫描右侧二维码。 Please scan the QR code on the right for more information.
3	锂电池完全封装在内包装内，位于坚固的刚性外包装中。 电池具有适当的防短路措施。 Lithium cells and batteries are packed in inner packagings that completely enclose the cell or battery and placed in a strong rigid outer packaging. Cells and batteries are properly protected to prevent short circuits.
4	按DGR IB部分托运的电池必须根据第8部分规定在托运人申报单中描述；并且当使用航空货运单时，货运单必须包含8.2.1和8.2.2中相关适用要求。 Cells or batteries shipped under the provisions of Section IB in IATA DGR must be described on a Shipper's Declaration as set out in Section 8, and the air waybill, when used, must contain the applicable information required by 8.2.1 and 8.2.2.
5	除使用9类锂电池危险性标签(DGR图7.3.X)外，每个包装件必须按DGR图7.1.C所示做耐久清晰的标记。 每个包装件必须按DGR7.1.4.1(a)和(b)要求标记，此外当7.1.4.1(c)有要求时还必须标明包装件净重。 每个包装件必须贴有“仅限货机”标签(DGR图7.4.B)。 Each package must be durably and legibly marked with the mark shown in Figure 7.1.C in IATA DGR in addition to the Class 9-Lithium Battery hazard label (Figure 7.3.X in IATA DGR). Each package must be marked in accordance with the requirements of 7.1.4.1(a) and (b) in IATA DGR and in addition the net weight when required by 7.1.4.1(c) must be marked on the package. Each package must be labelled with the "Cargo Aircraft Only" label(Figure 7.4.B in IATA DGR).
6	根据委托单位声明，本报告所述锂离子电池交付运输时，其荷电状态必须不超过额定容量的30%。 According to the statement of the consignor, lithium ion cells and batteries listed in this report must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated capacity.
7	电池不得与第1类爆炸品(1.4S项除外)，2.1项易燃气体，第3类易燃液体，4.1项易燃固体或5.1项氧化性物质等危险品包装在同一外包装或集合包装内。 Cells and batteries must not be packed in the same outer packaging or overpack with dangerous goods classified in Class 1 (explosives) other than Division 1.4S, Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids) or Division 5.1 (oxidizers).



报告结束

海 运
By Sea

NO.212200939604721

CNAS 中国认可 检验 INSPECTION CNAS IB0071

货物运输条件鉴定书

Certification for Safe Transport of Chemical Goods

锂电池类货物

样品名称 ： 锂离子电池 16340 3.7V 700mAh 2.59Wh

Sample name: Lithium ion battery 16340 3.7V 700mAh 2.59Wh

委托单位 ： 惠州市和盈电子科技有限公司
Huizhou HeYing Electronics Technology Co., LTD

生产单位 ： 惠州市和盈电子科技有限公司
Huizhou HeYing Electronics Technology Co., LTD

上海化工院检测有限公司 检验检测专用章

Witness Better Life
SICIT 上海化工院检测有限公司
Shanghai Institute of Chemical Industry Testing Co., Ltd

海 运
By Sea

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By Sea

货物运输条件鉴定书

NO. 212200939604721

Certification for Safe Transport of Chemical Goods

样品名称 Sample Name	中文 Chinese	锂离子电池 16340 3.7V 700mAh 2.59Wh
	英文 English	Lithium ion battery 16340 3.7V 700mAh 2.59Wh
委托单位 Consignor		惠州市和盈电子科技有限公司 Huizhou HeYing Electronics Technology Co., LTD
生产单位 Manufacturer		惠州市和盈电子科技有限公司 Huizhou HeYing Electronics Technology Co., LTD
检验方法、程序 Inspection method and procedure		国际海事组织《国际海运危险货物规则》(2020版) IMO International Maritime Dangerous Goods Code (2020 Edition)
样品外观 Sample appearance		蓝色塑料薄膜外壳 Blue Plastic film shell
包装件信息 Package information		重量≤30kg。 weight≤30kg.

序号 NO.	电池种类 Battery type	型号 Model	容量Capacity /锂含量Li content	放置方式 Placement
1	可充电锂离子单电芯电池 Rechargeable Li-ion single cell battery	16340	700mAh 2.59Wh	电池单独运输 Battery only

鉴定结论 IDENTIFICATION CONCLUSION

1. 危险性识别(Hazards identification)

锂离子电池。

Lithium ion battery.

2. 海运按照国际海事组织《国际海运危险货物规则》办理的类项(Suggestion according to IMO IMDG Code)

根据特殊规定188，该物品不受IMO IMDG Code其他条款限制。

The article is not subject to other provisions of IMO IMDG Code according to special provision 188.

3. 包装要求(Packaging requirements)

无。

None.

检验日期: Inspection Date: 2022-02-18　签发日期: Issue Date: 2022-02-18　生效日期: Effective Date: 2022-02-18

上海化工院检测有限公司 检验检测专用章 (28)

备注 Comment: /

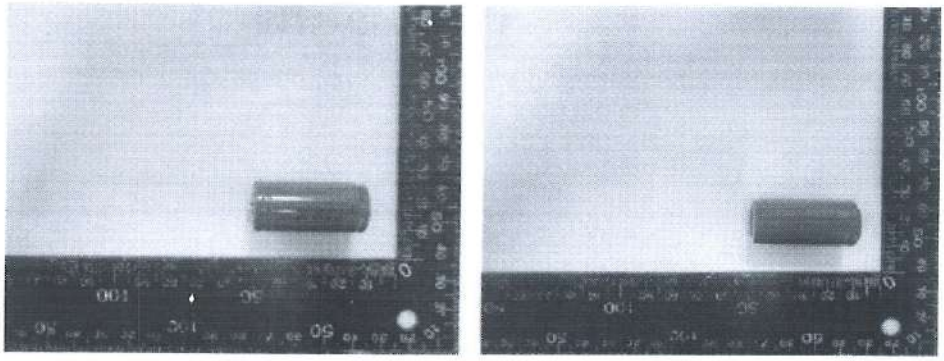
批准 Approver: 王宝　审核 Checker: 董荣雄　主检 Appraiser: 孙倩

