

LITHIUM CELL TEST SUMMARY AND SUPPLIER INQUIRY

IN ACCORDANCE WITH SUB-SECTION 38.3
OF MANUAL OF TESTS AND CRITERIA

N/A = Not Applicable

1. Name/Description of cell
Lithium Manganese Dioxide Cell CR123A

2. Manufacturer of cell	
Name	Huizhou Huiderui Lithium Battery Technology Co., Ltd
Address	No. 67 Hechang West 3rd Road, Zhongkai Hi-Tech Development Zone, Huizhou, Guangdong, PR China
Phone	+86-0752-2652536
Email	liuzq@huidrui.com
Website	www.huidrui.com

2a. Manufacturer of the equipment (if the cell is contained in equipment)	
Name	2direct GmbH
Address	Langenstück 5 58579 Schalksmühle, Germany
Phone	+49 2351-66887-0
Email	info@2direct.de
Website	www.2direct.de

3. Test laboratory of cell	
Name	Shanghai Research Institute of Chemical Industry Testing Co. Ltd.
Address	200062 No. 345 East Yunling Road, Putuo, Shanghai, PR China
Phone	+86-21-31765555
Email	battery@ghs.cn
Website	www.ghs.cn

4. ID-number and date			
Unique test report identification number	1117070257	Date of test report	2017-09-05

DESCRIPTION OF CELL

5. Mark the type of cell/battery with an "•"	
☐ Lithium ion cell	☒ Lithium metal cell

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Name/Description of cell (taken from field 1)

6. Parameters	Cell
Mass in gram (g):	16,7
Lithium ion: Indicate watt-hour rating (Wh):	
Lithium metal: Indicate lithium metal content in gram (g):	0,49

7. Physical description of cell
Primary Li-Metal cell

8. Model numbers
Logilink SC0016

TESTS AND RESULTS

9. List of tests conducted and results - Mark N/A, pass or fail with an " " "	N/A	pass	fail
T1 - Altitude simulation		X	
T2 - Thermal Test		X	
T3 - Vibration		X	
T4 - Shock		X	
T5 - External Short Circuit		X	
T6 - Impact - for cylindrical cells having a diameter of at least 18 mm	X		
T6 - Crush - for prismatic cells, pouch cells, button cells and cylindrical cells having a diameter of less than 18 mm		X	
T7 - Overcharge	X		
T8 - Forced Discharge		X	

10. Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto

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ADDITIONAL SUPPLIER INQUIRY

11. Quality management system for manufacturing cells Does the manufacturer of the cell/battery manufacture the products based on a documented quality management system according to transport regulations?	X	YES	NO	
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12. Are the following parameters exceeded? Lithium ion cell: more than 20 Wh Lithium metal cell: more than 1 g Lithium		YES	NO	X
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Check point 13 – 15 need to be answered when 13 has been ticked "YES":				
13. Does each cell incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?	X	YES	NO	
14. Is each cell equipped with an effective means of preventing external short circuits?	X	YES	NO	
15. Is each battery containing cells or series of cells connected in parallel equipped with effective means as necessary to prevent dangerous reverse current flow (e.g. diodes, fuses, etc.)	Not relevant for cells			N/A X

16. Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells and lithium polymer cells				
State of Charge (SoC) max. 30 %		N/A	YES	NO

CELLS INSTALLED IN EQUIPMENT

17. Check point 17 needs to be answered when the cells are installed in articles:				
17.a) Only button cells enclosed?		YES	NO	X
17.b) Number of enclosed cells (other than button cells) per equipment	1			
When the equipment is intentionally active/switched on during transport e.g. data loggers:				
17.c) Confirmation that no dangerous amount of heat is emitted from the equipment	X	N/A	YES	NO
17.d) Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160	X	N/A	YES	NO

18. Place, Date Schalksmühle, 20.12.2021	19. Title, Surname, First name Productmanager Grüter, Marcus	20. Company stamp and signature
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