



The Safety Company

UN 38.3 TEST SUMMARY REPORT

MSA Corporate Center

1000 Cranberry Woods Drive
Cranberry Township, PA 16066
800.MSA.2222
www.MSAnet.com

July 16, 2019

Associated MSA Product(s): MSA G1® Self Contained Breathing Apparatus

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 **MSA G1® Lithium Ion Rechargeable Battery**. The attached summary applies to all MSA G1® 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', is written over the typed name.

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

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T: 1-800-MSA-2222
www.MSAnet.com

[c] Test Laboratory

Vkan Certification & Testing Co., Ltd.

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Science City, Guangzhou
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T: +86-20-32293888
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[d] Test Report ID# RZUN2015-1990

[e] Test Report Date 2015.10.16

[f] Description: Small lithium ion battery pack, 7.2 V, 2250 mAh utilized in the following MSA products: G1® Self Contained Breathing Apparatus

Lithium Ion

Lithium Metal

Mass (g)	410 g	Watt-hour Rating	16.2	Lithium Content	N/A
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Model Number(s)	10148741, 10161002 – MSA G1® 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)	Pass
38.3.4.7 T.7: Overcharge (packs only)	Pass
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, 5th Edition, Amendment 2, Section 38.3

[j] Signatory – Global Environmental Health and Safety

Date: July 16, 2019

Name: David F. 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.