

# Eppendorf Certificate

## Lithium Battery Test Summary / UN38.3

| Article no.                                       | 4861601000                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Product Manufacturer                           | Quawin Electronics CO                                                                                                                                                                                                                                                                                            |
| 2. Battery Manufacturer                           | Quawin Electronics CO<br>6/F, Bfdg.16. Wangtang Industrial Zone, XinWei Village,<br>Xili Town of Nanshan District, Shenzhen<br>Tel +86-755-86 277 191<br>E-Mail <a href="mailto:Jim@quawin.com">Jim@quawin.com</a><br>Web: <a href="http://www.quawin.com">www.quawin.com</a>                                    |
| 3. UN 38.3 Test Lab                               | Shenzhen TCT Testing<br>1B7F Building 1, Yibaolai Industrial Park, Qiaotou. Fuyong,<br>Baoan District, Shenzhen, Guangdong, China<br>Hotline :400-6611-140<br>Tel. 86-755-27673339<br>E-Mail <a href="mailto:tom@tct-lab.com">tom@tct-lab.com</a><br><a href="http://www.tct-lab.com">http://www.tct-lab.com</a> |
| Address                                           |                                                                                                                                                                                                                                                                                                                  |
| 4. Test Report Number                             | TCT190904B015                                                                                                                                                                                                                                                                                                    |
| 5. Date of Test Report                            | 24.09.2019                                                                                                                                                                                                                                                                                                       |
| 6. Description of Cell or Battery                 | Battery                                                                                                                                                                                                                                                                                                          |
| Model                                             | H451987<br>Li-ion Battery<br>26 g<br>2.775 WH<br>3.7<br>750 mA                                                                                                                                                                                                                                                   |
| 7. UN 38.3 Test Performed and Successfully passed |                                                                                                                                                                                                                                                                                                                  |
| T1 : Altitude simulation                          | pass                                                                                                                                                                                                                                                                                                             |
| T2 : Thermal Test                                 | pass                                                                                                                                                                                                                                                                                                             |
| T3 : Vibration                                    | pass                                                                                                                                                                                                                                                                                                             |
| T4 : shock                                        | pass                                                                                                                                                                                                                                                                                                             |
| T5 : External short circuit                       | pass                                                                                                                                                                                                                                                                                                             |
| T6 : Impact / Crush                               | pass                                                                                                                                                                                                                                                                                                             |
| T7 : overcharge                                   | pass                                                                                                                                                                                                                                                                                                             |
| T8 : Forced discharge                             | pass                                                                                                                                                                                                                                                                                                             |
| 8. Assambled Battery Testing Requirements         |                                                                                                                                                                                                                                                                                                                  |
| 9. Edition of UN Manual of Tests an Criteria Used | 1 ST/SG/ AC. 10 /11 Rev.6 / Amend.1                                                                                                                                                                                                                                                                              |

Date: 21.04.2020



Ines Wentzin  
Product Life Cycle Manager

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