

Antimicrobial Product List

AMTicide® Coconut

CODE	M14003
INCI NAME	Lactobacillus & Cocos Nucifera (Coconut) Fruit Extract
USE LEVEL	2.0% - 4.0%
APPLICATIONS	Moisturizing, Anti-Fungal
EFFICACY	☺ <i>In-vitro</i> ☹ <i>In-vivo</i> ECOCERT/COSMOS Approved Whole Foods Compliant*



Intended to be coupled with one of our broad-spectrum antimicrobials, such as Leucidal® Liquid, or any preservative package that is lacking in protection against yeasts and molds. Created by fermenting *Cocos nucifera* (coconut) fruit with *Lactobacillus* to deliver a non-irritating, anti-fungal and effective multifunctional product.

Leucidal® Liquid

CODE	M15008
INCI NAME	Leuconostoc/Radish Root Ferment Filtrate
USE LEVEL	2.0% - 4.0%
APPLICATIONS	Moisturizing, Antimicrobial
EFFICACY	☺ <i>In-vitro</i> ☹ <i>In-vivo</i> ECOCERT/COSMOS Approved Austalian Certified Organic Whole Foods Compliant*



Derived from *Leuconostoc kimchii*, a bacterium that has traditionally been used to make Kimchi. Created by the fermentation of *Leuconostoc* in a defined growth medium containing radish root, this specific manufacturing process yields a unique peptide with broad spectrum antimicrobial and conditioning properties.

Leucidal® SF Max

CODE	M15019MAX
INCI NAME	Lactobacillus Ferment
USE LEVEL	2.0% - 4.0%
APPLICATIONS	Moisturizing, Antimicrobial
EFFICACY	☺ <i>In-vitro</i> ☹ <i>In-vivo</i>



Derived from *Lactobacillus acidophilus*, a probiotic bacterium traditionally used to ferment milk into yogurt. Created by the fermentation of *Lactobacillus* in a defined growth medium, this specific manufacturing process yields a unique peptide with broad spectrum, antimicrobial and conditioning properties. This ferment filtrate is salicylate free.

AMTicide® VAF

CODE	M14004
INCI NAME	Bacillus Ferment & Saccharomyces Ferment Filtrate
USE LEVEL	1.0% Maximum
APPLICATIONS	Moisturizing, Antifungal
EFFICACY	☺ <i>In-vitro</i> ☹ <i>In-vivo</i>



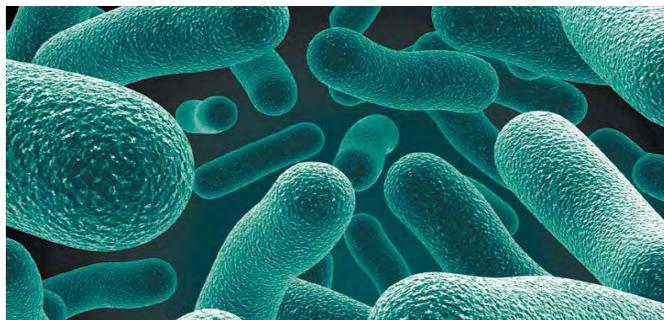
A natural, volatile anti-fungal solution to prevent microbial growth associated with packaging. Developed by co-fermenting bacteria and yeast in a defined growth media to deliver a non-irritating, effective, multifunctional product capable of moisturizing benefits and preventing the growth of fungus in packaging headspace.



Antimicrobial Product List

Leucidal® Liquid PT

CODE	M15021
INCI NAME	Lactobacillus Ferment
USE LEVEL	2.0%
APPLICATIONS	Skin Conditioning, Antimicrobial
EFFICACY	☉ <i>In-vitro</i> ECOCERT/COSMOS Approved



A fermentation product of *Lactobacillus acidophilus* in the presence of sustainable castor oil. The biotransformation of castor oil generates water soluble undecylenates, enhancing anti-fungal activity. The result is a broad spectrum antimicrobial product with probiotic and conditioning properties. Designed for use in pressed powder applications.

