

# Antimicrobial Product List

Manufacturers add preservatives to formulations to control bacterial and fungal growth, extending the shelf life of these products. A number of synthetic preservatives have fallen from favor with regulators and consumers, due to issues like sensitization, and other health related concerns. The result has been a growing demand for proactive, innovative and alternative solutions to synthetic preservatives.

**Active Micro Technologies (AMT)** has focused its efforts on the power of natural compounds, combining cosmetic functionality with antimicrobial activity to develop a range of multi-functional ingredients that can reduce or eliminate the need for conventional preservatives. **AMT** strives to continuously improve and add to its eco-friendly, nature-based product line while also welcoming the opportunity to custom develop alternative products for preservation and natural antimicrobial solutions.

## **LEUCIDAL® LIQUID (M15008):**

**INCI (approved):** Leuconostoc/Radish Root Ferment Filtrate

**Suggested Use Level:** 2.0% - 4.0%

**Suggested Applications:** Moisturizing, Skin & Hair Conditioning, Antimicrobial

**Properties:** Derived from *Leuconostoc kimchii*, the bacterium that has traditionally been used to make fermented Kimchi. This product consists of a peptide that is produced by the bacterial culture during the fermentation process which has been shown to have antimicrobial benefits. This ferment filtrate provides an effective combination of skin conditioning, moisturizing, and antimicrobial properties.



## **LEUCIDAL® LIQUID SF (M15019):**

**INCI (approved):** Lactobacillus Ferment

**Suggested Use Level:** 2.0% - 4.0%

**Suggested Applications:** Skin Conditioning, Antimicrobial

**Properties:** A probiotic based ingredient created by the fermentation of *Lactobacillus* in a defined growth medium. The specific manufacturing process yields a unique peptide with broad spectrum, antimicrobial and conditioning properties. This ferment filtrate is salicylate-free.



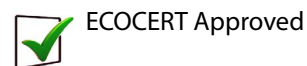
## **LEUCIDAL® LIQUID PT (M15021):**

**INCI (applied/ conforms):** Lactobacillus Ferment

**Suggested Use Level:** 2.0%

**Suggested Applications:** Skin & Hair Conditioning, Antimicrobial

**Properties:** A broad-spectrum natural antimicrobial agent that compliments current trends for natural cosmetics and peptide technology. Leucidal Liquid PT is a fermentation product of *Lactobacillus* in the presence of undecylenic acid, derived from castor oil (a sustainable vegetable resource). The result is a broad-spectrum antimicrobial product with probiotic skin conditioning properties. The biotransformation of undecylenic acid generates water soluble undecylenates, enhancing the anti-fungal activity of the product.



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## LEUCIDAL® ADVANCED - ALOE (M15015):

**INCI (approved):** Water & Leuconostoc/Aloe barbadensis Leaf/Sorbus aucuparia Fruit Ferment Filtrate

**Suggested Use Level:** 2.0% - 4.0%

**Suggested Applications:** Moisturizer, Skin Conditioner, Antimicrobial

**Properties:** Fermentation in a defined growth medium including aloe leaves and rowan berries to produce a fermentation filtrate that contains antimicrobial peptides and provides the enhanced skin conditioning benefits of nourishment and moisturization. The inclusion of rowan berries, which are a natural source of sorbic acid, provides additional antifungal benefits.



## LEUCIDAL® ADVANCED - ROWAN (M15018):

**INCI (approved):** Water & Leuconostoc/Sorbus aucuparia Fruit Ferment Filtrate

**Suggested Use Level:** 2.0% - 4.0%

**Suggested Applications:** Emollient, Skin Conditioner, Antimicrobial

**Properties:** Fermentation in a defined growth medium including rowan berries to produce a fermentation filtrate that provides emollient and skin softening properties, in addition to broad-spectrum antibacterial and antifungal properties.



## PHYTOCID BLACK CURRANT POWDER (M16001):

**INCI (approved):** Ribes nigrum (Black Currant) Fruit Extract

**Suggested Use Level:** 1.0% - 3.0%

**Suggested Applications:** Skin & Hair Conditioning, Antimicrobial

**Properties:** A spray dried powder extract of black currant, rich in ellagitannins and anthocyanins, which provide effective antimicrobial and anti-inflammatory benefits.



## PHYTOCID ASPEN BARK EXTRACT POWDER (M16002):

**INCI (approved):** Populus Tremuloides Bark Extract

**Suggested Use Level:** 0.2% - 3.0%

**Suggested Applications:** Skin Conditioning, Antimicrobial

**Properties:** A spray dried powder extract rich in natural salicylates, which provide natural antimicrobial activity and can impart a smooth feel to the skin.



## PHYTOCID ELDERBERRY OS (M16003):

**INCI (approved):** Sambucus Nigra Fruit Extract

**Suggested Use Level:** 1.0% - 5.0%

**Suggested Applications:** Skin Conditioning, Antimicrobial

**Properties:** Elderberries are known to be rich in undecylenic acid and flavonoids. This oil-soluble extract provides skin conditioning, antimicrobial and antioxidant benefits. It is ideal for incorporation into oil based formulations.



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## SYNERCIDE ASIAN FUSION (M17001):

**INCI (approved):** Water & Caprylyl Glycol & Hexylene Glycol & Wasabia japonica Root Extract & Zingiber officinale (Ginger) Root Extract & Allium Sativum (Garlic) Bulb Extract

**Suggested Use Level:** 1.0% - 2.0%

**Suggested Applications:** Skin Hydrating & Conditioning, Antimicrobial

**Properties:** An aqueous synergistic blend of traditional Asian botanicals with potent anti-aging, skin conditioning and antimicrobial benefits



## SYNERCIDE HERBAL FUSION (M17002):

**INCI (approved):** Water & Caprylyl Glycol & Hexylene Glycol & Origanum vulgare Leaf Extract & Thymus vulgaris (Thyme) Leaf Extract & Rosmarinus officinalis (Rosemary) Leaf Extract

**Suggested Use Level:** 1.0% - 2.0%

**Suggested Applications:** Skin Hydrating & Conditioning, Antimicrobial

**Properties:** An aqueous synergistic blend of traditional herbs known for their ability to provide skin conditioning and antimicrobial benefits.

## AMTICIDE® COCONUT (M14003):

**INCI (applied/conforms):** Lactobacillus & Cocos Nucifera (Coconut) Fruit Extract

**Suggested Use Level:** 2.0% - 4.0%

**Suggested Applications:** Moisturizing, Skin & Scalp Conditioning, Antifungal

**Properties:** Intended to be coupled with one of our broad-spectrum antimicrobials, such as Leucidal Liquid, or perhaps any preservative package that is lacking in protection, against yeast and mold. AMTicide® Coconut is developed by fermenting *Cocos nucifera* (Coconut) fruit with *Lactobacillus* to deliver a non-irritating and effective multifunctional product. This product can provide moisturizing and conditioning benefits in hair and skin care applications. Additionally, it is effective at preventing the growth of fungus, specifically yeast and mold, thus providing added protection to any formulation.

\* **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.