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AWC C-157

Grease & Waste Digester

Technical Bulletin

Product Description	<p><i>AWC C-157 incorporates a novel eight strain, nonpathogenic bacterial spore blend (for improved low pH bacterial activity and biosurfactant production) with biodegradable surfactants and odor counteractants for superior grease and waste digestion and odor control.</i></p> <p><i>Our exclusive blend of bioengineered bacteria has the ability to withstand hot water temperatures (up to 200°F) and is resistant to chlorinated products, disinfectants, bleach, and acidic or alkaline conditions.</i></p> <p><i>AWC C-157 is a natural alternative to caustics, acids, or solvents and is designed to digest grease, fat, proteins, carbohydrates, paper and soap scum.</i></p>
Features	<ul style="list-style-type: none"> • Improved Low pH Activity • Improved Biosurfactant Production • Over 200 Billion Colony Forming Units (cfu)/Gallon • Multi-Strain Formulation • Resistant to Hot Water up to 200°F • Certified Free of Gram-Negative Bacteria (i.e. <i>Salmonella</i> and <i>Shigella</i>)
Benefits	<ul style="list-style-type: none"> • Neutralizes foul odors • Reduces drain line cleaning • Reduces grease trap pumping • Enhances naturally occurring bacterial strains • Contains NO caustics, acids, solvents, or free enzymes
Physical & Chemical Properties	<p>Appearance Milky, light green dispersion</p> <p>Odor Floral</p> <p>Toxicity Low</p> <p>Foaming Moderate</p> <p>Storage Stability 12 months from date of shipment</p> <p>Cold Stability 0°F</p> <p>pH 8.0 - 10.0</p> <p>BOD₅/COD¹ 21000 mg/L / 45000 mg/L</p> <p>Spore Count (cfu/mL) 50 million colony forming units/mL (minimum)</p>

¹Biological Oxygen Demand / Chemical Oxygen Demand - Samples of **C-157** were tested by an independent laboratory analysis to determine the concentration of organic matter in **C-157** and the BOD₅/COD ratio of the product. The BOD₅ is the amount of oxygen used over a 5-day period by microorganisms as they decompose the organic matter at 20°C (68°F). Similarly, the COD is the amount of oxygen required to oxidize the organic matter by use of dichromate in an acid solution to convert it into carbon dioxide and water. The value of the COD is always higher than the BOD₅ because some organic matter is not completely decomposed biologically in the 5-day test. BOD₅/COD ratios above 0.35 are an indication of exceptional biodegradability.

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Application	<p>WHERE TO USE</p> <p>AWC C-157 is specially designed for treatment and maintenance of drains and grease traps, as well as, augmentation of bacterial strains in septic tanks.</p> <p>Use AWC C-157 in wastewater treatment plants on organic waste solids; such as, screenings, grit, sludge, and scum - removed during the wastewater treatment process - to counteract odors.</p> <p>AWC C-157 is acceptable under former USDA guidelines for use in inedible product processing areas, nonprocessing areas, and exterior areas of official establishments operating under the Federal meat, poultry, shell egg grading, and egg products inspection programs.</p> <p>HOW TO APPLY</p> <p>Apply AWC C-157 as directed on the label using our exclusive portion control pump.</p>																
Safety Precautions	<p>CAUTION – May cause slight eye irritation. Avoid contact with eyes, skin, open wounds, or clothing. Wash thoroughly with soap and water after handling.</p> <p>FIRST AID</p> <p>If in eyes: Flush with plenty of water. Call a physician if irritation persists.</p> <p>If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.</p> <p>If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water. Induce vomiting only if advised by a physician.</p> <p>HMIS RATING</p> <p>Health - 1; Flammability - 0; Reactivity - 0</p> <p>RIGHT TO KNOW</p> <table border="1"><thead><tr><th data-bbox="488 1031 808 1062">Ingredients</th><th data-bbox="873 1031 948 1062">CAS#</th></tr></thead><tbody><tr><td data-bbox="488 1077 558 1100">Water</td><td data-bbox="873 1077 984 1100">7732-18-5</td></tr><tr><td data-bbox="488 1104 667 1127">Bacterial spores</td><td data-bbox="873 1104 948 1127">Mixture</td></tr><tr><td data-bbox="488 1131 727 1155">Dodecanol Ethoxylate</td><td data-bbox="873 1131 997 1155">68131-39-5</td></tr><tr><td data-bbox="488 1159 672 1182">Propylene glycol</td><td data-bbox="873 1159 959 1182">57-55-6</td></tr><tr><td data-bbox="488 1186 634 1209">Essential oils</td><td data-bbox="873 1186 948 1209">Mixture</td></tr><tr><td data-bbox="488 1213 558 1236">Borax</td><td data-bbox="873 1213 984 1236">1303-96-4</td></tr><tr><td data-bbox="488 1241 537 1264">Dye</td><td data-bbox="873 1241 948 1264">Mixture</td></tr></tbody></table> <p>VOCs: 0.0% (0 lbs/gallon)</p> <p>See Material Safety Data Sheet (MSDS).</p>	Ingredients	CAS#	Water	7732-18-5	Bacterial spores	Mixture	Dodecanol Ethoxylate	68131-39-5	Propylene glycol	57-55-6	Essential oils	Mixture	Borax	1303-96-4	Dye	Mixture
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Packaging	<p>1/5 Gallons</p> <p>1/35 Gallons</p> <p>1/55 Gallons</p>																

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Bacterial Strain Chart

Bacterial Strains	<i>Bacillus brevis</i>	<i>Bacillus megaterium</i>	<i>Bacillus sphaericus</i>	<i>Bacillus subtilis</i> 923	<i>Bacillus subtilis</i> 359	<i>Bacillus subtilis</i> 104-4	<i>Bacillus subtilis</i> 100-7	<i>Bacillus pumilus</i> 119S2
Growth	Aerobic	Aerobic	Aerobic	Facultative Anaerobe	Aerobic	Facultative Anaerobe	Facultative Anaerobe	Aerobic
Growth Rate	+++	+++++	+++	++++	++++	++++	++++	++++
pH Range (optimum)	6 - 10	5 - 10	4 - 10	4 - 10	5 - 10	4.25 - 10	4.25 - 10	5-10
Temperature (°C)	10 - 50	10 - 50	10 - 50	10 - 50	10 - 50	10 - 50	10 - 50	10-50
Protease	+	+++	+	++++	+++	++	++	++
Amylase	+	+	++	++++	++++	+++++	++++	+
Esterase	++	+++	+	++++	+++	++++	+	++
Lipase	+++	+++	+	++++	++	+	+	+
Cellulase	+	+++	+	++++	+++	+++++	+++	++++
Xylanase	+	+++	+	++++	+++	+++++	+++++	+++++

+++++ = Superior
 ++++ = Excellent
 +++ = Very Good
 ++ = Good
 + = Moderate

Produced Enzymes

Protease	Amylase	Esterase	Lipase	Cellulase	Xylanase
Breaks down protein (found chiefly in meat and eggs).	Breaks down starch (found chiefly in corn, potatoes, rice, pasta, wheat and tapioca) and carbohydrates (such as sugars).	Breaks down fat (found in vegetable oil, and animal tissue) by hydrolysis to fatty acid.	Breaks down fat (found in vegetable oil, and animal tissue) by hydrolysis to fatty acid.	Breaks down cellulose (found chiefly in vegetable matter and paper) by conversion to sugar (glucose).	Breaks down plant material by converting hemicellulose (a major component of the plant cell wall) to sugar.