

What are DNAPLs and Organic Solvents?

DNAPLs	Organic Solvents
<p>Dense, Non-aqueous Phase Liquids (DNAPLs) are chemicals that more dense than water and generally do not dissolve readily in water. If spilled they tend to sink into the ground and contaminate the deepest groundwater resources. DNAPLs that are a potential concern with respect to drinking water sources include Poly aromatic hydrocarbons (PAHs), Dioxane-1,4, Tetrachloroethylene (PCE), Trichloroethylene (TCE), Vinyl Chloride.</p>	<p>Organic solvents are liquid organic compounds with the ability to dissolve solids, gases, or liquids. Organic solvents that are a potential concern with respect to drinking water sources include Carbon Tetrachloride, Chloroform, Methylene Chloride, Pentachlorophenol.</p>
<p>Dioxane-1,4: Used as a degreasing solvent or solvent stabilizer in various manufacturing processes.</p>	<p>Chloroform: Is commonly used in a laboratory setting, and in the production of pharmaceuticals, dyes and pesticides.</p>
<p>Poly Aromatic Hydrocarbons: Used in wood preservatives, pharmaceuticals, dyes and asphalt products.</p> <p>Examples of PAHs include naphthalene; acenaphthene; anthracene; fluoranthene; ben[a]anthracene; chrysene; coronen; fluorene; penanthrene; pyrene.</p>	<p>Carbon Tetrachloride: Once used widely in fire extinguishers, as a cleaning agent, in the manufacture of refrigerants as well as an industrial solvent and metal degreasing agent is a banned substance in Ontario since 1999. The only permitted uses of the chemical are in research laboratories or in the manufacturing process where the product is converted to an alternative product which does not contain a class of ozone-depleting substances.</p>
<p>Tetrachloroethylene (PCE): Used in dry cleaning, metal cleaning and as an intermediate in manufacturing processes.</p>	<p>Dichloromethane (also known as methylene chloride): used as a solvent in paint strippers and removers. It is used as a process solvent in the manufacture of drugs, pharmaceuticals and film coatings. It is also used as a metal cleaning and finishing solvent in electronics manufacturing, aerosol propellant and as an agent in urethane foam blowing.</p>
<p>Trichloroethylene (TCE): Mainly used for degreasing of metal parts in the automotive and metal industries. Also found in some household products such as adhesives, paint removers, paints, rug cleaning fluids, and metal cleaners.</p>	<p>Pentachlorophenol (PCP): has been used as a herbicide, insecticide, fungicide, algaecide, and disinfectant, and as an ingredient in antifouling paint. Its use has significantly declined due to its high toxicity. Today it is used industrially as a wood preservative and is not manufactured in Canada.</p>
<p>Vinyl Chloride: Used to make polyvinyl chloride (PVC) pipes, wire coatings, vehicle upholstery and plastic kitchen ware.</p>	