

InVade™ bio products

Specifications

Microbial Blend:

The microbes used in InVade Bio products are a multiple spore blend designed to provide exceptional performance over a wide range of organic waste-related applications including drain lines, grease traps, hard surface cleaning and deodorizing, septic and waste treatment, as well as carpet and fabric care. The strains were selected for their superior enzymatic activity over a wide range of organic substrates including proteins, carbohydrates, fats (grease), and cellulose. Their combined synergistic value is demonstrated in enhanced cell growth, germination rate,



"Eating the Scum of the Earth!"

and effectiveness. Spore-forming microbes are superior in that they are more resistant to chemical cleaning agents. While the bacteria can be killed by chemicals, the spores survive and can again produce bacterial colonies when conditions become favorable (e.g. the chemical is rinsed away). Spore forming microbes will perform in both aerobic and anaerobic environments. When the spores come in contact with their food source (the target organic matter), they generate bacterial colonies which digest the organic matter.

The spores consist of Bacillus strains (multiple), with no detectable Salmonella or Shigella. Strains are included which produce Lipase, Protease, Amylase, Cellulase, and Urease enzymes with aerobic and facultative anaerobic pathways. They are effective at a temperature range of 38-145 °F. In laboratory tests, the microbe counts double in 20 minutes when in contact with their food sources. They will perform in a pH range of 4.5 to 8.5. They are stable for two years if stored in the range 35-95 °F. In laboratory tests, the spores have been found to have 98% activity after freezing and rethawing.

End Product Specifications:

InVade Bio Cleaner:	216 billion cfu* per gallon, also contains stabilizer, chemical surfactant cleaners and natural citrus oil
InVade Bio Drain:	594 billion cfu* per gallon, also contains stabilizer, natural gelling agent and natural citrus oil
InVade Bio Foam:	255 billion cfu* per pint, also contains stabilizer, foaming agent and natural citrus oil
InVade Bio Foam Hot Spot:	16 billion cfu* per 16 oz can, also contains stabilizer, foaming agent, and natural citrus oil
InVade Bio Zap:	54 billion cfu* per quart, also contains stabilizer and natural citrus oil
InVade Bio Remediation:	510 billion cfu* per pint, also contains stabilizer
InVade Bio Bullet:	4 billion cfu* per gram, also contains stabilizer and binders
InVade Multi RTU:	65 billion cfu* per quart, also contains stabilizer, foaming agent, chemical surfactant cleaners and natural citrus oil

*One cfu (colony forming unit) is one spore