



TECHNICAL DATA

TRI-PHASIC 12™

BIOLOGICAL STIMULANT

General Description

Tri-Phasic 12™ is a proprietary blend of vitamins, minerals and organic nutrients used to stimulate microbial activity in product applications for Micro-Bac International, Inc.® biological products where indigenous nutrients are insufficient to support optimal microbial activity. Such applications include bioremediation of contaminated soil and water. Tri-Phasic 12™ may also be used in the remediation of oligotrophic waters and tank bottoms. By lowering the carbon/nitrogen ratio, biodegradation is enhanced and mineralization is promoted. Tri-Phasic 12™ is supplied in an easy-to-use colloidal liquid form that flows and is freely soluble in water. It is designed to be used in conjunction with Micro-Bac International, Inc.® products such as M-1000®H.

Product Formula

Tri-Phasic 12™ contains all the major and minor mineral compounds as well as defined vitamins required by the specific microorganisms used in the Micro-Bac International, Inc.® products. It supports maximal activity of these microorganisms under both aerobic and anaerobic conditions.

Product Specifications

Color	dark brown layers
pH Concentrated	circa 4.3
pH diluted	5-8
Shipping Size	1 gallon container
Odor	mild
Weight per Gallon	11.4lb
Specific Gravity	1.30
Solubility	> 2 gal per 100 gal water

Dosage

The Technical Staff of Micro-Bac International, Inc.® can provide dosage recommendations based on the design and volumes of the project site. For example one container of Tri-Phasic 12™ nutrient is generally used with 50 cubic yards of contaminated soil.

Application

Tri-Phasic 12™ is generally dissolved in water at a rate of 1 container per 55 gallons. It is generally applied after and occasionally simultaneous with microbial treatments.

Handling & Safety

Tri-Phasic 12™ is a natural product that meets EPA requirements for release into the environment. Special clothing or equipment is not required for handling Tri-Phasic 12™ although contact by inhalation or touch should be avoided and the use of gloves and a dust respirator is suggested. Routine hygiene should be observed.

Shipping

Tri-Phasic 12™ is shipped in a one gallon container, F.O.B. Round Rock, Texas

Services

When the use of Tri-Phasic 12™ is indicated through testing, Micro-Bac International, Inc.® provides technical support and treatment design to its customers.