



Pony Testing International Group

NO.: 10110821-017

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## I. SAMPLE DESCRIPTION

Sample Name	LITHIUM METAL BATTERY	Battery Type	R 435
Manufacturer	J N J CO.,LTD		
Client	J N J CO.,LTD		
Nominal Voltage	3.0V	Rated Capacity	45mAh
Limited charge Voltage	—	Charge current	—
Maximum continuous charge current	—	End charge current	—
Chemical component	Li/CFx	Maximum Discharge Current	6mA
Client date	2010.11.08	Finished date	2010.11.26

## II. STANDARD

RECOMMENDATIONS ON TRANSPORT OF DANGEROUS GOODS, MANUAL OF TEST AND CRITERIA, SECTON 38.3 LITHIUM BATTERIES (ST/SG/AC.10/11/Rev 4 section 38.3)

## III. TEST ITEM

1. Altitude simulation
2. Thermal test
3. Vibration
4. Shock
5. External short circuit
6. Impact
7. Forced discharge

## IV. CONCLUSION

ITEM	SAMPLE NUMBER		STANDARD	CONCLUSION
	Charged	Discharge		
Altitude simulation	N1~N10	N11~N20	UN38.3	PASS
Thermal test				PASS
Vibration				PASS
Shock				PASS
External short circuit				PASS
Impact	C1~C5	C6~C10		PASS
Forced discharge	—	C11~C20		PASS

The submitted samples were complied with the stated requirements of ST/SG/AC.10/11/Rev 4 section 38.3.

Compiled by: *cupy cao*      Checked by: *Kobe Wong*      Approved by: *zhang daoyin*

本检测单位保证检测的客观公正性，并对委托单位的商业秘密履行保密义务；委托单位对样品的代表性和资料的真实性负责，本检测单位仅对样品负责，委托单位对于检测结果的使用、使用所产生的直接或间接损失及一切法律后果，本检测单位不承担任何经济和法律责任；本《检测报告》如无PONY专用章和批准人签字或盖章，则无效；任何对本《检测报告》未经授权的部分或全部转载、篡改、伪造或复制行为都是违法的，将被追究民事、行政甚至刑事责任。

附注说明：(1)《检测报告》的报告编号是唯一的，即每一个报告编号仅对应唯一的《检测报告》；  
(2)《检测报告》采用特制防伪纸张印制，纸张表面带有“PONY”防伪纹路，该防伪纹路不支持复印，即复制件不会带有“PONY”防伪纹路；  
(3)《检测报告》采用的防伪纸张内部亦加带有高科技“PONY”防伪水印，只有在验钞机等紫外线照射下方可显出无色荧光防伪字样；  
(4)《检测报告》所盖防伪骑缝章中的一部分加盖于本检测单位的留底报告上，《检测报告》与本检测单位留底报告的骑缝章应拼合完整无缺。

www.ponytest.com      ☎Hotline 400-819-5688

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**Test Report No. F690501/LF-CTSAYAA10-40888**

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Sample No. : AYAA10-40888.001  
 Sample Description : Lithium Battery (CFX)  
 Item No./Part No. : R-435 (327)

**Heavy Metals**

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321:2008, ICP	0.5	N.D.
Lead (Pb)	mg/kg	With reference to IEC 62321:2008, ICP	5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321:2008, ICP	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	With reference to IEC 62321:2008, UV-VIS	1	N.D.

**Flame Retardants-PBBs/PBDEs**

Test Items	Unit	Test Method	MDL	Results
Monobromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Dibromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Tribromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Pentabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Hexabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Heptabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Octabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Nonabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Decabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.

NOTE: (1) N.D. = Not detected. (<MDL)  
 (2) mg/kg = ppm  
 (3) MDL = Method Detection Limit  
 (4) - = No regulation  
 (5) \*\* = Qualitative analysis (No Unit)  
 (6) \* = Boiling-water-extraction:  
 Negative = Absence of CrVI coating  
 Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm<sup>2</sup> sample surface area.

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To: JNJ CO., LTD.  
217 Suyang-ri  
Silchon-eup  
Gwangju-city  
Gyeonggi-do  
Korea

The following merchandise was submitted and identified by the client as :

**SGS File No.** : AYAA10-40888  
**Product Name** : Lithium Battery (CFx)  
**Item No./Part No.** : R-435 (327)  
**Received Date** : Dec. 07, 2010  
**Test Period** : Dec. 08, 2010 to Dec. 10, 2010  
**Test Performed** : SGS Testing Korea tested the sample(s) selected by applicant with following results  
**Test Results** : For further details, please refer to following page(s)  
**Comments** : By the applicant's specific request, the sampling and testing was performed only for the part indicated in the photo without disassembly.

Timothy Jeon  
Jinhee Kim  
Cindy Park  
Jerry Jung/ Testing Person

SGS Testing Korea Co. Ltd.

Jeff Jang / Chemical Lab Mgr

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