



Bioscience, Inc.
Environmental Products & Services
ISO 9001:2008 Certified

MICROCAT[®]-XRL-X BTX and MTBE Degrading Bioformula



Description

MICROCAT-XRL-X Bioformula is a specialty liquid blend of preselected, adapted microorganisms for use in biological remediation of difficult-to-degrade organic compounds found in groundwater and due to the leakage or spillage of underground and surface tanks containing fuels and particularly gasoline augmented with methyl tertiary butyl ether (MTBE), an octane enhancer. **MICROCAT-XRL-X** contains a combination of aerobes and facultative anaerobes selected from nature for their ability to break down the constituents of such fuels.

Applications

MICROCAT-XRL-X is formulated for application in biological groundwater in-situ remediation or treatment plants receiving inflows pumped from contaminated groundwater aquifers or other waters containing fuel constituents. Such constituents and particularly MTBE at higher concentrations may be toxic and/or difficult to degrade. Such chemicals tend to pass through the biological system or cause system upsets resulting in poor effluent quality and increased operating costs. The use of **MICROCAT-XRL-X** in such systems ensures that preselected, adapted microbial strains are present in the system to speed biodegradation at reasonable residence times. Experience has shown that when used as directed, this product can enhance contaminant removal and improve overall system performance at reduced cost.

Product Characteristics

Appearance	Blue, non-viscous liquid
Contents	Specialized, preselected microorganisms in a water medium
Packaging	42 lb plastic drums
Shelf Life	Six months when stored properly
Storage	Store at room temperature below 80 degrees F; Do Not Freeze

Application Programs

In general, **MICROCAT-XRL-X** is applied directly to the aeration zone of the groundwater treatment plant. Your Bioscience, Inc. Technical Representative will provide you with a custom-tailored application program to fit the specific needs of your groundwater treatment system.

Optimal Application Conditions

For best results, apply this product under the following conditions:

CONDITION	RANGE	OPTIMUM
Dissolved Oxygen, ppm	0.5 - 2.5	2.0 +
pH	6 - 9	7.5
Temperature, ° C	10 - 40	35
Toxic Heavy Metals, ppm	Trace	None
Nutrients:		
BOD: NH ₃ -N	10 : 1 - 10 : 0.5	10 : 1
BOD: PO ₄ -P	100 : 1 - 100 : 0.5	100 : 1

If your system is operating outside these ranges, contact your Bioscience, Inc. Technical Representative for a complete system survey and recommendations.

Storage and Handling

Storage	45° - 80° F (7° - 30° C) Dry conditions; DO NOT FREEZE.
Handling	CAUTION: Avoid exposing skin to strong solution as irritation may result. If material contacts skin or eyes, flush thoroughly and repeatedly with water.