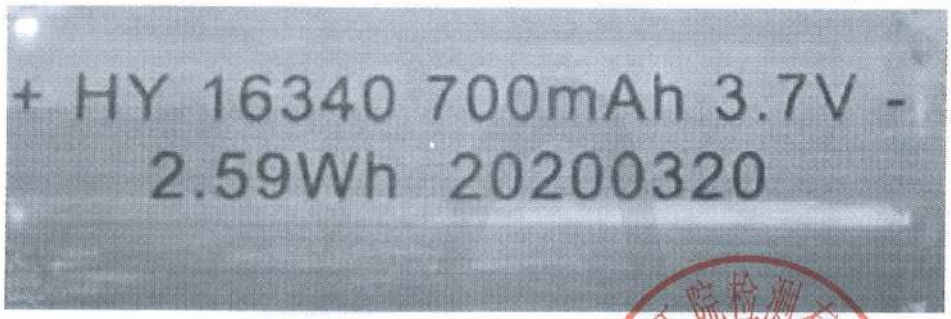
货物运输条件鉴定书

Certification for Safe Transport of Chemical Goods

NO. 212200939604721

序号 No.	检验结果及其他事项 Inspection results and other things
1	本报告所述锂电池按照《国际海运危险货物规则》(2020版) 2.9.4.5规定的质量管理体系进行制造。 Lithium cells and batteries listed in this report were manufactured under the quality management program described in IMDG CODE 2020 EDITION 2.9.4.5 .
2	本报告所述锂电池已通过《联合国试验和标准手册》第III部分38.3小节相应测试要求。 包装件能够承受1.2m跌落试验。 Lithium cells and batteries listed in this report are of the types proved to meet the requirements of each applicable test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3. The package has passed the 1.2m drop test. UN38.3试验概要编号 The UN38.3 Test Summary No.(s) 812000100432761 详细信息请扫描右侧二维码。 Please scan the QR code on the right for more information.
3	锂电池完全封装在内包装内，位于坚固的外包装中。 Lithium cells and batteries are packed in inner packagings that completely enclose the cell or battery and placed in a strong outer packaging.
4	电池具有适当的防短路措施。 Cells and batteries are properly protected to prevent short circuits.
5	每个包装件必须标示恰当的锂电池标记。 装有锂电池的包装件，符合国际民航组织《危险物品安全航空运输技术细则》第4部分第II章的包装说明965或968第IB部分规定的，黏贴5.2.1.10(锂电池标记)和5.2.2.2所示的9A型标签，应视为符合本特殊规定188的规定。 Each package shall be marked with the appropriate lithium battery mark. Packages containing lithium batteries packed in conformity with the provisions of part 4, chapter II, packing instructions 965 or 968, section IB of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by air that bear the mark as shown in 5.2.1.10(lithium battery mark) and the label shown 5.2.2.2, Model No.9A shall be deemed to meet the provisions of this special provision 188.
6	/
7	/





报告结束

Report No.: HY20220222SDS01

SAFETY DATA SHEET

Product Name: Li-Ion Battery

Type/Model: 16340 3.7V 700mAh 2.59Wh

Revision Date: Feb. 22, 2022

惠州市和盈电子科技有限公司

Huizhou HeYing Electronics Technology Co., LTD

SECTION1:Identification of the substance/mixture and of the company/undertaking

1.1ProductIdentifier

Name of Product: Lithium-ion rechargeable pack battery

1.2Other means of identification

ProductModels: 16340 3.7V 700mAh 2.59Wh
NominalVoltage:3.7V
Nominal capacity:700mAh
NominalPower:2.59Wh
Weight: about 18.5g

1.3Recommendeduseofthe chemical and restriction on use

Recommended Use: Rechargeable Li-ion Battery
Restriction on Use: No information available

1.4Information Of Company:

Company Name: Huizhou HeYing Electronics Technology Co., LTD
Address: 4th floor, Jinze Industrial Park, Jingu power, No.41, Hechang West Road, Zhongkai high tech Zone, Huizhou City,GuangDong
Zip code:516006
Contact person: Lei Chuan
Tel:+86-18819679588
E-mail: scleich@qq.com

1.5EmergencyTelephone

+86-18819679588

SECTION2.Hazard(s) Identification

2.1Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard(29CFR1910.1200).This product is an article which is a sealed battery and as such does not require an SDS per the OSHA hazard communication standards unless ruptured.The hazards indicated are for a ruptured battery.

Acute toxicity –Oral	Category4
Acute toxicity-Dermal	Category4
Skin corrosion/irritation	Category1Sub-categoryC
Serious eye damage/eye irritation	Category1
Skin sensitization	Category1
Carcinogenicity	Category2
Specific target organ toxicity(repeated exposure)	Category1

2.2 Label elements

2.2.1Signal Word Dange

2.2.2Hazard Statements

Harmful if swallowed
Toxic if swallowed
Harmful in contact with skin
Cause severe skin burns and eye damage
May cause an allergic or reaction

May cause cancer
Cause damage to organs
May cause respiratory irritation

2.2.3Symbol

This product is an article which contains a chemical substance. Safety information is given for exposure to the article as solid. Intended use of the product should not result in exposure to the chemical substance, This is a battery. In case of rupture: the above hazards exist.

2.3PrecautionaryStatements

2.3.1PrecautionaryStatements –Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use personal protective equipment as required.
Wash face, hands and any exposed skin thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Keep away from flames and hot surface –no smoking.
Do not breath dust/fume/gas/mist/vapors/spray.
Do not eat, drink or smoke when using this product.
Wear protective gloves

2.3 .2PrecautionaryStatements –Response

If exposed or connected: Get medical advice/attention. Specific treatment(see supplemental first aid/instruction on this label).

Skin

If on skin: wash with plenty of soap and water. Take off contaminated clothing and water Before reuse, if skin irritation or rash occurs: get medical advice/attention if feel unwell.

Eye

If in eyes: Rinse cautiously with water for several minutes, remove contact lenses, if present And easy to do, Continue rinsing. Call a poison center or doctor/physician.

