

PROPERTIES AND USES OF CARBITOL

Chemical and physical characteristics of carbitol.

Properties	Value
Chemical Formula	$\text{CH}_3\text{CH}_2\text{-O-CH}_2\text{CH}_2\text{-O-CH}_2\text{CH}_2\text{-OH}$
Molecular weight	134.2
Density (20°C)	0.99
Boiling point	202 °C
Melting point	- 76 °C
Vapor pressure (25°C)	19 Pa (0.14 mm Hg)
Relative evaporation rate	0.02 (n-butyl acetate = 1)
Saturation concentration (25°C)	180 ppm
Vapor pressure (25°C)	0.13 mm Hg
Vapor density	4.62
Flash point	96 C
Freezing point	-76 C
Refractive index (20° C)	1.4300
Latent heat of vaporization	85 cal/g
Heat of combustion	-6330 cal/g

FLAMMABILITY (FLASH POINT):

This chemical has a flash point of 96 C (205 F). It is combustible. Fires involving this material can be controlled with a dry chemical, carbon dioxide or Halon extinguisher. A water spray may also be used. The auto ignition temperature of this compound is 204 C (400 F).

REACTIVITY:

This chemical can react with oxidizing materials. It is incompatible with strong acids, acid chlorides and acid anhydrides . It is also incompatible with alkalis. It may react with peroxides, oxygen, nitric acid and sulfuric acid.

STABILITY:

This chemical is hygroscopic. Solutions of this chemical in water, 95% ethanol or acetone should be stable for 24 hours under normal lab conditions.

USES:

This compound is used as a solvent for dyes, nitrocellulose and resins. It is used in non-aqueous stains for wood, for setting the twist and conditioning yarns and cloth, in textile printing, textile soaps, lacquers, cosmetics and quick-drying varnishes and enamels. This compound is also used in brake fluid diluent and in organic synthesis. It used to determine saponification values of oils and as neutral solvent for mineral oil-soap and mineral oil-sulphated oil mixtures (giving fine dispersions in water)