



The Safety Company

## UN 38.3 TEST SUMMARY REPORT

### MSA Corporate Center

1000 Cranberry Woods Drive  
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March 19, 2020

### Associated MSA Product(s): **MSA M1® 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 6<sup>th</sup> 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 M1® Lithium Ion Rechargeable Battery**. The attached summary applies to all MSA M1® 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,

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**

MSA Technologies and Enterprise Services GmbH

**[b] Manufacturer Contact Information**

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**[c] Test Laboratory**

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<https://www.kiwa.com/de/de/uber-kiwa/tochterfirmen/kiwa-primara-gmbh/primara/>

**[d] Test Report ID#** 20PP131-01\_0

**[e] Test Report Date** 2020-03-19

**[f] Description:** Small lithium ion battery pack, 7.4 V, 2,2 Ah utilized in the following MSA products: MSA M1® Self Contained Breathing Apparatus

Lithium Ion  Lithium Metal

|                 |  |                  |       |                 |     |
|-----------------|--|------------------|-------|-----------------|-----|
| Mass (g)        | 141,3 g  | Watt-hour Rating | 16,28 | Lithium Content | N/A |
| Model Number(s) | 10193185, 10193182, 10201874 – MSA M1® Rechargeable Battery Pack |                  |       |                 |     |

**[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, 6th Edition, Amendment 1, Section 38.3

**[j] Signatory – Global Environmental Health and Safety**

Date: March 19, 2020

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.