Inhalation

If inhalation: if breathing is difficult, remove victim to fresh air and keep at rest in a position Comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or doctor/physician.

Ingestion

If swallowed: rinse mouth, do not induce vomiting ,Call a poison center or doctor/physician if Feel unwell.

2.3.3PrecautionaryStatements –Storage

Store locked up

2.3.4PrecautionaryStatements –Disposal

Dispose of contents/container to an approved waste disposal plant.

2.4Hazards not otherwise classified (HNOC)

Not applicable

2.5 Unknown Toxicity

10% of the mixture consists of ingredient(s) of unknown toxicity.

2.6Other information

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.7Interactions with other chemicals

Use of alcoholic beverages may enhance toxic effect.

Chemical Composition	Chemical Formula	Weight(%)	CAS Number
Lithium Nickel Oxide	$LiNiO_2$	16.87%	58581-45-0
Lithium cobaltate	$LiCoO_2$	7.55%	12190-79-3
Lithium Manganate	$LiMn_2O_4$	22.71%	12057-17-9
Graphite	$C_{24}X_{12}$	23.45%	7782-42-5
Polyvinylidene Fluoride (PVDF)	$C_2H_2F_2$	1.15%	24937-79-9
Aluminium	Al	4.08%	7429-90-5
Styrene Butadiene Rubber (SBR)	$C_{36}H_{42}X_2$	0.49%	61789-96-6
Carboxymethylcellulose	$C_6H_{12}O_6$	0.39%	9000-11-7
Copper	Cu	12.78%	7440-50-8
Nickel	Ni	1.26%	7440-02-0
Lithium Hexafluorophosphate	$LiPF_6$	3.89%	21324-40-3
Polyethylene	(C3H6)n	5.38%	9002-88-4

SECTION 3.Composition/ Information on Ingredients

4. First Aid Measures

4.1 General Advice

First aid is Applicable only in the case of cell rupture.

4.1.1 Eye contact

If symptoms persist, call a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eyes wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area.

4.1.2Skin Contact

Wash off immediately with plenty of water and soap for at least 15 minutes. In the case of skin Irritation or allergic reaction see a physician. May cause an allergic skin reaction.

4.1.3Inhalation of Vented Gas

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substances; give artificial respiration with the aid of a pocket mask equipped with a one-way value or other proper respiratory medical device. If breathing is difficult,(trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get medical attention immediately if symptoms occur.

4.1.4Ingestion

Do not induce vomiting. Rinse mouth immediately and drink plenty of water. Never give Anything by mouth to an unconscious person. Call a physician or poison control center immediately.

4.1.5Self-protection of the first aider

Ensure that medical personnel are aware of the material (s) involved. Take precaution to Protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personnel protective equipment as required. Wear personnel protective clothing (see section8).

4.2Most important symptoms and effects, both acute and delayed

Burning sensation, Itching. Rashes. Hives, Coughing.

4.3Indication of any immediate medical attention and special treatment needed

Notes to physician

Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or Esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal Edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitization of susceptible persons. Treat symptomatically.

SECTION5.Fire–Fighting Measures

5.1Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

5.3Specific Hazards Arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/ or explosion do not breathe fumes. May cause sensitization by in halation and skin contact. Product is or contains a sensitizer.

Hazardous Combustion products

Carbon oxides.

5.4 Explosion Data

Sensitivity to Mechanical Impact :No.
Sensitivity to Static Discharge: No.

5.5Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/IOSH (approved or equivalent) and full protective gear. Move containers from fire area if you can do It without risk.

SECTION6. Accidental ReleaseMeasures

6.1Persona precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2Environmental Precautions

Refer to protective measures listed in Sections 7 and 8.Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

6.3Methodsfor containment

Prevent further leakage or spillage if safe to do so. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

6.4Methods for cleaning up

Pick up and transfer to properly labeled containers.

SECTION7.Handling and Storage

7.1Precaution for safe handling

In case of rupture, use personal protection equipment. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray.

7.2Conditions for safes torage, including any incompatibilities

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Incompatible products

Strong acids. Strong oxidizing agent. Strong bases.

SECTION 8. Exposure Controls/Personal Protection

8.1 Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Graphite 7782-42-5	TWA:2 mg/m3 respirable fraction all forms except graphite fibers	TWA:15 mg/m3total dust synthetic TWA:5mg/m3 respirable fraction synthetic(vacated) TWA:2.5 mg/m3 respirable Dust natural(vacated) TWA:10 mg/m3 total dust synthetic(vacated) TWA:5 mg/m3 respirable fraction synthetic TWA:15 mppcf natural	IDLH:1250 mg/m3 TWA2.5 mg/m3(resp)
Cobalt lithium manganese nickel oxide 182442-95-1	TWA:0.02mg/m3	-	
Lithium hexafluorophosphate 21324-40-3	TWA:2.5mg/m3F	TWA:2.5mg/m3F TWA:2.5mg/m3 dust(vacated) TWA:2.5mg/m3	-
Copper	TWA:0.2 mg/m3fume	TWA:0.1 mg/m3fume	IDLH:100 mg/m3dust,

7440-50-8	TWA:1mg/m3 Cu dust and mist	TWA:1 mg/m3 dustand mist (vacated)TWA:0.1mg/m3 Cu dust, fume, mist	Fume and mist TWA:1 mg/m3dustand mist TWA:0.1 mg/m3fume
Aluminum 7429-90-5	TWA:1mg/m^3	TWA: 15mg/m^3total dust TWA:5mg/m^3 respirable fraction (vacated) TWA:15mg/m^3total dust(vacated) TWA:5mg/m^3respirable fraction (vacated)TWA:5mg/m^3Al Aluminum	IDLH:10mg/m^3 Total dust TWA:5mg/m^3 Respirable dust

ACGIH TLV: American Conference of Governmental Industrial Hygienists-Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration-Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines:

Vacated limits revoked by the court of Appeals decision in AFL-CLOv.OSHA,965F,2d 962(11th Cir.,1992)See section 15 for national exposure control parameters.

