



The Safety Company

UN 38.3 TEST SUMMARY REPORT

MSA Corporate Center

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October 25, 2019

Associated MSA Product(s): MSA Altair® 5, Altair® 5-IR, Altair® 5X, Altair® 5X-IR, Altair® 5X-PID

The attached test report summary 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 **Altair® 5 Multigas Detector Lithium Ion Rechargeable Battery**. The attached summary applies to all MSA Altair® 5, Altair® 5X, Altair® 5-IR, Altair® 5X-IR, and Altair® 5X-PID lithium ion batteries.

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.

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



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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

MSA Safety Incorporated

[b] Manufacturer Contact Information

1000 Cranberry Woods Drive
Cranberry Twp., PA 16066 USA
T: 1-800-MSA-2222
www.MSAnet.com

[c] Test Laboratory

Motorola Product Testing Services
1700 Belle Meade Court
Lawrenceville, GA 30043
No longer in operation.

Contact MSA for information regarding the full test report.

[d] Test Report ID# MPTS#1580

[e] Test Report Date March 7, 2008

[f] Description: Small secondary battery pack, 3.6V, 2450 mAh utilized in the following MSA products: Altair® 5, Altair®-IR, Altair® 5X, Altair® 5X-IR, Altair® 5X-PID

☒ Lithium Ion

☐ Lithium Metal

Mass (g)	44.0 g	Watt-hour Rating	8.82	Lithium Content	N/A
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Model Number(s)	10083508 – MSA Altair® 5 Rechargeable Battery Pack
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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)

N/A

38.3.4.7 T.7: Overcharge (packs only)

Pass

38.3.4.8 T.8: Forced discharge (cell only)

N/A

[h] Battery Assembly: ☒ Not Applicable ☐ UN38.3.3 (f) ☐ UN38.3.3 (g)

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

[j] Signatory – Global Environmental Health and Safety

Date: March 14, 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.