

Technical Information

BREAK-THRU® OE 446

Product description

BREAK-THRU® OE 446 is a polyether polysiloxane.

Physical properties

Viscosity at 25 °C	800 – 1100 mPas
Density at 25 °C	1.04 – 1.06 g/ml
Type	non-ionic
Active content	100 %
Flash point	> 90 °C
Colour	yellowish

Solubility at 10 %

Water	soluble
Butanol	soluble
NMP	soluble
Cyclohexanone	soluble
Rapeseed methylester	soluble
Sunflower oil	dispersible
Solvesso 150	soluble
Isopar M	dispersible

Application

As additive for in-can formulations, BREAK-THRU® OE 446 can improve the performance and stability of oil-based pesticide formulations. Because of its water solubility, BREAK-THRU® OE 446 is also suitable for aqueous based formulations such as SC, SL, EW, and SE.

BREAK-THRU® OE 446 leads to enhanced oil spreading as a consequence of lowering its surface tension (see Table 1 and 2).

BREAK-THRU® OE 446 generates nearly monomolecular layers on solid surfaces which inhibit crystallisation of active ingredients and the agglomeration of solid particles in EC, OD and SC formulations. BREAK-THRU® OE 446 reduces abrasion and dust creation in seed treatments and in WDG formulations. BREAK-THRU® OE 446 can be diluted with water and sprayed on solid surfaces.

For dust reduction in seed treatment the use rate is 20 – 40 ml in 100 kg seeds.

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

	Neat	1 % OE 446
Rapeseed-oil Methylated Ester	32	25

Table 2: Spreading of RME (diameter in mm)

	Neat	1 % OE 446
Rapeseed-oil Methylated Ester	12	70

pH Stability

The stability of BREAK-THRU® OE 446 in aqueous solutions at pH values range of 3 – 11.

It can be reasonably assumed that BREAK-THRU® OE 446 is stable in aqueous solutions in the pH range of 3 – 11.

Dose rates

100 ml/ha with pre-emergence herbicides.

50 ml/ha with all other systemic crop protection ingredients.

These rates refer to both tank mix and in-can applications.

20 – 150 ml/t for dust control and reduction of abrasion in seed treatment and WDG formulations.

Listing status

BREAK-THRU® OE 446 is listed in the following chemical inventories:

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

Per 40 CFR 180.910, BREAK-THRU® OE 446 is exempt from the requirement of a tolerance.

BREAK-THRU® OE 446 is OMRI (Organic Materials Review Institute) listed.

Storage stability

BREAK-THRU® OE 446 is stable in closed containers for two (2) years. BREAK-THRU® OE 446 is not sensitive to freezing.

Packaging

4 x 200 kg drums (full pallet)

950 kg plastic containers

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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