UL® Flashlight Standard

The UL standard covers Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous Locations.

The National Electric Code defines hazardous location classifications and protection techniques. The basic designation is by "class" and "division."

**Class I** locations are areas where flammable gases may be present in sufficient quantities to produce explosive or flammable mixtures.

**Class II** locations can be described as hazardous because of the presence of combustible dust.

**Class III** locations contain easily ignitable fibers and flyings.

**Division 1** designates an environment where flammable gases, vapors, liquids, combustible dusts or ignitable fibers and flyings are likely to exist under normal operating conditions.

**Division 2** is an environment where flammable gases, vapors, liquids, combustible dusts or ignitable fibers and flyings are not likely to exist under normal operating conditions.

Hazardous atmospheres are further defined by "groups."

**Group A**: Atmospheres containing acetylene.
**Group B**: Atmospheres containing hydrogen, gases or vapors of equivalent hazard such as manufactured gas.
**Group C**: Atmospheres containing ethyl-ether vapors, ethylene, or cyclo-propane.
**Group D**: Atmospheres containing gasoline, hexane, naptha, benzene, butane, propane, alcohol, acetone, benzol, lacquer solvent vapors, or natural gas.
**Group E**: Atmospheres containing metal dust - including aluminum, magnesium, and their commercial alloys, and other metals of similarly hazardous characteristics.
**Group F**: Atmospheres containing carbon black, coal or coke dust.
**Group G**: Atmospheres containing flour, starch, or grain dusts.