BioProtect®

INDUSTRIAL TREATMENT

BIO-REMEDIATOR

BioProtect® Industrial Treatment is an environmentally safe and user-friendly biological treatment for the control of odour and rapid biodegradation of organic material.

Powered by *Bacillus subtilis*, a natural, non-pathogenic and non-toxigenic bacterium that cleans or removes dirt, soil, dust, debris, and inanimate solids, including scum, nutrients, organic particles and contaminants. Containing a unique combination of bacterium, lipid peptides and other bio-actives that combine to create a probiotic power punch ideal for industrial applications that accelerates the performance of waste digestion.

CONTROLS THE BUILD-UP OF FATS, OILS & GREASE

REDUCES AMMONIA & HYDROGEN SULPHIDE

RAPIDLY BREAKS DOWN ORGANIC MATERIAL

ECO-FRIENDLY, NON-HAZARDOUS & NON-CORROSIVE

APPLICATION PROTOCOL

Dosage rates vary according to the application and area of use. Typical dosage rates for wastewater are between 500 – 1000 ppm.

For odour control and degradation of organic material, Industrial Treatment can be sprayed, fogged or misted directly onto the problem areas that are generating the odour. An authorised BioProtect® distributor should be consulted prior to use to determine the most effective program.

NATURALLY POWERFUL

POWERFUL // As a liquid it penetrates hard to reach places in industrial applications, including sewers, grease traps and sludge ponds to prevent blockages caused by fats, oil, grease and organic wastes. Controls ammonia, hydrogen sulphide and other offensive odours.

NATURAL // An environmentally friendly and powerful probiotic bacterium, *Bacillus subtilis* is found protecting plant roots around the world.

ACTIVE // *Bacillus subtilis* is the bio-active that biodegrades substances found in industrial applications. It prevents the build-up of fat, grease and oils, and rapidly breaks down organic matter.

SAFE // Blended as an extremely safe, pourable liquid product, non-toxic and considered non-pathogenic. Minimal Personal Protective Equipment (PPE) required for application. *Bacillus subtilis* is considered a safe, benign organism. Both the American Society of Microbiology and US-FDA classify BioProtect® Industrial Treatment as a Generally Regarded As Safe: "GRAS" organism. This means it can be safely handled by employees and customers without concern for their health or the environment.

PRODUCT COMPARISON

	BIOPROTECT®	REGULAR PRODUCTS
PRINCIPLE	Promotes colonies of probiotic bacteria in the system	Kills probiotic bacteria that promote organic degradation
	Increase biodegradation and breakdown of FOG	Emulsifies solids but does not break down
	Reduces Hydrogen Sulphide by controlling Sulphate reducing bacteria	Relies on reducing pH to reduce Hydrogen Sulphide
TOXICITY	Safe on pumps, pipes and equipment including steel and concrete – non-corrosive	Corrosive products used to reduce pH
EASE OF USE	Can be misted or foamed into a system	Require dosing system for dangerous and corrosive goods
ENVIRONMENTAL	Safe to store and transport – nom DG	Require DG transport and storage
	Safe for people – minimal PPE required	Require full PPE equipment to use and handle
	Safe for the environment and waterways	Environmental & aquatic pollutants

RECOMMENDED FOR

- Municipal Sewage Pumping Stations
- Municipal Waste Management Facilities
- Food Processing Plant Waste
- Landfill and Waste Storage Facilities
- Odour Intensive Facilities
- Rendering Facilities
- Sludge Tanks and Drain Lines
- Wastewater Treatment Plants
- Garbage Bins and Chutes
- Storage and Collection Areas

ODOUR & CORROSION REDUCTION

The removal or inhibition of both hydrogen sulphide and ammonia not reduces odour and create a safe working environment but also reduces odour complaint and phone calls from neighbours and the community. Apart from the obvious odour effect, hydrogen sulphide and ammonia are corrosive and damage pumps, pipes, machinery, buildings and other assets costing major capital expenditure to replace plant and machinery. BioProtect® Industrial Treatment protects these assets from the aggressive gas attacks on the equipment allowing for reduced maintenance and increased equipment life, deferring the requirement for replacement and saving money.

KEY FEATURES

- ***REMOVES FATS, GREASE AND OILS***
- ***EASILY INCORPORATED INTO EFFLUENT STREAMS***
- ***CONTROLS AMMONIA GAS AND HYDROGEN SULPHIDE PRODUCTION***
- ***REDUCES CORROSION***
- ***REDUCES TOTAL SUSPENDED SOLIDS***
- ***EFFECTIVE IN HIGH SALINE (SALT) ENVIRONMENTS***