8.2Appropriate engineering controls

Engineering Measures:
Showers、Eyewash stations、Ventilation systems

8.3Individual protection measures, such as personal protective equipment

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Eye /face protection: if splashes are likely to occur: Wear safety glasses with side shields(or goggles).None required for consumer use.

Skin protection: Wear protective gloves and protective clothing. Long sleeved clothing Imperious gloves.

Hygiene Measure: Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use. No information available.

SECTION9. Physical and Chemical Properties

Physical State: Solid

Color: Blue

Odor: Odorless

Odor Threshold: No information available

pH: No data available

Melting/freezing point: No data available

Boiling point/boiling range: No data available

Flash Point: No data available

Evaporation Rate: No data available

Flammability(Solid, gas): No data available

Flammability Limit in Air:

Upper flammability limit: No data available

Lower flammability limit: No data available

Vapor pressure: No data available

Vapor density: No data available

Specific Gravity: No data available

Solubility: Insoluble in water

Partition coefficient: n-octanol/water: No data available

Autoignition temperature: No data available

Decomposition temperature: No data available

Kinematic viscosity: No data available

Dynamic viscosity: No data available

SECTION10.Stability and Reactivity

Reactivity:
No data available

Chemical stability:
Stable under recommended storage conditions.

Possibility of Hazardous Reactions:
None under normal processing.

Hazardous Polymerization:
Hazardous polymerization dose not occur.

Conditions to avoid:
Do not subject battery to mechanical shock. Keep away from open flames, high temperature.

Incompatible materials:
Strong acids, Strong oxidizing agents. Strong bases.

Hazardous decomposition products:
Carbon oxides

SECTION11.Toxicological Information

11.1 Information on likely routes of exposure

Product information:
Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture:

Inhalation:

Specific test data for the substance or mixture is not available. Corrosive by inhalation(base on components). Inhalation of corrosion fumes/gases may cause coughing, choking, headache, dizziness and weakness for several hour. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure and increased heart rate. Inhaled corrosion substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract.

Eye Contact:

Specific test data for the substance or mixture is not available. Cause burns. (based on components).Corrosion to the eyes and may cause severe damage including blindness. Cause serious eye damage. May cause irreversible damage to eyes.

Skin Contact:

Specific test data for the substance or mixture is not available. Corrosion (based on components).Cause burns. Toxic in contact with skin. May be absorbed through the skin in harmful amounts.

Ingestion:

Specific test data for the substance or mixture is not available. Cause burns. (based on components). Ingestion cause burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. Maybe fatal if swallowed and enters airways. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

Component Information

Chemical Name	OralLD50	DermalLD50	InhalationLC50
Graphite 7782-42-5	> 10000mg/kg (Rat)	-	-

11.2Information on toxicological effects

Symptoms:
Erythema(skin redness).May cause redness and tearing of eyes. Itching. Rashes. Hives. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling Of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/or wheezing.

11.3Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization: May cause sensitization of susceptible person, May cause sensitization by skin

contact. May cause sensitization by inhalation.

Mutagenic Effects: No information available.

Carcinogenicity: the table below whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Cobalt lithium manganese nickel oxide 182442-95-1	A3	Group2B		X

ACGIH(American Conference of Governmental Industrial Hygienists)
A3-AnimalCarcinogen
IARC(International Agency for research on Cancer)
Group2B- Possibly Carcinogenic to humans
NTP(National Toxicology Program)Reasonably Anticipated-reasonably anticipated to be a Human Carcinogenic.
OSHA(Occupational safety and Health Administration of the US Department of Labor)
X-Present

Reproductive Toxicity: No information available.

STOT- single exposure: No information available.

STOT-repeated exposure: Cause damage to organs through prolonged or repeated exposure. Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29CFR 1910.1200),this product has been determined to cause systemic target organ toxicity from chronic or repeated exposure. (STOT RE)

Chronic Toxicity: Prolonged exposure may cause chronic effects. Repeated contact may cause allergic reactions in very susceptible persons. Contain a known or suspected carcinogen. Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Target Organ Effects: Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Blood. Central Nervous System(CNS). Kidney. Liver. Lungs. Nasal cavities.

Aspiration Hazard: No information available.

11.4Numerical measures of toxicity product information

The following values are calculated based on chapter 3.1of the GHS document
ATE mix(oral): 2900mg/kg

SECTION12. Ecological Information

Ecotoxicity： Water hazard class1(Self-assessment): slightly hazardous for water.

Chemical name	Toxicity to Aglae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna(Water Flea)
Cooper 7440-50-8	96h EC50:0.31-0.045mg/l	96h LC50:0.068-0.0156mg/L (pimephales promelas)		48h EC50:=0.03mg

(pseudokirchneriella subcapitata)	96h LC50:=0.112mg/L(Poecilia reticulate)	/l
72h EC50:0.426-0.0535mg/l (pseudokirchneriella subcapitata)	96h LC50=0.3mg/L(Cyprinusmarpio) 96h LC50=0.8mg/L((Cyprinusmarpio) 96h LC50=1.25mg/L(Lepomismacrochirus)96h LC50=0.052mg/L(Oncorhynchus mykiss)96h LC50=0.2mg/L(Pimephalespro melas)96h LC50: < 0.3mg/L(Pimephalespromelas)	

Persistence and Degradability: No information available

Bioaccumulation: No information available

Other adverse effects: No information available

SECTION13.Disposal Considerations

13.1Waste treatment methods

Disposal methods:

This material, as supplied, is not a hazardous waste according to Federal regulations(40 CFR 261).This material could become a hazardous waste if it is mixed with or otherwise comes in Contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements. Should not be released into the environment.

Contaminated Packaging:

Dispose of in accordance with federal, state and local regulations.

California Hazardous Waste Codes 141

This product contains one or more substances that are listed with the State of California as a Hazardous waste.

