

Technical Information

BREAK-THRU® S 255

Product description

BREAK-THRU® S 255 is a biocompatible carrier liquid for microbial dispersion concentrates (DC) and a wetting agent for oil- and water-based formulations. It is a water- and oil soluble poly-ethermodified polysiloxane suitable for microbe based biosolutions, like biopesticides and bio-stimulants.

Physical properties

Density at 20 °C	1.04 - 1.06 g/ml
Appearance	yellow liquid
Active content	100 %
Viscosity at 25 °C	800 - 1100 mPas
Flash point	90°C
pH - stability in aqueous solutions	pH 3 - 11
Type	non - ionic

Solubility at 10 w/w %

Water	soluble
Butanol	soluble
NMP	soluble
Methylated seed oils	soluble
Aromatic solvents	soluble
Vegetable oils	dispersible

Application

BREAK-THRU® S 255 is a wetting agent for oil-based formulations. It reduces the surface tension especially of methylated seed oils and vegetable oils and leads to enhanced spreading of oils.

This resulted in better contact of the oils and the included actives on the surface which increases the biological efficacy.

BREAK-THRU® S 255 has no adverse effect on germination of seeds and microbes. As a carrier liquid it increases significantly the shelf life of fungal spores like *Trichoderma* spp.

BREAK-THRU® S 255 generates monomolecular layers on solid surfaces. This creates wetting properties in the upper zone of the soil.

It provides in this zone humectant properties due to physically bounded water. A leaching of active ingredients in deeper zones of the soil is inhibited.

Microbial compatibility

BREAK-THRU® S 255 is biocompatible with microbial control agents like *Trichoderma* spp., *Beauveria bassiana*, *Bacillus* spp..

BREAK-THRU® S 255 is a carrier liquid for microbial formulations, providing excellent shelf life results.

BREAK-THRU® S 255 absorbs and coordinates water and by that it controls the water activity. Water activity is one of the key parameters for microbial shelf life stability.

Dose Rate

We recommend 1-3 w/w% of BREAK-THRU® S 255 in water based and oil-based formulation in order to provide wetting and humectant properties.

As carrier liquid up to 20 % of spores which are adsorbed on common solid carrier like silica, bentonite is easy to incorporate. As rheology modifier we recommend AEROSIL® form Evonik.

Storage Stability

BREAK-THRU® S 255 is stable in closed containers for two (2) years. BREAK-THRU® S 255 is not sensitive to freezing.

Packaging

4 x 210 kg drums (full pallet)

Listing Status

BREAK-THRU® S 255 is listed in the following chemical inventories:

EINECS, TSCA, DSL, AICS, ECL, ENCS, IECSC (China), PICCS

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicity and ecological effects

is given in our material safety data sheets.

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