



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx TSA 05.0017X** Issue No.: **0**

Status: **Current**

Date of Issue: **2005-11-18** Page **1** of **4**

Applicant: **Wolf Safety Lamp Co. Ltd**
C/- Whyte-Hall (Australia) Pty Ltd
Unit 2, 81 – 83 Station Road
Seven Hills NSW 2147
Australia

Electrical Apparatus: **Wolf Safety Torches and Handlamps**
Optional accessory:

Type of Protection: **Ex e ib / Ex tD A21**

Marking: **TS-2X: Ex e ib I/IIC T4/T6 IP67 / Ex tD A21 T95**
TR-2X: Ex e ib I/IIC T4/T6 IP67 / Ex tD A21 T95
H251A: Ex e ib I/IIC T4 IP65
H-4DCA: Ex e ib I/IIC T4 IP65
Penlite: Ex e ib I/IIC T4 IP54
IECEx TSA 05.0017X
Serial No. _____

*Approved for issue on behalf of the IECEx
Certification Body:*

Ujen Singh

Position:

Quality and Certification Manager

*Signature:
(for printed version)*

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

TestSafe Australia

919 Londonderry Road
Londonderry NSW 2753
Australia





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Manufacturer: **Wolf Safety Lamp Co. Ltd**
Saxon Road Works
Sheffield S8 0YA
United Kingdom

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacture's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

| | |
|---|--|
| IEC 60079-0 : 2000 Edition: 3.1 | Electrical apparatus for explosive gas atmospheres - Part 0: General requirements |
| IEC 60079-11 : 1999 Edition: 4 | Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i' |
| IEC 60079-7 : 2001 Edition: 3 | Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e' |
| IEC 61241-0 : 2004 Edition: 1 | Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements |
| IEC 61241-1 : 2004 Edition: 1 | Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD" |

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

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

IECEx ATR:
AU/TS/05.020

File Reference:
2004/002616



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

TS-2X: TS-26, TS-24, TS-24+

TR-2X: TR-26, TR-24, TR-24+

The Wolf torches TS-2X and TR-2X are portable lights with a moulded plastic case and lens ring, and a toughened glass or plastic lens. The lens and metallic reflector are held in place by the lens ring which screws onto the torch body. Effective sealing is ensured by a nitrile seal fitted round the outer rim of the reflector. The torches are powered by two LR20 or R20 batteries.

The TX-2X torch is available in two different body styles. The TS-2X has a straight body where the lens and reflector must be removed in order to insert and remove the batteries. The TR-2X has a right angle body where the lens is at 90° to the orientation of the batteries. A removable end cap is screwed onto the base of the torch body to allow insert and remove the batteries. A nitrile O-ring located in a groove in the torch body provides an effective seal.

TS-24+ and TR-24+ torches have a low battery LED indicator. The circuit contains three resistors, one IC and one LED that assembled on a printed circuit board.

The Wolfite Handlamps H-251A and H-4DCA are portable lights with a moulded carbon loaded polypropylene case and lens ring, and a toughened glass lens. The lens is sealed to the lens ring and the lens ring is sealed to the case by nitrile, neoprene or EPDM O-ring/seals. The lens ring screws onto the body and as an option may be locked in place by a socket headlock screw. The lock screw prevents switch slider mechanism operation until the lens ring is locked in place.

The nylon switch slider mechanism contains a magnet that operates an internal hermetically sealed reed switch.

H-251A is powered by a rechargeable battery pack containing two sealed lead acid cells and an active current limiting device encapsulated in a plastic case. Two metal studs passing through the wall of the enclosure allow the torch to be placed on charging apparatus with connections aligning with the two studs. The studs align internally with the battery pack connections. The studs are sealed to the wall of enclosure and maintain the ingress protection provided by it.

H-4DCA is powered by four R20/LR20 type primary cells held in a removable cassette.