Chemical Name	California Hazardous Waste
Copper7440-50-8	Toxic
Aluminum 7429-90-5	Ignitable powder
Cobalt lithium manganese nickel oxide 182442-95-1	Toxic

SECTION14.Transportation Information

According to Packing Instruction 965-970 of IATA DGR 57th Edition for transportation, the

Special provision 188 of IMDG. The batteries should be securely packed and protected against short-circuits.Examine whether the package of the containers are integrate and tighten closed before transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles. Don't put the goods together with oxidizer and chief food chemicals. The transport vehicle should prevent exposure, rain and high temperature. For stopovers, the Vehicle should be away from fire and heat sources. When transported by sea, the assemble place should keep away from bedroom and kitchen, and isolated from the engine room, Power and fire sources. Under the condition of road transportation, the driver should drive in Accordance with regulated route, don't stopover in the residential area and congested area. Forbid to use wooden, cement for bulk transport:

Lithium batteries shipped as "Lithium batteries", "Lithium batteries packed with equipment", or" Lithium batteries contained in equipment" may not be classified as "Dangerous Goods" when shipped in accordance with"PI965-967 section II of IATA-DGR "or" special provision 188 of IMO-IMDG Code"

DOT:NOT REGULATED

Proper Shipping Name: NON REGULATED

Emergency Response Guide Number: 147

Hazard Class: N/A

ICAO: Not regulated

IATA:

1. Proper Shipping Name: Lithium ion batteries packed with equipment

Hazard Class: N/A

UN Number: Not restricted

Packaging requirement: According to IATA DGR 57th Edition (Effective 1 January-31December 2016), PACKING INSTRUCTION 966 of section II for transportation.

2. Proper Shipping Name: Lithium ion batteries

UNNumber:UN3480

Hazard Class:9

Packaging requirement: According to IATA DGR 57th Edition(Effective 1 January-31December 2016), PACKINGIN STRUCTION 965 of section IB for transportation.

IMDG/IMO: Not regulated

Proper Shipping Name: NON REGULATED

Hazard Class: N/A

EmsNo.:F-A,S-1

RID: Not regulated

ADR: Not regulated

AND: Not regulated

SECTION15.Regulatory information

15.1InternationalInventories

TSCA Complies
DSL All components are listed either on the DSL or NDSL.
TSCA–United State Toxic Substance Control Act Section8(b)Inventory
DSL/NDSL–Canadian Domestic Substance List/Non-Domestic Substance List

15.2 US Federal Regulations

SARA313: Section313 of Title III of the superfund Amendments and Reauthorization Act of 1986(SARA).This product contains a chemical or chemicals which are subject to the reporting Requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No.	Weight (%)	SARA313-Threshold values(%)
Cobalt lithium manganese nickel oxide	182442-95-1	40-45	0.1
Copper	7440-50-8	5-10	1.0
Aluminum	7429-90-5	2-10	1.0

15.3SARA 311/312Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

15.4CWA (Clean Water Act)

This product contain the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA- Toxic Pollutants	CWA -Priority Pollutants	CWA - Hazardous Substances
Copper7440-50-8				
Cobalt lithium manganese nickel oxide182442-95-1		X	X	
		X	X	

15.5CERCLA

This material, as supplied, contain one or more substances regulate as a hazardous under the Comprehensive Environmental Response Compensation and Liability Act(CERCLA)(40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Copper 7440-50-8	5000lb		RQ5000lbfinal RQ RQ2270kgfinal RQ

15.6US State Regulations

CaliforniaProposition65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Cobalt lithium manganese nickel oxide 182442-95-1	Carcinogen

U.S State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Graphite7782-42-5	×	×	×		
Cobalt lithium manganese nickel oxide 182442-95-1			×	×	×
Copper7440-50-8	×	×	×	×	×
Aluminum7429-90-5	×	×	×	×	

15.7International Regulations

Canada
WHMIS Hazard Class
Non-controlled

SECTION16.OtherInformation

According standard：

GB/T 16483-2008 Safety data sheet for chemical products Content and order of sections ISO11014:2009(E) Safety data sheet for chemical products–Content and order of sections 2012OSHA Hazard Communication Standard (29CFR1910.1200)

Disclaimer:

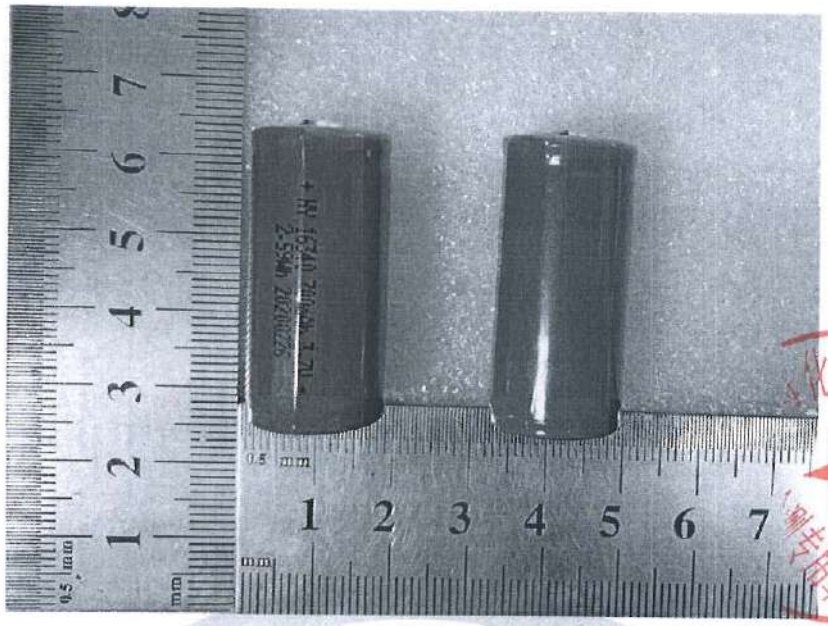
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used material used in combination with any other materials or in any process, unless specified in the test.

