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REPORT

on

FLASHLIGHTS AND LANTERNS FOR USE IN
HAZARDOUS LOCATIONS

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Torrance, CA

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DESCRIPTION

PRODUCT COVERED:

USL - Models MityLite 4AA 2420 and MityLite 4AA Plus 2430 flashlights for Class I, Division 2, Groups A, B, C, and D Hazardous Locations.

GENERAL:

The flashlights noted above are not provided with lamp disconnect mechanisms. They are for use with three 1.5 V size "AA" alkaline batteries and a Cat. No. 2424 lamp module containing a Model 218/2002 lamp manufactured by Che Ling Flashlight Bulb Factory Ltd. See ILLS. 1 and 1A for exploded views of the models.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

USL, indicates investigation to U.S. Standard UL 783, Sixth Edition.

MARKING:

The following markings are provided on each device. See ILL. 2 for the markings for Model 2430, which represent the markings for Model 2420.

1. Listee's name.
2. Catalog number.
3. Designation of the Hazardous Locations as shown in "Product Covered."
4. The designation of the lamp bulb to be used and the number, type and size of batteries to be employed.
5. Temperature Code T2A.
6. The word "WARNING" and the following or equivalent statement:
"Risk of ignition - Do not open in a hazardous area."
7. Ambient temperatures -35°C to +40°C.

MODEL 2420 - FIG. 1

General - Figure 1 shows Model 2420, which represents Model 2430. Model 2420 is similar to Model 2430 except Model 2430 has a pushbutton switch located at the base of the flashlight.

1. Lens - PC L 1250Y, manufactured by Teijin Chemicals Ltd. A 1.031 in. deep cup with minimum thickness of not less than 0.079 in. and internal diameters of 1.319 in. and 1.437 in. See ILL. 3.
2. Module Assembly - Consists of the following components along with brass eyelets and gas pellets. See ILL. 4 for details of assembly.

Reflector - Polycarbonate. Fits over lamp and is secured to base. See ILL. 5.

Lamp - Cat. No. 2424 module with Cat. No. 218/2002 Xenon lamp, rated 4.8 V, 0.600 +0.015/-0.050 A, manufactured by Che Ling Flashlight Bulb Factory Ltd. See ILL. 6 for lamp specifications.

Springs (Contacts) - Steel, zinc plated. Three provided. See ILLS. 7, 8 and 9 for the respective shapes and dimensions.

Base - ABS. Reflector, lamp, and springs are connected to the base through the use of eyelets. See ILL. 10 for shape and dimensions.
3. Body - ABS 757, manufactured by Chi Mei. See ILL. 11 for shape and details **for Model 2420. See ILL. 15 for shape and details for Model 2430.**
4. **Battery Retainer and Switch - Provided on Model 2430 only. Located inside the body, the switch completes the base of the body. See ILL. 16 for details.**
5. **End Cap and Boot - Provided on Model 2430 only. Cap is constructed of ABS 757, manufactured by Chi Mei. It fits over the rubber boot, which covers the switch extension, and snaps onto the body. See ILL. 16 for details.**
6. O-ring - EP, 70 shore hardness. Slides onto body and stays between the body and the lens. See ILL. 12 for shape and dimensions.
7. Jumper - Located inside the base of the flashlight to complete electric circuit with batteries. See ILL. 13 for description.
8. Clip (Optional) - ABS. Snaps onto body and is removable. See ILL. 14 for shape and dimensions.