

Technical Information

BREAK-THRU® OE 444

Product description

BREAK-THRU® OE 444 is an organo-modified siloxane.

Physical properties

Viscosity at 25 °C	100 – 300 mPas
Density at 25 °C	0.93 – 0.96 g/ml
Surfactant type	non-ionic
Active content	100 %
Flash point	> 100 °C
Pour Point	-10 °C
Appearance	liquid
Colour	colourless to pale straw

Solubility

	1 %	5 %
Cyclohexanone	I	I
Ethanol	I	I
Methylated Rapeseed Oil / Methyl Soyate	S	S
Methylated Seed Oil with non-ionic Emulsifiers	D	D
Mineral Oil / Paraffinic oil	S	S
Soya Oil	I	I
Sunflower Oil	D	D
Solvesso 150	S	S
Water	I	I

I = Insoluble

D = Dispersible

S = Soluble

Application

BREAK-THRU® OE 444 is designed to lower the surface tension of oils and increase the foliar spreading and penetration of agricultural pesticides containing them. BREAK-THRU OE 444 is optimally suited to those formulations containing mineral oils e. g. EC, SE, OD.

However, it is also compatible with and improves the methylated vegetable oils. Use BREAK-THRU® OE 444 by replacing 1 – 2 % of the oil phase in the formulation. Alternatively, in tank mix applications, blend BREAK-THRU® OE 444 with the formulated product and then dilute in the spray tank prior to use.

Table 1: Surface Tensions of Oils (mN/m)

Oil	Neat	1 % OE 444
Methyl Rapeate (Canolate)	30.2	23.8
Methylated Rapeseed Oil (RME)	29	26
Methyl Soyate	31	24
Methylated Seed Oil with non-ionic Emulsifiers	31.7	23.1
Mineral Oil	30.1	23.5

Table 2: Spreading of Oils on Hydrophobic PP (area in cm²)

Oil	Spread Area, cm ²	
	Neat	1 % OE 444
Methyl Repeate (Canolate) at 10 minutes	1.3	10.4
Methyl Soyate at 10 minutes	0.8	8.6
Methylated Seed Oil with non-ionic Emulsifiers at 10 minutes	1.1	8.9
Mineral Oil at 30 minutes	0.5	3.1
Mineral Oil A with 2 % Emulsifiers at 15 minutes	0.8	4.5

Listing Status

BREAK-THRU OE[®] 444 is listed in the following chemical inventories:

EINECS, TSCA, DSL, ENCS, ECL, PICCS, and CHINA.

Per 40 CFR 180.910, BREAK-THRU OE[®] 444 is exempt from the requirement of a tolerance when used in accordance with good agricultural practice as an inert ingredient in pesticide formulations applied to growing crops or to raw agricultural commodities after harvest.

Storage Stability

BREAK-THRU[®] OE 444 is stable in closed containers for 2 years.

Packaging

4 x 180 kg drums (full pallet)

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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