

BioRem-2000

Water Treatment™ Sludge

A powerful blend of microbes and natural botanical blends designed to reduce sludge and improve odor control.

Reduces BOD, COD and TSS levels in waste water operations up to 90%.

Reduces sludge volume in digesters (aerobic/anaerobic), clarifiers and lagoons up to 50% .

Reduces odor in waste water facilities, lift stations, holding ponds and landfill applications from 85% to 100%.

Effluent quality is improved.

Resistant to many chemical shocks and decreases recovery time.

Improves biological, sludge and nitrification/denitrification processes.



BioRem-2000 Water Treatment™ Sludge is very effective in converting and decomposing organic matter at a high rate. Dramatic changes in ratio of food to microorganisms (F/M) takes place as well and assist in predicting improved process efficiency. Variances in wastewater temperatures and pH have a wider operating range with BioRem-2000 Water Treatment™ Sludge than with conventional biological parameters. This capability allows for more consistent activity with uniform feed rates.

Water Treatment™ F.O.G.

A powerful blend of microbes and natural botanical blends designed to improve wastewater systems with F.O.G.

Reduces BOD, COD and TSS levels in waste water operations up to 90%.

Reduces odor in waste water facilities, lift stations, holding ponds and landfill applications from 85% to 100%.

Removes oil deposits and prevents scum formation in holding tanks, sewers, drains and aeration basins.

Effluent quality is improved.

Resistant to many chemical shocks and decreases recovery time.



Fats and oils represent 10% of the organic substances found in wastewater. The term "grease" includes fats, oils, waxes and other similarly related compounds. All kinds of oils found in wastewater will usually float on the water surface and can coat the walls of structures and pipes. The lack of organic decomposition consequently creates maintenance problems. The presence of grease can also interfere with the biological life in the surface wastewater.

Water Treatment™ H2S

A powerful blend of microbes and natural botanical blends designed to control hydrogen sulfide odors.

Reduces the population of hydrogen sulfide-forming bacteria.

A minimum reduction of odor in wastewater facilities from 85% to 100% .

Reduces BOD, COD and TSS levels in waste water operations up to 90%.

Effluent quality is improved.

Resistant to many chemical shocks and decreases recovery time.

Use in lift stations, holding ponds and landfill applications.



Odors in wastewater are usually caused by gases produced by the decomposition of organic matter. Hydrogen sulfide (H₂S) is the most characteristic odor of septic wastewater and is produced by anaerobic microorganisms that reduce sulfates to sulfides. This gas is a colorless, inflammable compound whose odor is characteristic of rotten eggs. Although hydrogen sulfide is the most important gas formed from the standpoint of odors, other volatile compounds, such as indole, skatole and mercaptans, can be formed during anaerobic decomposition as well. These compounds can cause odors more offensive than that of hydrogen sulfide.

Wastewater Solutions

Water Treatment™ Phosphorous

A powerful blend of microbes and natural botanical blends designed to remove phosphorous.

Reduces BOD, COD and TSS levels in waste water operations up to 90%.

Reduces odor in waste water facilities, lift stations, holding ponds and landfill applications from 85% to 100%.

Removes nitrogen, captures and digests the soluble and organic phosphorus.

Significantly reduces the phosphorous levels in a minimal amount of time.

Reduces sludge and odor.

Effluent quality is improved.

Resistant to many chemical shocks and decreases recovery time.



Ferrous and Alum products used to eliminate phosphorous starve the microbes of needed phosphorous and nitrogen, which kills the microbe population. The sludge created by these hazardous chemicals cannot be used and cannot be digested. The sludge can be eliminated with BioRem-2000 Water Treatment™ Phosphorous by using the phosphorous and nitrogen levels to generate more microbe population, while eliminating them in the system.

Water Treatment™ NH3

A powerful blend of microbes and natural botanical blends designed to remove ammonia.

Reduces BOD, COD and TSS levels in waste water operations up to 90%.

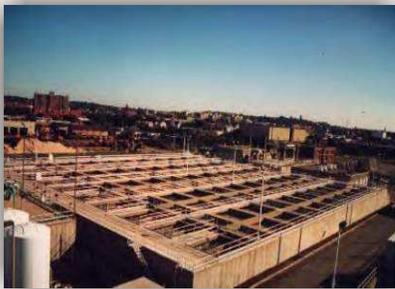
Reduces odor in waste water facilities, lift stations, holding ponds and landfill applications from 85% to 100% .

Significantly reduces the ammonia levels in a minimal amount of time.

Reduces sludge and odor.

Effluent quality is improved.

Resistant to many chemical shocks and decreases recovery time.



Ferrous and Alum products used to eliminate ammonia starve the microbes of needed nutrients, which kills the microbe population. BioRem-2000 Water Treatment™ NH3 reacts with the ammonia and absorbs it on to non-soluble amino acids and mixed into the sludge by precipitation. The ammonia is non-leachable, non-hazardous and non-releasable.