UN38.3 试验概要
UN38.3 Test Summary

812000100432761

单位信息 Company information			
委托单位 Consignor	惠州市和盈电子科技有限公司 Huizhou HeYing Electronics Technology Co., LTD 惠州市仲恺高新区和畅西二路 41 号厂房四楼部分 Part of the fourth floor of the factory building of No. 41, Changxi Second Road, Zhongkai High-tech Zone, Huizhou City 18819679588 SCLEICH@QQ.COM /		
生产单位 Manufacturer	惠州市和盈电子科技有限公司 Huizhou HeYing Electronics Technology Co., LTD 惠州市仲恺高新区和畅西二路 41 号厂房四楼部分 Part of the fourth floor of the factory building of No. 41, Changxi Second Road, Zhongkai High-tech Zone, Huizhou City 18819679588 SCLEICH@QQ.COM /		
测试单位 Test lab	上海化工院检测有限公司 Shanghai Research Institute of Chemical Industry Testing Co., Ltd. 中国.上海.普陀区云岭东路 345 号，200062 No.345 East Yunling Road, Putuo, Shanghai, China 200062 86-21-31765555 battery@ghs.cn www.ghs.cn		
电池信息 Battery information			
名称 Name	锂离子电池 Lithium ion battery	品牌 Brand	/
型号 Type	16340	原始测试型号 Original tested type	/
标称电压(V) Nominal voltage	3.7	容量/能量 Capacity/energy	700mAh 2.59Wh
描述 Description	可充电锂离子单电芯电池 Rechargeable Li-ion single cell battery	锂含量(g) Li content	/
质量(kg) Mass	0.0186	外观 Appearance	蓝色圆柱型塑料薄膜外壳 blue cylinder plastics film shell
测试信息 Test information			
原报告编号 Original test report No.	1120030086	测试报告日期 Date of test report	2020-04-03
测试标准 Test standard	联合国《关于危险货物运输的建议书 试验和标准手册》第 38.3 章 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria 38.3		ST/SG/AC.10/11/Rev.6/Amend.1
T.1 高度模拟 Altitude simulation	合格 Passed	T.2 温度测试 Thermal test	合格 Passed
T.3 振动测试 Vibration	合格 Passed	T.4 冲击测试 Shock	合格 Passed
T.5 外部短路 External short circuit	合格 Passed	T.6 挤压 Crush	合格 Passed
T.7 过度充电 Overcharge	合格 Passed	T.8 强制放电 Forced discharge	合格 Passed
38.3.3 (f)	/	38.3.3 (g)	/

样品图片 Sample Picture



结论 Conclusion	测试样品符合联合国《关于危险货物运输的建议书试验和标准手册》ST/SG/AC.10/11/Rev.6/Amend.1 38.3 标准要求。The tested samples meet the requirements of test items of the UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6/Amend.1 38.3
备注 Remark	/

签名 Signature 职务 Title	王寅 副总工程师 Vice chief engineer	签发日期 Issued date	2020-04-09

-验证码:628667-

报告结束

CNAS 中国认可 检测 TESTING CNAS L0748

CMA 170014233963

NO.1120030086

检 测 报 告

Test Report

样品名称： 锂离子电池 16340 3.7V 700mAh 2.59Wh

Name of Sample: Lithium ion battery 16340 3.7V 700mAh 2.59Wh

委托单位: 惠州市和盈电子科技有限公司

Consignor: Huizhou HeYing Electronics Technology Co., LTD

上海化工院检测有限公司

Shanghai Research Institute of Chemical Industry Testing Co., Ltd.

上海化工院检测有限公司
检 测 报 告

Shanghai Research Institute of Chemical Industry
Testing Co., Ltd. Test Report

NO. 1120030086

样品名称 Name of Sample	中文 Chinese	锂离子电池 16340 3.7V 700mAh 2.59Wh		
	英文 English	Lithium ion battery 16340 3.7V 700mAh 2.59Wh		
样品编号 Sample No.	1120030086			
委托单位 Consignor	惠州市和盈电子科技有限公司 Huizhou HeYing Electronics Technology Co., LTD			
生产单位 Manufacturer	惠州市和盈电子科技有限公司 Huizhou HeYing Electronics Technology Co., LTD			
检测方法 Test method	联合国《关于危险货物运输的建议书 试验和标准手册》 ST/SG/AC.10/11/Rev.6 Amend.1 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3			
判定标准 Criterion	联合国《关于危险货物运输的建议书 试验和标准手册》 ST/SG/AC.10/11/Rev.6 Amend.1 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3			
样品外观 Appearance	蓝色圆柱型塑料薄膜外壳 Blue Cylinder plastics film shell			
样品接受日期 Accepted Date	2020-03-04	检测起迄日期 Test Date	2020-03-11 ～ 2020-04-02	
检测项目 Test Items	高度模拟;热测试;振动;冲击;外短路;挤压;过充电;强制放电 Altitude simulation, Thermal test, Vibration, Shock, External short circuit, Crush, Overcharge, Forced discharge			
检测结论 Conclusion	经检测，该样品符合联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3标准要求。 The sample has passed the test items of UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 38.3 生效日期(Date) 2020-04-03			
备注 Comment	可充电单电芯电池Rechargeable Single Cell Battery./			
委托单位地址 Consignor Address	/		邮政编码 Post Code	516006

批准 Approver: 张小秋　审核 Checker: 陈建峰　编制 Compiler: 周欣

职务 Title: 副总工程师(Vice chief engineer)

序号 No.	检测项目名称 Name of Test Items	标准要求或标准条款号 Standard requirement or The Clause Number of Standard	检测结果 Test Result	本项结论 Conclusion	备注 Remark
1	高度模拟 Altitude simulation	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.1 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.1	见附表 1 See Appendix 1	合格 Passed	/
2	热测试 Thermal test	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.2 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.2	见附表 2 See Appendix 2	合格 Passed	/
3	振动 Vibration	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.3 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.3	见附表 3 See Appendix 3	合格 Passed	/
4	冲击 Shock	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.4 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.4	见附表 4 See Appendix 4	合格 Passed	/
5	外短路 External short circuit	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.5 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.5	见附表 5 See Appendix 5	合格 Passed	/
6	挤压 Crush	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.6 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.6	见附表 6 See Appendix 6	合格 Passed	/
7	过充电 Overcharge	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.7 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.7	见附表 7 See Appendix 7	合格 Passed	/
8	强制放电 Forced discharge	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.8 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.8	见附表 8 See Appendix 8	合格 Passed	/

