

## Product Information

## BREAK-THRU® OE 446

## PRODUCT DESCRIPTION

BREAK-THRU® OE 446 is a polyether polysiloxane.

## Typical Properties

Property	Unit	Value
<b>Color</b>		yellowish
<b>Density</b> at 25°C	g/cm <sup>3</sup>	1.04-1.06
<b>Flash Point</b>	°C	≤90
<b>Solubility</b> in Butanol at 10%		soluble
<b>Solubility</b> in Cyclohexanone at 10%		soluble
<b>Solubility</b> in Isopar™ M		dispersible
<b>Solubility</b> in NMP at 10%		soluble
<b>Solubility</b> in Rapeseed Methyl ester at 10%		soluble
<b>Solubility</b> in Solvesso™ 150 at 10%		soluble
<b>Solubility</b> in Sunflower Oils at 10%		dispersible
<b>Solubility</b> in Water at 10%		soluble
<b>Viscosity</b> at 25°C	mPa·s	800-1100

The data represents typical values (no product specification)

## TYPICAL APPLICATIONS

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, it 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.

It generates nearly mono-molecular 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.

## Product Composition

Product Composition	Unit	Value
<b>Active Content</b>	wt%	100

The data represents typical values (no product specification)

## BENEFITS &amp; ADVANTAGES

BREAK-THRU® OE 446

- Is oil and water soluble, making it suitable for oil-based and aqueous based formulations
- Has a wide range of pH stability, from 3-11, for flexible formulating
- Enhances the spreading of oils through a reduction in surface tension
- Provides increased stability, especially for OD formulations and reduces dust off in seed treatment
- The reduction in surface tension results in a "film building" property which helps to inhibit crystallization in EC, OD and SC formulations

## DOSAGE

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.

## HANDLING & PROCESSING

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.

## PACKAGING

4 x 210 kg drums (full pallet)

1000 kg plastic containers

## SHELF LIFE

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

## HAZARDOUS SUBSTANCE

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.

## REGISTRATION LISTING SUMMARY

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.

The relevant components of BREAK-THRU® OE 446 are listed/registered or exempt in the following chemical inventories:

### Registration Listings

Registry	Status
Australia (AIIC)	Yes
Canada (DSL)	Yes
China (IECSC)	Yes
EU (EINECS/ELINCS)	Yes
Japan (ENCS)	Yes
South Korea (KECL)	Yes
Philippines (PICCS)	Yes
USA (TSCA)	Yes

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