



# **GREASE-X<sup>®</sup> GT**

Designed for Grease Traps, Wet Wells, Kitchen Drain Lines and Grease Interceptors



ADVANCED BIOLOGICAL LIQUID FORMULATIONS

**GREASE-X<sup>®</sup> GT**



## ADVANCED BIOLOGICAL LIQUID FORMULATIONS

### Grease-X® GT

A multi-strain liquid bacterial solution specifically formulated to degrade fats, oils and greases and other food waste in the demanding environments of drain lines, grease traps and grease interceptors

## Overview

Restaurants, hospitals, schools and other institutions are prohibited from directly discharging grease into the city sewer system and must take precautions to prevent oil and grease from cooking operations entering the sewer lines. Because of the regulations surrounding discharge, grease traps are essential to the operation of many businesses and organizations in a community.

Grease build-ups are often the cause of slow drain and sewage back-ups as well as creating drain odors and even pest problems. **GREASE-X® GT** is developed specially for formulators to easily create highly effective biological products for grease traps, associated drain lines and also for fat problems in water treatment plants.

The application-specific bacterial consortium present in this product produces lipase enzymes which target large oil and grease molecules, breaking them down into smaller molecules that are then metabolized by the bacteria to quickly degrade the fat and reduce the risk of blockages. As the lipase enzymes get to work, free fatty acids are released, which reduces the pH, creating a harsh environment for bacteria. The strains in **GREASE-X® GT** series are specially selected to work effectively in lower pH ranges found in grease traps and grease interceptors. They have been shown to break down a wide range of materials found in grease traps and grease interceptors:

- vegetable, soy, canola and olive oil
- solid fats such as lard, beef tallow and butter
- starch, proteins and cellulose

In addition, the eco-benign™ formulation contains no emulsifying surfactants such as NPE's, making it a safe and effective choice for grease trap and grease interceptor maintenance products.

## Advantages of GREASE-X® GT

optimized application-specific, proprietary bacterial consortium specifically targets and degrades FOG, even as the pH decreases

de-emulsifying surfactant promotes separation of water phase from FOG phase increasing efficacy of grease traps and grease interceptors and allowing bacteria to work more effectively

proven rapid degradation of soybean, vegetable and olive oils

effective bacterial action reduces odors associated with grease traps, interceptors and drain lines within hours of application

highly effective eco-benign™ formulation - product is readily biodegradable

product is safe for users and the environment

effectively formulated using minimal levels of buffering agent, giving excellent product stability and improved shelf life

easy dilution for formulators to create biological grease treatment products

manufactured under strict quality control standards to ensure high quality and purity



**GREASE-X® GT**

## Applications

- grease traps and grease interceptors
- kitchen drain lines
- wet wells and wastewater piping
- municipal wastewater plants with grease problems
- industrial wastewater treatment, especially in the food industry



