

Biodegradable Compounds

The levels of degradability have been divided into three sections, from very easy to hard. Not all compounds are good candidates for bioremediation; many factors need to be taken into consideration. One such factor is biocompatibility; if the compound is toxic then it will most likely kill the microbes, therefore not making it a good candidate for bioremediation. Accurate and descriptive site analysis are essential for predictions of biodegradability rates. Ask how our biocompatibility tests can help ensure the success of your projects.

Level	Levels of Biodegradability
1	Very Easy: Petroleum related (natural compounds) Examples included crude oil, gasoline, and diesel fuel.
2	Easy: Solvents, wood preservatives, polynuclear aromatic hydrocarbons, petroleum wastes, chemical manufacturing wastes/products, many pesticides and paint solvents. Trichloroethylene (TCE), perchloroethylene (PCE), trichloroethane (TCA), polychlorinated biphenyls (PCBs), complex polynuclear aromatic hydrocarbons (>5 rings), trinitrotoluene (TNT), DDT and dioxin.
3	Hard: Metals (may alter oxidation, reduction and be toxic), salts, highly insoluble compounds, synthetic oils, and polymerized asphaltenes.

Description	Level	Description	Level	Description	Level
Acenaphthene	2	Ethyl benzene	1	Motor Oils	2
Acrolein	2	Fluoranthene	1	Naphthalene's	1
Acrylonitrile	2	Fuel Oils # 1 - 6	1	Nitrated Phenols	2
Alkylamine Oxides	2	Gasoline	1	Oil Based Fluids	1
Aromatics	2	Grease	2	Oil Based Paints	2
Benzene	1	Heating Oils	1	Organic Herbicides	2
Biphenyl	2	Heptane	1	Organic Pesticides	2
Brake Fluids	2	Hexane/Hexene	1	Pentane	2
Branched Hydrocarbons	1	Hydraulic Fluids	1	Phenoxyacetates	2
Chlorinated Phenols	2	Hydrocarbons	1	Phenylureas	2
Chloro Naphthalene	2	Isoprene	1	Phthalate Esters	2
Chlorobenzene	2	Jet Fuels	1	Polycyclic Aromatics	2

Chloroform	2	Kerosene	1	Pulp By-Products	2
Crude Oils/Cutting Oils	1	Long-Chained Alkanes	1	Sec. Alkylbenzene	2
Cyanide	2	Lubricating Oils	2	Toluene	1
Dichlorobenzene	2	Marine Fuels	1	Trichloroethylene	2
Diesel Fuels	1	Monoalkylbenzenes	2	Vegetable Oils	1
Diethyleneglycol	2	Ethylene Chloride	2	Xylene	1

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