

HAZARDOUS LOCATIONS RATINGS



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CLASSES: Define the type of explosive or ignitable substances which are present in the atmosphere.

CLASS	HAZARDOUS MATERIAL IN SURROUNDING ATMOSPHERE
Class I	Flammable gases or vapors are present in the air in quantities sufficient to produce explosive or ignitable mixtures.
Class II	Combustible or conductive dusts are present.
Class III	Ignitable fibers or flyings are present, but not likely to be in suspension in sufficient quantities to produce ignitable mixtures, such as wood chips, cotton, flax and nylon. Group classifications are not applied to this class.

DIVISIONS: Define the likelihood of the hazardous material being present in an ignitable concentration.

DIVISION	PRESENCE OF HAZARDOUS MATERIAL
Division 1	Substance referred to by class is present during normal conditions.
Division 2	Substance referred to by class is present only in abnormal conditions, such as a container failure or system breakdown.

GROUPS: Define the substances by rating their flammable nature in relation to other known substances.

GROUP	HAZARDOUS MATERIAL IN SURROUNDING ATMOSPHERE
Group A	Acetylene
Group B	Hydrogen, fuel and combustible process gases containing more than 30% hydrogen by volume or gases of equivalent hazard such as butadiene, ethylene, oxide, propylene oxide and acrolein.
Group C	Carbon monoxide, ether, hydrogen sulfide, morpholine, cyclopropane, ethyl and ethylene or gases of equivalent hazard.
Group D	Gasoline, acetone, ammonia, benzene, butane, cyclopropane, ethanol, hexane, methanol, methane, vinyl chloride, natural gas, naphtha, propane or gases of equivalent hazard.
Group E	Combustible metal dusts, including aluminum, magnesium and their commercial alloys or other combustible dusts whose particle size, abrasiveness and conductivity present similar hazards in connection with electrical equipment.
Group F	Carbonaceous dusts, carbon black, coal black, charcoal, coal or coke dusts that have more than 8% total entrapped volatiles or dusts that have been sensitized by other material so they present an explosion hazard.
Group G	Flour dust, grain dust, flour, starch, sugar, wood, plastic and chemicals.

Source: NEC/UL

Division 1 and 2:	Maximum Temperature:
T1	450°C (842°F)
T2	300°C (572°F)
T2A	280°C (536°F)
T2B	260°C (500°F)
T2C	230°C (446°F)
T2D	215°C (419°F)
T3	200°C (392°F)
T3A	180°C (356°F)
T3B	165°C (329°F)
T3C	160°C (320°F)
T4	135°C (275°F)
T4A	120°C (248°F)
T5	100°C (212°F)
T6	85°C (185°F)