

NFPA 497 Chemical (Vapor) Classification

Group A

Acetylene

Group B

Acrolein (Inhibited)
 Allyl Glycidyl Ether
 1,3-Butadiene
 n-Butyl Glycidyl Ether
 Ethylene Oxide
 Formaldehyde (Gas)
 Hydrogen
 Manufactured Gases containing at least 30% hydrogen (by volume)
 Propyl Nitrate
 Propylene Oxide

Group C

Acetaldehyde
 Allyl Alcohol
 n-Butylaldehyde
 n-Butyl Formal
 Butyl Mercaptan
 Carbon Monoxide
 Chloroacetaldehyde
 1-Chloro-1-Nitropropane
 Crotonaldehyde
 n-Decaldehyde
 1,1 Dichloro-1-Nitroethane
 Dicyclopentadiene
 Diethylamine
 Diethylaminoethanol
 Diethyl Ether
 Diethylene Glycol Monobutyl Ether
 Diethylene Glycol Monomethyl

Ether
 n-n-Dimethyl Aniline
 Dimethylamine
 Di-N- Propylamine
 1,4-Dioxane
 Dipropylene Glycol Methyl Ether
 Diisopropylamine
 Epichlorohydrin
 Ethylene
 Ethylenimine
 Ethylene Glycol Monoethyl Ether
 Acetate
 Ethylene Glycol Monobutyl Ether
 Acetate
 Ethylene Glycol Monobutyl Ether
 Ethylene Glycol Monoethyl Ether
 2-Ethylhexaldehyde

Ethyl Mercaptan
 n-Ethyl Morpholine
 2-Ethyl-3-Propyl Acrolein
 Furfural
 Furfuryl Alcohol
 Hydrazine
 Hydrogen Cyanide
 Hydrogen Selenide
 Hydrogen Sulfide
 Isobutyraldehyde
 Isodecaldehyde
 Isooctyl Aldehyde
 Isopropyl Glycidyl Ether
 Methyl Ether
 Methyl Formal
 Methyl Mercaptan
 Methylacetylene

Methylacetylene-Propadiene
 Methylal
 Monomethyl Aniline
 Monomethyl Hydrazine
 Morpholine
 Nitroethane
 Nitromethane
 1-Nitropropane
 2-Nitropropane
 Propionaldehyde
 n-Propyl Ether
 Tetrahydrofuran
 Tetramethyl Lead
 Triethylamine
 Unsymmetrical Dimethyl Hydrazine
 Valeraldehyde
 Xylidine

Group D

Acetic Acid
 Acetic Acid-Tert.-Butyl Ester
 Acetic Anhydride
 Acetone
 Acetone Cyanohydrin
 Acetonitrile
 Acrylic Acid
 Acrylonitrile
 Adiponitrile
 Allyl Chloride
 Alpha-Methyl Styrene
 Ammonia
 n-Amyl Acetate
 sec-Amyl Acetate
 tert-Butyl Acetate
 Aniline
 Benzene
 Benzyl Chloride
 Bromopropyne
 n-Butane
 Butylene
 Butyl Acrylate (Inhibited)
 1-Butanol
 Butyl alcohol (s) (butanol-2)
 Butylamine
 Butylene
 n-Butyl Acetate
 sec-Butyl Acetate
 Butyl-2-Propenoate
 para tert.-Butyl Toluene
 n-Butyric Acid
 Carbon Disulfide
 Chlorobenzene
 Chloroprene
 Cresol
 Cumene
 Cyclohexane
 Cyclohexanol
 Cyclohexanone
 Cyclohexene
 Cyclopropane
 p-Cymene
 Decene
 n-Decanol
 Decyl Alcohol

