

## Tests of ADSORBIT Sorbent For Environmental Hazards

Sorbents used in the environment should be environmentally benign. They should not deteriorate or leach harmful substances when they are used. A standard test of potential environmental harm is the Toxicity Characteristics Leachate Procedure (TCLP test), which measures the concentration of chemicals of concern released into the environment from solid substances. This test was designed to mimic the leaching environment that a substance might encounter in a landfill. The ADSORBIT sorbent was analyzed by this method. The results of the test are summarized in the table below.

**All parameters were well below the limits required by the test,** showing that the ADSORBIT sorbent material does not contribute to pollution of the environment.

Matrix	Parameter	Result	PQL	Units	Maximum Contaminant Level (mg/L)
leachate	Vinyl Chloride	ND	0.2	mg/L	0.2
leachate	1,1-Dichloroethene	ND	0.2	mg/L	0.7
leachate	2-Butanone	ND	1	mg/L	200
leachate	Chloroform	ND	0.2	mg/L	6.0
leachate	Carbon Tetrachloride	ND	0.2	mg/L	0.5
leachate	Benzene	ND	0.2	mg/L	0.5
leachate	1,2-Dichloroethane	ND	0.2	mg/L	0.5
leachate	Trichloroethene	ND	0.2	mg/L	0.5
leachate	Tetrachloroethene	ND	0.2	mg/L	0.7
leachate	Chlorobenzene	ND	0.2	mg/L	100
leachate	Arsenic	ND	0.2	mg/L	5.0
leachate	Barium	0.25	0.005	mg/L	100
leachate	Cadmium	ND	0.05	mg/L	1.0
leachate	Chromium	ND	0.01	mg/L	5.0
leachate	Lead	ND	0.1	mg/L	5.0
leachate	Selenium	ND	0.5	mg/L	1.0
leachate	Silver	ND	0.2	mg/L	5.0
leachate	Mercury	ND	0.002	mg/L	0.2
leachate	gamma-BHC (Lindane)	ND	0.001	mg/L	0.4
leachate	Heptachlor	ND	0.001	mg/L	0.008
leachate	Heptachlor epoxide	ND	0.001	mg/L	0.008
leachate	Endrin	ND	0.002	mg/L	0.02
leachate	Methoxychlor	ND	0.01	mg/L	10
leachate	Chlordane (technical)	ND	0.01	mg/L	0.03
leachate	Toxaphene	ND	0.1	mg/L	0.5
leachate	2,4-D	ND	0.001	mg/L	10
leachate	Silvex (2,4,5-TP)	ND	0.001	mg/L	1.0
leachate	1,4-Dichlorobenzene	ND	0.005	mg/L	7.5
leachate	2-Methylphenol	ND	0.005	mg/L	200
leachate	3- & 4-Methylphenol	0.0028	0.005	mg/L	200
leachate	Hexachloroethane	ND	0.005	mg/L	3.0
leachate	Nitrobenzene	ND	0.005	mg/L	2.0
leachate	Hexachlorobutadiene	ND	0.005	mg/L	0.5
leachate	2,4,6-Trichlorophenol	ND	0.005	mg/L	2.0
leachate	2,4,5-Trichlorophenol	ND	0.005	mg/L	400
leachate	2,4-Dinitrotoluene	ND	0.005	mg/L	0.13
leachate	Hexachlorobenzene	ND	0.005	mg/L	0.13
leachate	Pentachlorophenol	ND	0.005	mg/L	100
leachate	Pyridine	ND	0.005	mg/L	5.0