检测环境条件 Test Environment Condition	环境温度:21℃-23℃;环境湿度:/% Ambient temperature:21℃-23℃;Ambient humidity:/%				
分包检验情况 Subcontracted Test Condition	检测项目 Test Item	/			
	分包实验室 Subcontracted Laboratory	名称 Name	/	邮编 Post Code	/
		地址 Address	/	电话 Tel	/

上海化工院检测有限公司
检 测 报 告 - 附表 1
SRICI Testing Co., Ltd. Test Report — Appendix 1

NO. 1120030086

序号 No.	1	检测项目名称 Name of Test Items		高度模拟 Altitude simulation				
样品编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	18.4152	4.17	18.4137	4.16	0.01	99.76	O
002	1CYC完全充电 1CYC Fully charged	18.4442	4.17	18.4430	4.16	0.01	99.76	O
003	1CYC完全充电 1CYC Fully charged	18.5020	4.17	18.5018	4.16	0.00	99.76	O
004	1CYC完全充电 1CYC Fully charged	18.4807	4.18	18.4799	4.17	0.00	99.76	O
005	1CYC完全充电 1CYC Fully charged	18.3991	4.17	18.4003	4.16	0.00	99.76	O
006	25CYC完全充电 25CYC Fully charged	18.5237	4.16	18.5225	4.16	0.01	100.00	O
007	25CYC完全充电 25CYC Fully charged	18.4482	4.17	18.4476	4.16	0.00	99.76	O
008	25CYC完全充电 25CYC Fully charged	18.5410	4.17	18.5396	4.16	0.01	99.76	O
009	25CYC完全充电 25CYC Fully charged	18.4195	4.17	18.4196	4.16	0.00	99.76	O
010	25CYC完全充电 25CYC Fully charged	18.4928	4.17	18.4921	4.16	0.00	99.76	O
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备注：L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。
Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

上海化工院检测有限公司
检 测 报 告 - 附表 2

SRICI Testing Co., Ltd. Test Report — Appendix 2 NO. 1120030086

序号 No.	2	检测项目名称 Name of Test Items		热测试 Thermal test				
样品编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	18.4137	4.16	18.4052	4.10	0.05	98.56	O
002	1CYC完全充电 1CYC Fully charged	18.4430	4.16	18.4332	4.10	0.05	98.56	O
003	1CYC完全充电 1CYC Fully charged	18.5018	4.16	18.4922	4.10	0.05	98.56	O
004	1CYC完全充电 1CYC Fully charged	18.4799	4.17	18.4703	4.10	0.05	98.32	O
005	1CYC完全充电 1CYC Fully charged	18.4003	4.16	18.3903	4.10	0.05	98.56	O
006	25CYC完全充电 25CYC Fully charged	18.5225	4.16	18.5129	4.09	0.05	98.32	O
007	25CYC完全充电 25CYC Fully charged	18.4476	4.16	18.4385	4.10	0.05	98.56	O
008	25CYC完全充电 25CYC Fully charged	18.5396	4.16	18.5306	4.09	0.05	98.32	O
009	25CYC完全充电 25CYC Fully charged	18.4196	4.16	18.4088	4.10	0.06	98.56	O
010	25CYC完全充电 25CYC Fully charged	18.4921	4.16	18.4826	4.10	0.05	98.56	O
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备注：L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。
Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

上海化工院检测有限公司
检 测 报 告－附表 3

SRICI Testing Co., Ltd. Test Report—Appendix 3 NO. 1120030086

序号 No.	3	检测项目名称 Name of Test Items		振动 Vibration				
样品编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	18.4052	4.10	18.4028	4.09	0.01	99.76	O
002	1CYC完全充电 1CYC Fully charged	18.4332	4.10	18.4302	4.09	0.02	99.76	O
003	1CYC完全充电 1CYC Fully charged	18.4922	4.10	18.4936	4.09	0.00	99.76	O
004	1CYC完全充电 1CYC Fully charged	18.4703	4.10	18.4708	4.10	0.00	100.00	O
005	1CYC完全充电 1CYC Fully charged	18.3903	4.10	18.3913	4.10	0.00	100.00	O
006	25CYC完全充电 25CYC Fully charged	18.5129	4.09	18.5146	4.09	0.00	100.00	O
007	25CYC完全充电 25CYC Fully charged	18.4385	4.10	18.4397	4.09	0.00	99.76	O
008	25CYC完全充电 25CYC Fully charged	18.5306	4.09	18.5309	4.09	0.00	100.00	O
009	25CYC完全充电 25CYC Fully charged	18.4088	4.10	18.4102	4.10	0.00	100.00	O
010	25CYC完全充电 25CYC Fully charged	18.4826	4.10	18.4857	4.09	0.00	99.76	O
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备注：L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。
Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

上海化工院检测有限公司
检 测 报 告 - 附表 4

SRICI Testing Co., Ltd. Test Report — Appendix 4 NO. 1120030086

序号 No.	4	检测项目名称 Name of Test Items		冲击 Shock				
样品编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	18.4028	4.09	18.4022	4.09	0.00	100.00	O
002	1CYC完全充电 1CYC Fully charged	18.4302	4.09	18.4317	4.09	0.00	100.00	O
003	1CYC完全充电 1CYC Fully charged	18.4936	4.09	18.4950	4.09	0.00	100.00	O
004	1CYC完全充电 1CYC Fully charged	18.4708	4.10	18.4727	4.09	0.00	99.76	O
005	1CYC完全充电 1CYC Fully charged	18.3913	4.10	18.3928	4.09	0.00	99.76	O
006	25CYC完全充电 25CYC Fully charged	18.5146	4.09	18.5166	4.09	0.00	100.00	O
007	25CYC完全充电 25CYC Fully charged	18.4397	4.09	18.4420	4.09	0.00	100.00	O
008	25CYC完全充电 25CYC Fully charged	18.5309	4.09	18.5327	4.09	0.00	100.00	O
009	25CYC完全充电 25CYC Fully charged	18.4102	4.10	18.4120	4.09	0.00	99.76	O
010	25CYC完全充电 25CYC Fully charged	18.4857	4.09	18.4875	4.09	0.00	100.00	O
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备注：L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。
Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