Diacetone Alcohol
 Di-Isobutylene
 Di-Isobutyl Ketone
 1,4-Dichloro-2,3 Epoxybutane
 1,1-Dichloroethane
 1,2-Dichloroethylene
 1,3-Dichloropropene
 Diethyl Benzene
 Dimethyl Formamide
 Dimethyl Sulfate
 2,2-Dimethylbutane
 2,3-Dimethylheptane
 3,3-Dimethylheptane
 2,3-Dimethylhexane
 2,3-Dimethylpentane
 Dipentene
 Dodecene
 Ethane
 Ethanol
 Ethylamine
 Ethylenediamine
 Ethylene Chlorohydrin
 Ethylene Dichloride
 Ethylene Glycol Monomethyl
 Ether
 2-Ethylhexanol
 2-Ethylhexyl Acrylate
 Ethyl Acetate
 Ethyl Acrylate (Inhibited)
 Ethyl Alcohol
 Ethyl Sec-Amyl Ketone
 Ethyl Benzene
 Ethyl Butanol
 Ethyl Butyl Ketone
 Ethyl Chloride
 Ethyl Formate
 Ethyl Silicate
 Formic Acid
 Fuel Oil 1
 Gasoline
 n-Heptane
 n-Heptene
 n-Hexane
 Hexanol
 n-Hexanone

Hexene
 sec-Hexyl Acetate
 Isoamyl Acetate
 Isoamyl Alcohol
 Isobutane
 Isobutyl Acetate
 Isobutyl Acrylate
 Isobutyl Alcohol
 Isohexane
 Isopentane
 Isophorone
 Isoprene
 Isopropyl Acetate
 Isopropyl Ether
 Isopropylamine
 Kerosene
 Liquified Petroleum Gas
 Mesityl Oxide
 Methane
 Methanol
 Methyl Acetate
 Methyl Acrylate
 Methyl Alcohol
 Methyl Amyl Alcohol
 Methyl Chloride
 Methyl Ethyl Keotone
 Methyl Formate
 2-Methylhexane
 Methyl Isobutyl Keotone
 Methyl Isocyanate
 Methyl Methacrylate
 Methyl N-Amyl Ketone
 Methyl Tertiary Butyl Ether
 2-Methylpropane
 Methyl 1-Propanol
 Methyl 2-Propanol
 2-Methyl 5-Ethyl Pyridine
 Methylamine
 2-Methylbutane
 Methylcyclohexane
 Methylcyclohexanol
 2-Methylcyclohexanone
 2-Methylheptane
 3-Methylhexane
 2-Methylpropane

3-Methylpentane
 2 Methyl-1-Propanol
 2-Methyl-2-Propanol
 2-Methyloctane
 3-Methyloctane
 4-Methyloctane
 Monoethanolamine
 Monoisopropanolamine
 Naptha (Coal Tar)
 Naptha (Petroleum)
 Neopentane
 nitrobenzene
 n-Nonane
 Nonene
 Nonyl Alcohol
 n-Octane
 Octene
 n-Octyl Alcohol
 n-Pentane
 1-Pentanol
 2-Pentanone
 1-Pentene
 2-Pentene
 2-Pentyl Acetate
 Phenylhydrazine
 Propane
 1-Propanol

2-Propanol
 Propiolactone
 Propionic Acid
 Propionic Anhydride
 N-Propyl Acetate
 Propylene
 Propylene Dichloride
 Pyridine
 Styrene
 Tetrahydronaphthalene
 Toluene
 n-Tridecene
 Triethylbenzene
 2,2,3-Trimethylbutane
 2,2,4-Trimethylbutane
 2,2,3-Trimethylpentane
 2,2,4-Trimethylpentane
 2,3,3-Trimethylpentane
 Tripropylamine
 Turpentine
 n-Undecene
 Vinyl Acetate
 Vinyl Chloride
 Vinyl Toluene
 Vinylidene Chloride
 Xylene

The information on this page is taken from NFPA 497 - Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas 2012. It is provided for reference only and is not to be used for design purposes. Only some of the materials listed here have been classified by test. Refer to NFPA 497 for more detailed information on this table and a more complete explanation of material classification.