The penlite PL-01 is a portable light with a metallic enclosure. The PL-01 is powered by two AAA size alkaline batteries.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The following combination of the bulbs and cells should be used in TS-2X and TR-2X torches:

| Bulb | Cell | Ambient Temperature | Temperature Classification |
|---------------------------|------------|---------------------|----------------------------|
| TP-402P, TP-404P, TP-406P | R20/LR20* | -20 °C – +55 °C | T4 |
| TP-402P, TP-404P, TP-406P | R20/LR20** | -20 °C – +40 °C | T4 |
| TP-406P | R20*** | -20 °C – +40 °C | T6 |

R20/LR20*: Duracell Ultra, Energizer Alkaline, Energizer Industrial, Eveready Gold.

R20/LR20**: Varta Universal Alkaline, Varta Alkaline, Value Pack, Varta Electric Power, Kodak Alkaline, Exide Alkaline, Cegassa Alkaline, Duracell Alkaline, Duracell Plus, HiTech Alkaline, Professional, RS Alkaline, Sanyo Alkaline, Duracell Ultra, Energizer Alkaline, Energizer Industrial, Eveready Gold, Rayovac Maximum, Duracell Procell.

R20***: Eveready Superplus, Phillips Longlife, Exide Super, Exide Premum, GP Greencell, GP Supercell.

2. The following listed cells can be used in H-4DCA handlamp:

Varta Universal Alkaline, Varta Alkaline, Value Pack, Varta Electric Power, Kodak Alkaline, Exide Alkaline, Cegassa Alkaline, Duracell Alkaline, Duracell Plus, HiTech Alkaline, Professional, RS Alkaline, Sanyo Alkaline, Duracell Ultra, Energizer Alkaline, Energizer Industrial, Eveready Gold, Rayovac Maximum, Duracell Procell, Eveready Superplus, Phillips Longlife, Exide Super, Exide Premum, GP Greencell, GP Supercell.

3. The following listed cells can be used in PL-01 torch:

Energizer Max EN92, Energizer Industrial E92, Duracell PC2400.

4. Only H66P battery pack can be used in H-251A handlamp and the following parameters of the charger should be taken into account:

| | |
|------------------------------|-----------------|
| Maximum Output Voltage U_m | 13 V d.c. |
| Maximum Output Current I_m | 0.7 A |
| Charger Model | C-251HV/C-251LV |



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Additional information:

The following documents were assessed in the course of this certificate. The documents listed give a full and correct specification of the safety aspects of the electrical equipment.

| Document No. | Document Title | Issue | Date |
|--------------|--|-------|------------|
| PL-01 | Penlite PL-01 AUS IECEx | 1 | 2005/07/25 |
| TP-725 | Wolf IECEx Torch AUS – 2 Cell – Straight | 2 | 2005/03/10 |
| TP-726 | Wolf IECEx Torch AUS – 2 Cell – Straight | 2 | 2005/03/10 |
| TP-727 | Wolf IECEx Torch AUS – 2 Cell – Right Angle | 2 | 2005/07/22 |
| TP-728 | Wolf IECEx Torch AUS – 2 Cell – Right Angle | 2 | 2005/03/10 |
| TP-841 | Wolf IECEx Torch AUS – LED Indicator Circuit | 1 | 2005/03/10 |
| TP-922 | Wolf IECEx Torch AUS – Approval Code Options | 1 | 2005/03/10 |
| EW-720 | Wolfite H-251A IECEx AUS – General Assembly | 3 | 2005/07/22 |
| EW-820 | Wolfite H-251A IECEx AUS – Battery Pack | 1 | 2005/03/09 |
| EW-920 | Wolfite H-251A IECEx AUS – Circuit Details | 1 | 2005/03/08 |
| DC-730 | Wolfite H-4DCA IECEx AUS – General Assembly | 2 | 2005/07/22 |
| DC-830 | Wolfite H-4DCA IECEx AUS – Cassete Assembly | 1 | 2005/03/31 |
| DC-930 | Wolfite H-4DCA IECEx AUS – Halogen Lamp | 1 | 2005/03/31 |

Annexe: