



PRODUCT LINE CARD

Archangel specializes in both antibiotic and non-antibiotic antimicrobial technology for fermentation, propagation, upstream and downstream ethanol processes. Archangel personnel have over 25 years of experience in the ethanol/beverage industry with numerous antimicrobial and process patents.

ANTIBIOTIC BASED

(FUEL ETHANOL FERMENTATION)

ENOCK V

(VIRGINIAMYCIN)

- Virginiamycin-based antimicrobial formulation designed to control contaminating bacteria by interfering with protein synthesis at the ribosomal level.

ENOCK P

(PENICILLIN)

- Single component antimicrobial that controls contaminating bacteria by inhibiting cell wall synthesis.

Antibiotic Packaging: 0.5 lb or 1 lb. water soluble packaging in 25kg fiber drums.

ENOCK E

(ERYTHROMYCIN)

- Single component antimicrobial containing Erythromycin. Erythromycin is effective against a wide range of gram-positive bacteria that commonly infect fuel ethanol fermentations as well as specific classes of bacteria not well controlled by Virginiamycin.

ENOCK 365

(PROPRIETARY BLEND)

- Combination of antibiotics that inhibit a broad range of both gram-negative and gram-positive fermentation contaminants.

NON-ANTIBIOTIC BASED ANTIMICROBIALS

DEFENDER

(PROPRIETARY)

- Gram-negative/gram-positive antimicrobial solution designed for utilization in beverage and fuel ethanol fermentations. The Defender byproducts are natural — amino acids, urea, and ethanol.

ENOCK ENHANCE

(3000 PPM CHLORINE DIOXIDE SOLUTION)

- Designed for use in final CIP rinse and upstream applications when microbial control is needed. Superior to iodine in disinfection.

ENOCK SSC

(15% SODIUM CHLORITE)

- Antimicrobial solution designed for application at start of fermentation, utilizing the fermentation process to create low levels of chlorine dioxide for antimicrobial control.

PROPAGATION AID

ENOCK YVE-013

- Proprietary technology that stimulates yeast growth and reduces gram-negative bacteria in the propagation sequence of both beverage and fuel ethanol processes.

Hydrite Chemical is the licensee for Defender and YVE-013.

LABORATORY SERVICES

Archangel provides value-added laboratory services to aid in the speciation and location of bacteria to achieve economical microbiological control.

