



The Safety Company

UN 38.3 TEST SUMMARY REPORT

MSA Corporate Center

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Cranberry Township, PA 16066
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November 12, 2019

Associated MSA Product(s): MSA Altair® 4XM, Altair® 5XM, Altair® Pump Probe, Sirius® Domestic, Sirius® ATEX

The attached test summary report has 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 indicates the successful completion of tests as required in the UN Manual of Tests and Criteria for the lithium ion cell that may be used in all configurations of **MSA Altair® 4XM, Altair® 5XM, Altair® Pump Probe, Sirius® Domestic, and Sirius® ATEX** products.

The original test summary report was provided by the cell manufacturer. 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



The Safety Company

UN 38.3 TEST SUMMARY REPORT

Lithium Cell or Battery Test Summary in Accordance with Section 2.9.4 UN Model Regulations and Sub-section 38.3 of the UN Manual of Tests and Criteria, Part III, Sub-section 38.3.5.

[a] Manufacturer

Sanyo Electric Co. Ltd.

[b] Manufacturer Contact Information

222-1 Kaminaizen

Sumoto City, Hyogo 656-8555, Japan

T: 81-799-23-3931

<https://industrial.panasonic.com>

[c] Test Laboratory

Sanyo Electric Co. Ltd.

222-1 Kaminaizen

Sumoto City, Hyogo 656-8555, Japan

T: 81-799-23-3931

<http://industrial.panasonic.com>

[d] Test Report ID#

E1928286

[e] Test Report Date

Nov. 7, 2019

[f] Description: Small secondary prismatic cell, 3.7V, 1,892 mAh utilized in the following MSA products: Altair® 4XM, Altair® 5XM, Altair® Pump Probe, Sirius® Domestic, Sirius® Atex

☒ Lithium Ion

☐ Lithium Metal

Mass (g)	38.8 g	Watt-hour Rating	7.0	Lithium Content	N/A
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Model Number(s)	UF103450P (BJ-C100150AA)
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[g] List of Test Conducted

Result (Pass / Fail / N/A)

38.3.4.1 T.1: Altitude simulation

Pass

38.3.4.2 T.2: Thermal test

Pass

38.3.4.3 T.3: Vibration

Pass

38.3.4.4 T.4: Shock

Pass

38.3.4.5 T.5: External short circuit

Pass

38.3.4.6 T.6: Impact/Crush (cell only)

Pass

38.3.4.7 T.7: Overcharge (packs only)

N/A

38.3.4.8 T.8: Forced discharge (cell only)

Pass

[h] Battery Assembly: ☒ Not Applicable

☐ UN38.3.3 (f)

☐ UN38.3.3 (g)

[i] Test Reference: Manual of Tests and Criteria Amendments, Fifth Edition, Section 38.3

[j] Signatory – Global Environmental Health and Safety

Date: November 12, 2019

Name: David Vogt

Title: Global Environmental Program Manager

Signature:

Notice – The above signatories affirm that this UN 38.3 Test Summary Report is an accurate and correct summary of the original tests. The original test data is confidential information available to competent Authorities with valid identification and only upon the review by MSA of a written formal request. Disclosure of original test data may be subject to the execution of a nondisclosure agreement.