Grease build-up in wet well before GREASE-X GT® treatment

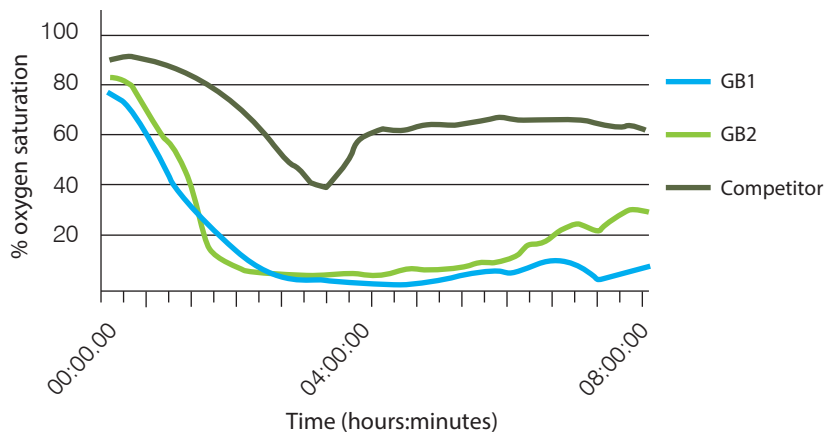


Same well after one month of treatment with GREASE-X® GT



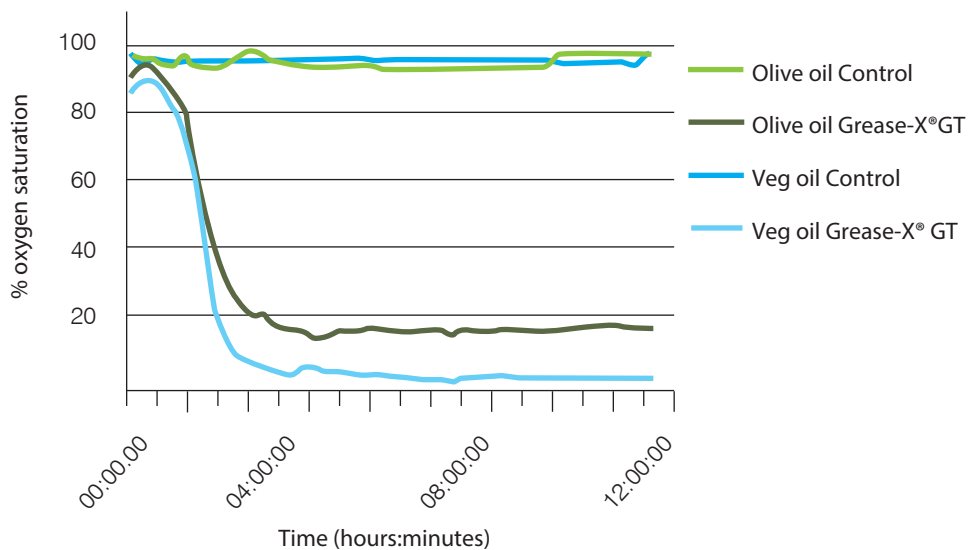
## GREASE-X® GT

### Degradation of butter by strains in Grease-X® GT versus a competitor



The relative ability of bacterial strains to degrade fats can be tested by following oxygen uptake: as the bacteria break down the fat to carbon dioxide and water, oxygen is consumed. In laboratories we do these experiments in a 96 well plate reader which allows many different strains and substrates to be tested under the same conditions. Results for two of the bacterial strains used in GREASE-X® GT on degradation of butter are shown here (green and blue lines), compared to the strain used in a major competitor product (black line). The Grease-X® GT strains start to degrade the butter very quickly, in less than one hour, and degradation is extensive, as the oxygen falls to close to zero. The competitor strain takes longer to get going and the degradation is less extensive. In graphs 2 and 3 below, the degradation of different FOG substrates under the same % oxygen decreased saturation principle is illustrated.

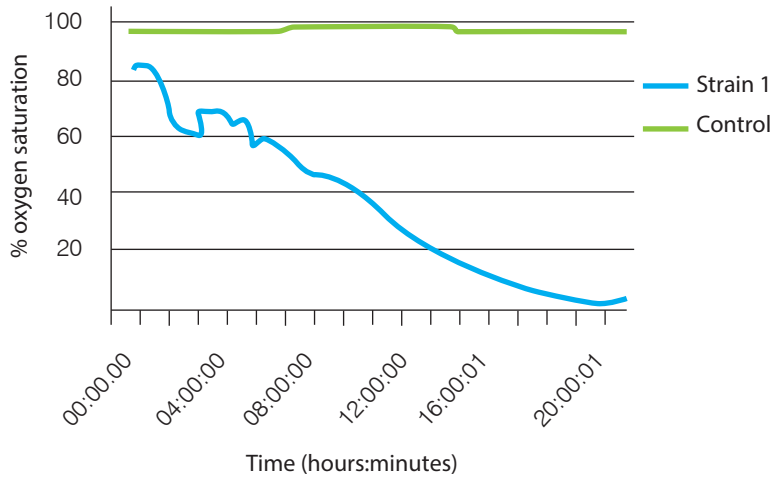
### Vegetable and Olive oil degradation by GREASE-X® GT



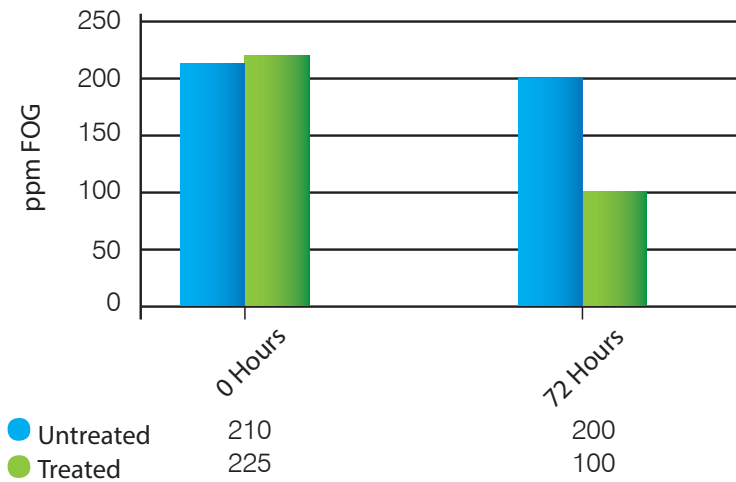


GREASE-X® GT

Minimal media plus glycerol degradation by one strain in GREASE-X® GT



Degradation of soybean oil with 7-strain blend in GREASE-X® GT



ppm FOG measured using InfraCal® TOG/TPH Analyzer (Model HATR-T2), by Wilks Enterprise, Inc.

This represents a **55.6% DEGRADATION OF FOG IN 72 HOURS**



**GREASE-X® GT**

## Technical Specifications for GREASE-X® GT

<b>targeted compounds</b>	wide range of organic compounds including proteins, starches, cellulose and fats, oils and greases from food sources	
<b>bacterial count</b>	concentrate: GREASE-X® GT 10X  7.57e+12 cfu/gallon (2.00e+09 cfu/ml)	after 9:1 dilution GREASE-X® GT 10X  7.57e+11 cfu/gallon 2.00e+08 cfu/ml
<b>bacterial type</b>	bacillus spore blend	
<b>formula properties</b>	turbid, straw colored liquid with natural odor	
<b>performance properties</b>	effective pH range: 4.0-11.0	temperature range: 45-120°F (5-50°C)
<b>packaging</b>	available in 5 gallon pails, 55 gallon drums  (shelf life of 24 months in an original unopened container).	



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