CID 1030

Propylene glycol

Hazardous Reactivities and Incompatibilities

Reacts with strong oxidants, causing fire hazard.

International Program on Chemical Safety/Commission of the European Communities; International Chemical Safety Card on Propylene glycol (July, 1997). Available from, as of January 4, 2010: http://www.inchem.org/pages/icsc.html

▶ Hazardous Substances Data Bank (HSDB)

Propylene glycol is incompatible with oxidizing reagents such as potassium permanganate.

Rowe, R.C., Sheskey, P.J., Quinn, M.E.; (Eds.), Handbook of Pharmaceutical Excipients 6th edition Pharmaceutical Press, London, England 2009, p. 593

▶ Hazardous Substances Data Bank (HSDB)

No significantly dangerous substances are produced after contact with light, humidity or commonly available chemicals. Propylene glycol may react with hydrofluoric acid + nitric acid + silver nitrate to form the explosive silver fulminate.

IPCS; Poisons Information Monograph 443: Propylene glycol (May 1994). Available from, as of January 4, 2009: http://www.inchem.org/documents/pims/chemical/pim443.htm

▶ Hazardous Substances Data Bank (HSDB)

A chemical polishing mixture /of hydrofluoric acid, propylene glycol, and silver nitrate/ was put into a closed glass bottle which burst 30 min later, and formation of silver fulminate was suggested. However, in absence of the silver salt such mixtures evolve gas and should not be stored in any event, especially after use for metal polishing, when the dissolved metal(s) tend to further destabilize the mixture.

Bretherick, L. Handbook of Reactive Chemical Hazards. 4th ed. Boston, MA: Butterworth-Heinemann Ltd., 1990, p. 1167

▶ Hazardous Substances Data Bank (HSDB)