**PEGCOL-89 hydraulic fluid**

 Hydraulic fluid PGV is used in the hydraulic in various systems of Indian Navy. The fluid is mainly constituted of polyglycol-water mixture fortified with suitable corrosion inhibitors. The fluid is nonflammable, non foaming and anticorrosive towards the materials used in the entire hydraulic system of the submarines. The viscosity of the fluid is 12-14 c.s. at 500 C and freezing point is -500 C . The liquid PGV is circulated through stainless steel pipe lines spread into loops of the complete hydraulic system, operating various consumers by mean of screw type vertical pumps. The pressure maintained in the hydraulic system is 90-100 kg/cm at a temperature of 25 to 300 C . The capacity of the hydraulic system is 2.6 tons.

DMSRDE, Kanpur after exhaustive laboratory evaluation developed a composition based on ethylene glycol , polyethylene glycol and glycerol in definite proportions fortified with stable corrosion inhibitors to guard against corrosion of various metals. The developed fluid matched with various physicochemical parameters to that of imported PGV fluid , and was designated as PEGCOL-89. The developed fluid PEGCOL-89 has got no adverse effect no various type of rubber and synthetic materials used in the hydraulic system.