

## Drinking Water Source Protection Chemicals of Concern Listing

Under the *Clean Water Act, 2006*, the chemicals listed below could contaminate a drinking water source (surface water and/or groundwater) if they were released into the environment due to a spill or leak resulting from inadequate storage and/or handling practices.

**DENSE NON-AQUEOUS PHASE LIQUID (DNAPL)** is a liquid that is denser than water and tends to be sparingly soluble in water, sinking to the bottom of groundwater aquifers and surface water bodies as a separate phase liquid. DNAPLs have been used in vast quantities for decades in industrial and commercial application such as dry cleaning / degreasing solvents, electronics, aerosols, plastics, pesticides, pharmaceuticals, wood preservation, asphalt operation, varnishes and motor vehicle and equipment repair but small quantities can also be found in common household products (i.e. adhesives and cleaners).

Chemical	Common Names
1,4-Dioxane	Dioxane, Diethylene Dioxide, Diethylene Ether: Used as a degreasing solvent or solvent stabilizer in various manufacturing processes.
Tetrachloroethylene (Perchloroethylene)	PCE, Ethylene, Tetrachloride, Nema, Tetracap, Perclene, Ankilostin, PerSec: Used in dry cleaning, metal cleaning and as an intermediate in manufacturing processes.
Trichloroethylene (or another DNAPL that could degrade to Trichloroethylene)	TCE, Trichlor, Trike, Tricky, Tri, Trimar, Triene, Ethinyl Trichloride, Tri-Clene, Trielene, Trichloran, Trichloren, Algylen, Trimar, Trethylene, Westrosol, Chlorylen, Gemalgene, Germalgene: 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.
Vinyl Chloride (or another DNAPL that could degrade to Vinyl Chloride)	VCM, Used to create Polymer Polyvinyl Chloride (PVC), Vinyl Chloride Monomer, Chloroethene, Chloroethylen: Used to make PVC pipes, wire coatings, vehicle upholstery and plastic kitchen ware.
Polycyclic Aromatic Hydrocarbons (PAHs)	Naphthalene, Acenaphthene, Acenaphthylene, Benz[a]anthracene, Benzo[a]pyrene, Benzo[e]pyrene, Benzo[b]fluoranthene, Benzo[ghi]perylene, Benzo[j]fluoranthene, Benzo[k]fluoranthene, Chrysene, Coronene, Dibenz[a,h]anthracene, Fluoranthene, Fluorine; Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene: Used in wood preservatives, pharmaceuticals, dyes and asphalt products.

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(as per Part IV of the Clean Water Act)

**ORGANIC SOLVENTS** are liquid organic compounds with the ability to dissolve solids, gases, or liquids. They are typically used in industrial and commercial applications but can also be found in small quantities in common household products such as paints, adhesives, degreasers, and cleaning agents.

Chemical	Common Names
Carbon tetrachloride	Carbon Chloride, Methane Tetrachloride, Benziform, Perchloromethane, Tetrachloroethane, Benzinoform, Freon 10, Halon 104, Tetraform, Tetrasol: 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.
Chloroform	Part of group of compounds called Trihalomethanes, Methyl Trichloride: Used in a laboratory setting, and in the production of pharmaceuticals, dyes and pesticides.
Methylene chloride (Dichloromethane)	DCM, Methylene Chloride, Methylene, Dichloride, Methylene Bichloride: 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.
Pentachlorophenol	PCP, 2,3,4,5,6-Pentachlorophenol, Pentachlorophenate, Penta: 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.

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