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UN 38.3

Logistic information and UN 38.3 test summary for li-ion cell or battery

In accordance with Transport of Dangerous Goods Manual of Test and Criteria ST/SG/AC. 10/11/Rev.8, Section 38.3

Ref. UN-25008-en

MAHLE Smartbike Systems S.L.U.
c/Orfebres, 10
E-34004 Palencia
Phone +34 810 101 201
https://mahle-smartbike.com/

Company information

Manufacturer:	MAHLE Smartbike Systems, S.L.U.
Address:	C/ Los Orfebres, 10, ES-34004, Palencia, Spain
Telephone:	(+34) 617917737
Email:	maria.reguero@mahle.com
Website:	https://mahle-smartbike.com

Test Laboratory:	Łukasiewicz Research Network – Institute of Non-Ferrous Metals (Ł-IMN)
Address:	ul. Forteczna 12, 61-362 Poznań (Poland)
Telephone:	(+48) 61 2797 800
Email:	claio@imn.lukasiewicz.gov.pl
Website:	https://imn.lukasiewicz.gov.pl

Sample information

Product / sample description:	E-Bike Li-ion Battery	Sample model:	AZ 121-(01÷08)
Battery model:	MAHLE iM8	Battery ID:	70121FF14815F0
Original tested type:	RECHARGEABLE LITHIUM BATTERY: 13S3P w/ 58E cells	Sample parameter:	46,8V 17.1Ah
Sample mass:	3877,0g	Watt-hour rating:	800,28Wh
Cell or battery type:	Lithium-ion battery	Physical description:	Black prismatic
Original UN38.3 report No.:	ZL 63/2025/1	Test report date:	2025-09-18

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Performed tests

Test method: Manual of Test and Criteria (ST/SG/AC.10/11/Rev.8 Part III sub-section 38.3)

Test items and picture[i]:

T1 Altitude simulation (38.3.4.1):	Pass
T2 Thermal test (38.3.4.2):	Pass
T3 Vibration (38.3.4.3):	Pass
T4 Shock (38.3.4.4):	Pass
T5 External short circuit (38.3.4.5):	Pass
T6 Impact / crush (38.3.4.6):	Not applicable
T7 Overcharge (38.3.4.7):	Pass
T8 Forced discharge (38.3.4.8):	Not applicable



Test conclusion:

The tested samples meet the requirements of test items of the Manual of Tests and Criteria : ST/SG/AC.10/11/Rev.8 Part III sub-section 38.3

Other information

This document:
- is offered an agency who handles this product to handle it safely and provides information regarding mandatory test performed on the mentioned cell or battery.
- is based on the original test summary, issued by Łukasiewicz Research Network – Institute of Non-Ferrous Metals, written in English version, reference ZL 63/2025/1, Sep. 18, 2025. In the case of inconsistencies in any translation, that original version shall prevail.
- takes no account of the differences of countries and applicants.

Additional supplier inquiry
- The manufacturer of the battery, manufacture them based on a documented quality management system according to transport regulations
- The li-ion battery exceeds 100Wh
- The li-ion battery is designed to preclude a violent rupture under normal conditions of carriage
- The li-ion battery contains series of cells connected in parallel equipped with effective means as necessary to prevent dangerous reverse current flow (BMS)

MAHLE Smartbike Systems, S.L.U. undertakes:
- to take all reasonable controls to confirm the legal compliance an maintains a trail of relevant documentation
- to inform immediately if this document is no longer valid, and
- to provide the national / local authorities with any original evidence they deem necessary.

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MAHLE Smartbike Systems, S.L.U. is registered with:

- *CDX - Compliance Data Exchange (cdxsystem.com) with ID number 32199.*
- Spanish Government for waste management with ID No. RII-PYA 2575 (batteries), RII-AEE 8233 (EEE) and ENV/2023/000030717 (packaging) in accordance with EU Directives 2013/56/UE, 2018/852 and 2012/19/UE and complies with its obligation to pay the corresponding mandatory EPR fees for items reflected in European legislation, in the Spanish authorities responsible for this matter.

DocuSigned by:
Maria Reguero
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First edition: Sep. 22, 2025
Prepared and approved by: María M. Reguero López
Product Safety and Conformity Representative
MAHLE Smartbike Systems, S.L.U

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History of Changes – Template F-3398-C010

Version	Date	Description of Changes	Author	Revised by
1	23/06/2023	Initial release	Maria Reguero	Sergio Bocos

[i] *T.3 and T.4 – non-accredited test in conformity to the requirements of the PN-EN ISO/IEC 17025:2012-02 standard*

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