

Briefing:

Photo-Cat Destruction of 1,4-Dioxane

Treatment of 1,4-Dioxane, Chlorinated Organics & Other Chemicals

Predominantly found in groundwater containing chlorinated organics, **1,4-dioxane** has emerged as a significant contaminant of concern. Removal of the contaminant is increasingly being mandated by new regulatory legislations. Existing treatment systems such as activated carbon, air stripping, and biological processes cannot remove 1,4-Dioxane. Traditional AOP's can treat 1,4-dioxane, however they suffer from certain disadvantages. Photo-cat® offers significant advances over existing AOP.



Photo-Cat, Best Available Technology

Photo-Cat destroys chemical contaminants in water through a **mature, proven** photocatalytic process to purify or detoxify water. This **green** process is fully **automated**, sealed, generates no waste stream, is **ozone free, peroxide free, wiperless**, eliminates secondary concerns, and has a greater than 18,000 hour service interval. Photo-Cat has **one third the lifecycle cost** of UV-peroxide technologies, making Photo-Cat the cost effective choice. All you need to add is power.

1,4-Dioxane Destruction Using Photo-Cat

Photo-Cat is a modular, turnkey system. It is easy to operate, safe, and provides the best available technology for the destruction of chemical contaminants. It is easily integrated with existing equipment, has a small autonomous footprint, and controls the entire operation with diagnostics and remote interface. Below are four commercial applications that employ Purifics' Photo-Cat technology for 1,4-Dioxane destruction. All of these sites are **ozone and peroxide free**.

Photo-Cat Availability

Photo-Cat is offered for purchase or a Capital Equipment Agreement or a Water Services Agreement.

Case Studies

Cases 1 to 6 are shown on reverse.

Case 1 **Ontario**

Influent = 1500 ppb
Effluent = <3 ppb

Case 2 **Colorado**

Influent = 150 ppb
Effluent = <1.9 ppb

Case 3 **EPA Superfund, New Hampshire**

Influent = 300 ppb
Effluent = <3 ppb

Case 4 **Florida**

Influent = 990 ppb
Effluent = <3 ppb @ 120 ppm chlorides

Case 5 **Florida**

Influent = 170 ppb
Effluent = <1 ppb

Case 6 **North Carolina**

Influent = 2130 ppb
Effluent = <2 ppb



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