Companies Involved in Biotechnology for Waste Degradation

Company	Materials to Be Degraded	Application
Advanced Biocultures Formulations Orange, CA	Phenols Hydrocarbons Oils Greases Pesticides Tars	Domestic sewage
Advanced Mineral Technologies Golden, CO	Heavy metals	Hazardous waste
American Cyanimid Organic Chemicals Division Wayne, NJ		
American Genetics International Arvado, CO	Toxic waste	
Amicon Corp. Danvers, MA		
Aquifer Remediation Systems Princeton, NJ		
Arco Performance Chemicals, Inc. Philadelphia, PA	Paper and pulp	Waste treatment
Atlantic Research Corp. Alexandria, VA		
ATW Caldweld ^a Santa Fe Springs, CA		Toxic waste
Avasco Wheatridge, CO		
Battelle Memorial Institute Columbus, OH	Chlorinated compounds	Hazardous waste
Bethlehem Steel ^a Bethlehem, PA	Phenols	Waste streams
Biochem Technology, Inc. Malvern, PA		
Bioclean, Inc. ^a Bloomington, MN	PCP	Toxic waste
Bio Huma Netics Chandler, AZ	PCB PCP DDT	

^aBiological treatment methods have been tested or applied in the field

Company	Materials to Be Degraded	Application
Bioscience Management Bethlehem, PA	Organics	Soil Groundwater
Biospherics Rockville, MD		Wastewater
Biosystems, Inc. ^a Chester Township, PA	Petroleum products Organic pollutants	Groundwater
Biotechnica International Cambridge, MA	Phenol Coal tars Cyanides Heavy metals	Toxic waste
Biotechnology Unlimited, Inc. Houston, TX	Industrial surfactants Petroleum Pesticides Herbicides Organic solvents Halogenated hydrocarbons PAH	Soils Wastewaters Ponds Lagoons
Biotrol, Inc. ^a Chaska, MN	PCP	Groundwater
Cambridge Analytical Associates, Inc. Cambridge, MA	Chlorinated hydrocarbons Chloroethenes	Wastewater
Cecos International, Inc. Buffalo, NY		Spills Toxic waste
Chem-Clear, Inc. Wayne, PA		
Chemical Waste Management Model City, NY		Toxic waste
Celanese Chemical Co., Inc. Corpus Christi, TX		Anaerobic Wastewater
Cytoculture International, Inc. San Francisco, CA		Wastewater
Detox, Inc. Newport Beach, CA		
Detox Industries Houston, TX	PCB PAH DDT Oil Chlordane	Toxic waste
Dupont Wilmington, DE		
Ecova* Redmond, WA	Butyl acrylate Solvents	Soils Toxic waste Spills

 $^{^{\}mathbf{a}}\mathbf{Biological}$ treatment methods have been tested or applied in the field.

Company	Materials to Be Degraded	Application
Enzon S. Plainfield, NJ		
Flow Laboratories Orange, CA		Sewage treatment
Fluor Corp. Irvine, CA		
General Electric [*] Schenectady, NY	PCB Phenols	Toxic waste Wastewater
General Environmental Science ^a Beachwood, OH	Phenols Hydrocarbons	Toxic waste Non-toxic waste
Genex Corp. Gaithersburg, MD		Waste treatment
Groundwater Decontamination Systems Waldrick, NJ	Methylene chloride	Groundwater
Groundwater Technology, Inc. ^a Norwood, MA	Petroleum products Hydrocarbons Solvents	Groundwater
Haztech ^a Decatur, GA	Petroleum products	Groundwater Hazardous waste Spills
Homestake Mining Co. Reno, NV	Copper cyanide Free cyanide Thiocyanate	Wastewater
Institute of Gas Technology Chicago, IL		Toxic waste
ITT Rayonier, Inc. Shelton, WA	Pulp and paper	
Interbio Naperville, IL	Hydrocarbons	Soils
International Technologies (IT)' Torrance, CA	Nonhalogenated organics	Soil Spills Groundwater
Ionics, Inc. Watertown, MA		
Johnston Associates, Inc. Princeton, NJ		
Keystone Environmental Resources ^a Pittsburgh, PA	Creosote Coal tars	Soil Toxic waste
Lab Systems, Inc. Morton Grove, IL		

 $^{^{\}mathbf{a}}\mathbf{Biological}$ treatment methods have been tested or applied in the field.

Company	Materials to Be Degraded	Application
Metropolitan Environmental Celina, OH		Hazardous waste Dewatering sludge Groundwater
Microbio Resources San Diego, CA		
Microbe Masters, Inc. Baton Rouge, LA	Phenolics Hydrocarbons Styrene Trimethylamine Ethylene dichloride PCP Creosote	Wastewater
Microlife Techniques Sarasota, FL	Petroleum products Cutting fluids Toluene Napthalene Benzene Phenol Hexane Octane Isophrenols	Wastewater
Miles Laboratories Elkhart, IN		
Motec Mount Juilet, TN	Wood preservatives	Hazardous waste
MycoSearch Chapel Hill, NC		
Occidental Chemical ^a Grand Island, NY	Chlorinated compounds	Hazardous waste Soils
Oxford Environmental New Orleans, LA		
Polybac, Inc. Allentown, PA		
Remediation Technologies, Inc. Kent, WA		
Rollins Environmental Wilmington, DE		Toxic waste
Sybron Biochemical [*] Birmingham, NJ		Wastewater Groundwater Spills
Syntro Corp. San Diego, CA		

 $^{{}^{}a}Biological \, treatment \, methods$ have been tested or applied in the field

Company	Materials to Be Degraded	Application
Vertech Treatment Denver, CO	Pesticides Herbicides Phenols Nitrates Cyanides Benzene Aromatics Nonhalogenated hydrocarbons Coal tars Sulfides	Aqueous organics Sludges Soils
Westinghouse Bio-Analytic Systems Madison, PA		Hazardous waste Groundwater
Zimpro, Inc. Rothschild, WI	Organics Acids Hydrocarbons Leachates Herbicides Pesticides Metals	Wastewater Groundwater

 $^{^{}a}\mbox{Biological}\ \mbox{tr}_{\mbox{\tiny ea}}\mbox{t}\ \mbox{ment}\ \mbox{methods}\ \mbox{have}\ \mbox{been}\ \mbox{testedor}\ \mbox{applied}\ \mbox{in}\ \mbox{the}\ \mbox{field}.$

 $SOURCE\ Jodi\ Bakst,\ of\ fire\ of\ Solid\ Waste\ \ and\ \ Emergency\ \ Response,\ U\ S.\ Environmental\ \ Protection\ \ Agency,\ Washington, DC,\ 1987$