



The Safety Company

UN 38.3 TEST SUMMARY REPORT

MSA Corporate Center

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Associated MSA Product(s): MSA Altair® Pro Gas Detectors

The attached test summary report(s) have been provided by the cell manufacturer(s) and have been prepared in accordance with *The UN Recommendations on the Transport of Dangerous Goods, Manual of Test and Criteria, Amendment to the 6th Edition, Section 38.3.5 – Lithium cell or battery test summary*. The attached summary report(s) indicates the successful completion of tests as required in the UN Manual of Tests and Criteria for the lithium metal cell(s) that may be used in MSA **Altair® Pro Gas Detectors**. The attached summary applies to all MSA Altair® Pro Gas Detector lithium metal batteries.

The attached test summary report(s) were provided by the cell manufacturer(s). A formal request for the original test data shall be made through the manufacturer of the cell.

Sincerely,

A handwritten signature in black ink, appearing to read "D F Vogt", with a stylized flourish at the end.

David F. Vogt

Global Environmental Program Manager

Lithium Battery Test Summary / UN38.3 試験結果要約**Product manufacturer**

Address/住所 1-1 Matsushita-cho, Moriguchi City, Osaka 570-8511, Japan
Telephone/電話番号 +81-6-6994-4560
e-mail un38.3_microbattery@ml.jp.panasonic.com
URL https://www.panasonic.com/global/home.html

Test laboratory

Panasonic Corporation
Address/住所 1-1 Matsushita-cho, Moriguchi City, Osaka 570-8511, Japan
Telephone/電話番号 +81-6-6994-4560
e-mail un38.3_microbattery@ml.jp.panasonic.com
URL https://www.panasonic.com/global/home.html

Description of Product / 製品情報

Model Number/品番 CR2
Type/タイプ Lithium metal cell
Physical description/物理特性 Non-rechargeable, Cylindrical
Mass/質量 11 g
Lithium content/リチウム含有量 0.33 g
Watt-hour rating/ワット時定格値 Not applicable
Nominal Voltage/公称電圧 3.0 V
Nominal Capacity/公称容量 850 mAh

Test Results / 結果

Identification number/番号 CP0007-7
Date of test report/レポート発行日 2008/07/30
Reference edition/参照 UN Manual of Tests and Criteria 4th Amendment 1 edition

UN Manual of Tests and Criteria 国連勧告テスト判定基準	Results 結果	Remarks 備考
T1 : Altitude simulation / 高度シミュレーション	Pass / 合格	
T2 : Thermal Test / 温度試験	Pass / 合格	
T3 : Vibration / 振動	Pass / 合格	
T4 : Shock / 衝撃	Pass / 合格	
T5 : External short circuit / 外部短絡	Pass / 合格	
T6 : Impact / 衝突、Crush / 圧壊	Pass / 合格	Impact / 衝突
T7 : Overcharge / 過充電	-	for rechargeable batteries only / 充電式電池のみ
T8 : Forced discharge / 強制放電	Pass / 合格	

Hereby we certify that this model of Lithium battery meets the requirements of each test in the UN Manual of Tests and Criteria Part III, sub-section 38.3.

上記テストは国連勧告テスト(Manual of Tests and Criteria, Part III, sub-section 38.3.)に従い確認された結果であることを証明致します。

Signature: 

Name and Title: Kazuyuki Amano / Manager
(空欄) Energy Device Business Division

Lithium Battery Test Summary CR2

Product: Energizer CR2 (IEC CR15H270) Lithium Batteries

Name of cell manufacturer	Energizer Brands, LLC
Cell manufacturer contact information	533 Maryville University Drive, St. Louis, MO 63141 314-985-2000 LiTransport@energizer.com www.energizer.com
Test laboratory contact information	Energizer
Test report identification number	CR2:A:012017 CR2:J:092017
Date of test report	4 Jan 2017 2 Sept 2017
Description of cell	Battery type: Lithium Manganese Dioxide Battery Weight of battery: 11.0 g Lithium content: less than 0.3 g Battery description: CR2 Lithium Photo Cell Model Number: CR2
Reference assembled battery testing requirements	N/A



Energizer hereby certifies that the CR2 cell meets all the requirements outlined in the Manual of Tests and Criteria of the UN Recommendations on the Transport of Dangerous Goods, Part III, sub-section 38.3. The CR2 battery passes all the T-test as described in the table below.

Manual of Tests and Criteria (38.3 Lithium batteries)		Test Result
Number	Test	Pass
T1	Altitude simulation	Pass
T2	Thermal test	Pass
T3	Vibration	Pass
T4	Shock	Pass
T5	External short circuit	Pass
T6	Impact	Pass
T7	Overcharge	Not applicable
T8	Forced discharge	Pass
--	1.2 Meter Drop Test (packaging test)	
	2.5 kg maximum air shipment packaging	Pass
	Volume pack (< 30 kg)	Pass



Marcus K. Boolish
Manager of Environmental Affairs, Standards & Product Safety
4 February 2018



Energizer

