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Department of Labour
Approved Inspection Authority CI016

MTEx
Ontploffing Beskermingsdienste
Explosion Prevention Services

ACCREDITED TEST LABORATORY

IN TERMS OF THE ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

INSPECTION AUTHORITY CERTIFICATE

i.safe MOBILE GmbH
i_PARK TAUBERFRANKEN 10
97922 LAUDA-KOENIGSHOFEN
GERMANY

Issued: 2018/10/26
Expire: 2021/10/26
Revision No.: 3

Equipment: Intrinsically Safe Smartphone
Manufacturer: i.Safe Mobile GmbH
Address: i_Park Tauberfranken 10, 97922 Lauda-Koenigshofen, Germany
Model/Type: IS520.1
Serial No.: All units imported between Issued and Expiry dates.

Applicant:
i.safe MOBILE GmbH

Inspection Authority Number**: MTEx-M/18.0178 X**

MTEx Record Number: **MTEx 0391/18.0178**

Ex Rating: **Ex ia I Ma IP65**

Standards used:

SANS 60079-0: 2012 Ed.5 **IEC 60079-0: 2011 Ed.6**	**Explosive atmospheres – Part 0: General requirements.**
SANS 60079-11: 2012 Ed.5 **IEC 60079-11 : 2011 Ed.6**	**Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i".**

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

Hazardous Area: Zone 0
Occurrence: Continuous, Intermittent and abnormal conditions
Hazardous Gas Group: Group I
Permitted Temperature: 150°C

Equipment Protection level (EPL):

EPL		Definition
Gas	Dust	
Ma		Equipment for installation in a mine susceptible to firedamp, having a "very high" level of protection, which has sufficient security that it is unlikely to become an ignition source in normal operation, during expected malfunctions or during rare malfunctions, even when left energized in the presence of an outbreak of gas.

This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 8(1) of the Occupational Health and Safety Act, provided that the apparatus is used as prescribed in accordance with:

1) Any conditions set out in this Certificate;
2) This certificate only covers equipment imported between the “Issued” and “Expiry” dates;
3) When the supporting Q.A.N. (Quality Assurance Notification) of the equipment manufacturer expires, it is the responsibility of the applicant (as mentioned above) to submit a valid Q.A.N to MTEx Laboratories.
4) The test results presented in this Ex Test Report relate only to the item or product tested.

1. OVERVIEW

The intrinsically safe, rugged industrial smartphone IS520.1 has been designed for use in explosion hazardous areas of zone 1 and 21. The smartphone provides numerous technologies like 4G (LTE), NFC, GPS, Wi-Fi and Bluetooth LE. Equipped with a SD card, changeable battery, 2 cameras (optional), amplified speaker, magnetic charging port and side keys, which allows the allocation of user specific functions or applications.

2. REASON FOR REVIEW

- ARP 0108: 2014 Requirement
- Rev.1 – To include the use of underground use
- Rev.2 – To include Ex ia for Zone 0 use
- Rev.3 – To remove surface usage

3. DOCUMENTATION PROVIDED

- IECEx Certificate of Conformity (IECEx EPS 17.0032 X, Issue No. 0)
- IEC Quality Assessment Report (DE/EPS/QAR12.0003/05)
- MTEx Assessment Notes to include Group I (J0391/18.0178)
- Test and assessment report (BV 17TH0237)
- CSA Group Test Report (70170799)

4. ELECTRICAL / SAFETY PARAMETERS

Power Supply: The smartphone may only be used with the following intrinsically safe battery pack:

BPIS520.1 made by i.Safe MOBILE GmbH.
Li-Ion battery Uo = 3.8V (Uo_max = 4.35V) / 3.6Ah / 13.68Wh

Interface: The smartphone has an USB interface for charging and data transfer and additional magnetic charging port contact on the side for charging. The opening of the USB interface cover in explosive atmospheres is not permitted. Wired data connection and charging is only allowed outside explosion hazardous areas and only with the i.Safe PROTECTOR cable from i.Safe MOBILE GmbH or other accessories specified by i.Safe MOBILE GmbH.

5. SPECIAL CONDITIONS OF USE

- The battery may be charged outside explosion hazardous areas only.
- The device must be protected from impacts with high impact energy, against excessive UV light emission and high electrostatic charge processes.
- The permitted ambient temperature range is -20 °C to +60 °C.
- The SIM card slot must be blanked off (e.g. filling the SIM card slot with an encapsulant) or marked with a label indicating that the GSM unit may not be populated with a SIM card.
- No external accessories may be connected to the device in the hazardous area.
- A maximum of 500mW transmitting power limit applies for Group I use.

6. INSTALLATION INSTRUCTIONS

Installation Instructions / manuals provided by the manufacturer shall be followed in detail to ensure safe operation.

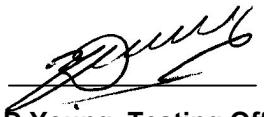
7. MARKING

For validity purposes, the following marking must be added to all equipment covered by this certificate:

Manufacturer: i.Safe Mobile GmbH
Supplier: i.Safe Mobile GmbH
Equipment: Intrinsically Safe Smartphone
Model/Type: IS520.1
IA Number: MTEx-M/18.0178 X
Ex Rating: Ex ia I Ma IP65
Serial No.: -----

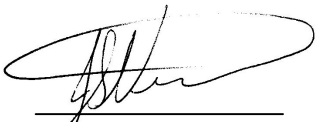
Note 1: It is the responsibility of the supplier to ensure that the marking label complies with the ARP 0108: 2014, clause 7.

Authorized by:



D Young, Testing Officer.

Reviewed by:



JS Venter, Editor.

MTEx Laboratories

End of Certificate