Leucidal® Liquid Complete

CODE	M15024
INCI NAME	Leuconostoc/Radish Root Ferment Filtrate & Lactobacillus & Cocos Nucifera (Coconut) Fruit Extract
USE LEVEL	2.0% - 4.0%
APPLICATIONS	Moisturizing, Antimicrobial
EFFICACY	☉ <i>In-vitro</i> ☞ <i>In-vivo</i> ECOCERT/COSMOS Approved Whole Foods Compliant*



A 75/25 blend of the original Leucidal® Liquid with AMTicide® Coconut to offer a broad-spectrum antimicrobial in one product, preventing the growth of bacteria, yeasts and molds. This complex offers moisturizing and conditioning benefits in skin and scalp care applications as well protection to any formulation.

Leucidal® SF Complete

CODE	M15025
INCI NAME	Lactobacillus Ferment & Lactobacillus & Cocos Nucifera Fruit Extract
USE LEVEL	2.0% - 4.0%
APPLICATIONS	Moisturizing, Antimicrobial
EFFICACY	☉ <i>In-vitro</i> ☞ <i>In-vivo</i> ECOCERT/COSMOS Approved



A 75/25 blend of the original Leucidal® Liquid SF with AMTicide® Coconut to offer a broad-spectrum antimicrobial in one product, preventing the growth of bacteria, yeasts and molds. This complex offers moisturizing and conditioning benefits in skin and scalp care applications as well protection to any formulation.

PhytoCide Elderberry OS

CODE	M16003
INCI NAME	Sambucus Nigra Fruit Extract
USE LEVEL	1.0% - 5.0%
APPLICATIONS	Antioxidant, Antimicrobial
EFFICACY	☉ <i>In-vitro</i> ECOCERT/COSMOS Approved Australian Certified Organic



Elderberries are known to be rich in undecylenic acid and flavonoids. These phytochemicals can provide effective antimicrobial and antioxidant benefits. This natural oil-soluble extract can be used to enhance both antimicrobial and conditioning properties in oil based formulations, which may be at risk of microbial contamination during use.



Antimicrobial Product List

PhytoCide Black Currant Powder

CODE	M16001
INCI NAME	Ribes Nigrum (Black Currant) Fruit Extract
USE LEVEL	1.0% - 3.0%
APPLICATIONS	Antioxidant, Antimicrobial
EFFICACY	☉ <i>In-vitro</i> ECOCERT/COSMOS Approved



Black currants are known to be rich in ellagitannins and anthocyanins. These phytochemicals can provide effective antimicrobial, antioxidant and anti-inflammatory benefits. This natural, multifunctional, spray dried powder can be used to enhance both antimicrobial and conditioning properties within a formulation.

PhytoCide Aspen Bark Extract Powder

CODE	M16002
INCI NAME	Populus Tremuloides Bark Extract
USE LEVEL	0.2% - 3.0%
APPLICATIONS	Exfoliating, Antimicrobial
EFFICACY	☉ <i>In-vitro</i> ✎ <i>In-vivo</i> ECOCERT/COSMOS Approved



Aspen Bark is known to be rich in natural salicylates. These can provide effective antimicrobial activity as well as improving cellular renewal for a smooth and even skin texture. This natural, multifunctional, spray dried powder can be used to enhance both antimicrobial and conditioning properties within a formulation.

SynerCide Asian Fusion

CODE	M17001
INCI NAME	Hexylene Glycol & Caprylyl Glycol & Wasabia japonica Root Extract & Zingiber officinale (Ginger) Root Extract & Allium sativum (Garlic) Bulb Extract & Water
USE LEVEL	1.0% - 2.0%
APPLICATIONS	Skin Conditioning, Antimicrobial
EFFICACY	☉ <i>In-vitro</i> ✎ <i>In-vivo</i>



A synergistic blend of wasabi, ginger and garlic. These traditional Asian botanicals can provide potent anti-aging, conditioning and antimicrobial benefits. This multifunctional aqueous extract can be used to enhance both antimicrobial activity and cellular metabolism within a formulation.

Arborcide® OC

CODE	M15010
INCI NAME	Leuconostoc Ferment Filtrate
USE LEVEL	2.0% - 4.0%
APPLICATIONS	Moisturizing, Antimicrobial
EFFICACY	☉ <i>In-vitro</i> ✎ <i>In-vivo</i> Organic Compliant



Derived from *Leuconostoc kimchii*, the bacterium that has traditionally been used to make fermented Kimchi. This ferment filtrate has shown a wide range of utility as a skin conditioner and antimicrobial agent for cosmetic and personal care product formulations.

* Whole Foods is a US based grocery store trying to set a standard for natural personal care products. This denotation only applies to North America.