上海化工院检测有限公司
检 测 报 告－附表 5

SRICI Testing Co.， Ltd. Test Report—Appendix 5 NO. 1120030086

序号 No.	5	检测项目名称 Name of Test Items	外短路 External short circuit
样品编号 Sample No.	样品状态 Sample Status	样品表面最高温度 Max. External Temperature /℃	其他现象 Other Event
001	1CYC完全充电 1CYC Fully charged	59.6	O
002	1CYC完全充电 1CYC Fully charged	56.8	O
003	1CYC完全充电 1CYC Fully charged	60.5	O
004	1CYC完全充电 1CYC Fully charged	59.9	O
005	1CYC完全充电 1CYC Fully charged	56.3	O
006	25CYC完全充电 25CYC Fully charged	60.2	O
007	25CYC完全充电 25CYC Fully charged	57.3	O
008	25CYC完全充电 25CYC Fully charged	58.7	O
009	25CYC完全充电 25CYC Fully charged	58.9	O
010	25CYC完全充电 25CYC Fully charged	58.1	O
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备注：D-解体 R-破裂 F-起火 O-无解体、无起火、无破裂。

Note: D-Disassembly R-Ruptur F-Fire O-No Disassembly,No Fire & No Rupture.

序号 No.	6	检测项目名称 Name of Test Items	挤压 Crush
样品编号 Sample No.	样品状态 Sample Status	样品表面最高温度 Max. External Temperature /℃	其他现象 Other Event
011	1CYC 50%容量 1CYC 50% Capacity	21.2	O
012	1CYC 50%容量 1CYC 50% Capacity	21.4	O
013	1CYC 50%容量 1CYC 50% Capacity	21.2	O
014	1CYC 50%容量 1CYC 50% Capacity	21.3	O
015	1CYC 50%容量 1CYC 50% Capacity	21.2	O
016	25CYC 50%容量 25CYC 50% Capacity	21.2	O
017	25CYC 50%容量 25CYC 50% Capacity	21.3	O
018	25CYC 50%容量 25CYC 50% Capacity	21.4	O
019	25CYC 50%容量 25CYC 50% Capacity	21.5	O
020	25CYC 50%容量 25CYC 50% Capacity	21.2	O
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备注：D-解体 F-起火 O-无解体、无起火。
Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

上海化工院检测有限公司
检 测 报 告－附表 7

SRICI Testing Co.， Ltd. Test Report—Appendix 7 NO. 1120030086

序号 No.	7	检测项目名称 Name of Test Items	过充电 Overcharge
样品编号 Sample No.	样品状态 Sample Status	其他现象 Other Event	
041	1CYC完全充电 1CYC Fully charged	O	
042	1CYC完全充电 1CYC Fully charged	O	
043	1CYC完全充电 1CYC Fully charged	O	
044	1CYC完全充电 1CYC Fully charged	O	
045	25CYC完全充电 25CYC Fully charged	O	
046	25CYC完全充电 25CYC Fully charged	O	
047	25CYC完全充电 25CYC Fully charged	O	
048	25CYC完全充电 25CYC Fully charged	O	
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备注：D-解体 F-起火 O-无解体、无起火。

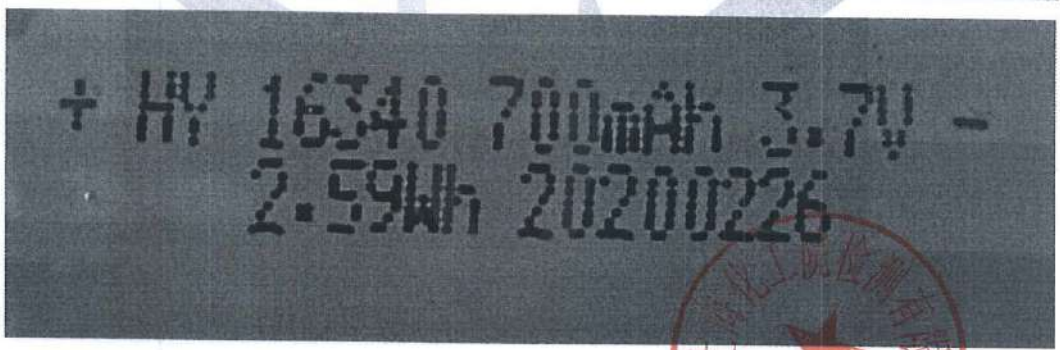
Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

上海化工院检测有限公司
检 测 报 告 - 附表 8

SRICI Testing Co., Ltd. Test Report — Appendix 8 NO. 1120030086

序号 No.	8	检测项目名称 Name of Test Items	强制放电 Forced discharge
样品编号 Sample No.	样品状态 Sample Status	其他现象 Other Event	
021	1CYC完全放电 1CYC Fully discharged	O	
022	1CYC完全放电 1CYC Fully discharged	O	
023	1CYC完全放电 1CYC Fully discharged	O	
024	1CYC完全放电 1CYC Fully discharged	O	
025	1CYC完全放电 1CYC Fully discharged	O	
026	1CYC完全放电 1CYC Fully discharged	O	
027	1CYC完全放电 1CYC Fully discharged	O	
028	1CYC完全放电 1CYC Fully discharged	O	
029	1CYC完全放电 1CYC Fully discharged	O	
030	1CYC完全放电 1CYC Fully discharged	O	
031	25CYC完全放电 25CYC Fully discharged	O	
032	25CYC完全放电 25CYC Fully discharged	O	
033	25CYC完全放电 25CYC Fully discharged	O	
034	25CYC完全放电 25CYC Fully discharged	O	
035	25CYC完全放电 25CYC Fully discharged	O	
036	25CYC完全放电 25CYC Fully discharged	O	
037	25CYC完全放电 25CYC Fully discharged	O	
038	25CYC完全放电 25CYC Fully discharged	O	
039	25CYC完全放电 25CYC Fully discharged	O	
040	25CYC完全放电 25CYC Fully discharged	O	

备注：D-解体 F-起火 O-无解体、无起火。
Note: D-Disassembly F-Fire O-No Disassembly & No Fire.



报告结束