Water Treatment™ Metal-Out

A powerful blend of microbes and natural botanical blends designed to remove heavy metals.

Reduces BOD, COD and TSS levels in waste water operations up to 90%.

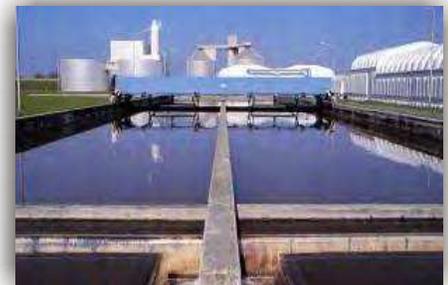
Reduces odor in waste water facilities, lift stations, holding ponds and landfill applications from 85% to 100%.

Significantly reduces waste unlike flocculants.

Reduces heavy metals by precipitation.

Effluent quality is improved.

Resistant to many chemical shocks and decreases recovery time.



Wastewater from metal finishing industries contains high concentrations of contaminants which are hazardous to the environment and pose potential health risks to the public. With increasingly stringent regulations governing wastewater discharge and greater quantities of wastewater being produced, there is a growing need for more efficient and cost-effective methods to remove heavy metals. In accordance with the National Pollutant Discharge Elimination System (NPDES), as required by the Clean Water Act, metal finishers are required to pre-treat their wastewater prior to releasing it to municipal sewers or surface waters. With the greater quantities of wastewater being produced and discharge limits being lowered, there is a need for more efficient processes to remove heavy metals. Heavy metals, in particular, are of great concern because of their toxicity to human and other biological life. Heavy metals typically present in metal finishing wastewater are cadmium, chromium, copper, lead, nickel, silver, tin, and zinc.

BioRem-2000

Wastewater Solutions

Odor Neutralizer™

An all-natural botanical product, formulated to neutralize odor-producing compounds in industrial and commercial settings.

Changes the environment to digest the proteins and fats down to another biochemical pathway which does not produce the reduction by-products which cause odor production.

Applications include wastewater treatment, compost facilities, garbage transfer station, landfills, rendering plants, solid waste handling, laundries and vegetable waste.

Applied and dispensed by fog/spray systems, scrubbers and spray bars. It is not a perfume or masking agent.

It is more effective, safe and cost-efficient than competitive products.

It is non-toxic, non-reactive, non-volatile, non-flammable, biodegradable and ecologically safe. One gallon of diluted material will cover 1,000 square feet.



The odor-producing compounds are organic compounds containing sulfur or nitrogen functionalities, including the mercaptan family as well as amino-functioning hydrocarbons which are of low molecular weight and create various petrifying malodors. The decomposition of meat or carcasses creates hydrogen sulfide but also creates cadaverine which is a hydrocarbon diamine. These compounds are produced when the bacteria digests the organic proteins in an anaerobic environment. This causes the bacteria to pull the oxygen atoms of the amino acids of the proteins causing the production of sulfides, mercaptans and amino hydrocarbons.

Any ammonia or hydrogen sulfide which may be present is digested by the live Cozymase System found in BioRem-2000 Odor Neutralizer™, which uses these compounds as fuel for their cellular functions.

Ingredients are covered under 21 CFR §182.20 for use in food grade ingredients for applications listed under Section 409. These include odor and pH control of such environments. BioRem-2000 Odor Neutralizer™ is diluted 5:1 with water and then applied by spraying on to odor-producing substances. Usage frequency depends on the accumulation rate of waste products causing the odor.



Item Number	Product	Unit Size
8601-030	BioRem-2000 Water Treatment Sludge™	30 Gal.
8601-055	BioRem-2000 Water Treatment Sludge™	55 Gal.
8602-030	BioRem-2000 Water Treatment F.O.G.™	30 Gal.
8602-055	BioRem-2000 Water Treatment F.O.G.™	55 Gal.
8603-030	BioRem-2000 Water Treatment H ₂ S™	30 Gal.
8603-055	BioRem-2000 Water Treatment H ₂ S™	55 Gal.
8604-030	BioRem-2000 Water Treatment Phosphorous™	30 Gal.
8604-055	BioRem-2000 Water Treatment Phosphorous™	55 Gal.
8605-030	BioRem-2000 Water Treatment NH ₃ ™	30 Gal.
8605-055	BioRem-2000 Water Treatment NH ₃ ™	55 Gal.
8606-030	BioRem-2000 Water Treatment Metal-Out™	30 Gal.
8606-055	BioRem-2000 Water Treatment Metal-Out™	55 Gal.
8607-005	BioRem-2000 Odor Neutralizer™	5 Gal.
8607-030	BioRem-2000 Odor Neutralizer™	30 Gal.
8607-055	BioRem-2000 Odor Neutralizer™	55 Gal.