# PhytoCide Lichen Formulation Guidance

## Manufacturing Procedure (Laboratory Scale)

### **Emulsion Systems:**

1. Incorporate PhytoCide Lichen into the formulation during the cooling phase at a temperature of <25°C.

#### Surfactant Systems:

- 1. PhytoCide Lichen is nonionic and is compatible in anionic, cationic and amphoteric systems.
- 2. If viscosity loss is experienced, a thickener should be increased or added to aid with the loss.

## Gel/Aqueous Systems:

 PhytoCide Lichen has excellent compatibility in anionic, cationic and nonionic gel/aqueous systems when added towards the end of the formulating process after the formulation has cooled to below 25°C.

## **Application Ideas:**

1. PhytoCide Lichen is suitable for O/W emulsions, W/O emulsions, and aqueous systems.

## Formulation Advice:

Use Level

Our best recommendation is to start with 2.0% PhytoCide Lichen if no other antimicrobial active or preservative system is present.

Formulator

Code: FSSM16008 INCI Name: 2,3-Butanediol & Cladonia Rangiferina Extract CAS#: 513-85-9 & 92346-91-3 EINECS#: 208-173-6 & 296-176-3 Origin: Botanical Suggested Use Levels: 1.0 - 2.0% Solubility: Water Soluble Appearance: Clear to Slightly Hazy & Liquid Light Yellow to Amber pH Stability: 3 - 8



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