

## Product Information

## BREAK-THRU® SP 133

## PRODUCT DESCRIPTION

BREAK-THRU® SP 133 improves the performance of herbicides, insecticides and fungicides.

BREAK-THRU® SP 133 is readily biodegradable as it is based on polyglycerol esters and fatty acid esters. It is produced with renewable resources and consists of 95% biobased carbon (ASTM D6866-16 Method). As a safe and environmentally friendly adjuvant, it is an alternative to tallow amine ethoxylates or alkylphenol ethoxylates.

## Typical Properties

Property	Unit	Value
<b>Appearance</b>		colorless to yellowish
<b>Density</b> at 25°C	g/cm <sup>3</sup>	0.96-0.98
<b>Solubility</b> in Butanol at 10%		soluble
<b>Solubility</b> in Cyclohexanone at 10%		soluble
<b>Solubility</b> in Exxol™ D 110 at 10%		soluble
<b>Solubility</b> in Isopar™ M		soluble
<b>Solubility</b> in NMP at 10%		soluble
<b>Solubility</b> in Solvesso™ 150 at 10%		soluble
<b>Solubility</b> in Solvesso™ 200 at 10%		soluble
<b>Solubility</b> in Water at 10%		dispersible
<b>Surface Tension</b> at 0.1% (Pendant Drop)	mN/m	29
<b>Viscosity</b> at 25°C	mPa·s	300-350

The data represents typical values (no product specification)

## 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® SP 133

- Improves the adhesion, improves the adhesion, deposition and retention of agrichemical sprays on difficult-to-wet target species
- Activates the uptake via diffusion through the cuticle and epidermal cell vacuoles
- Reduces the amount of particles prone to drift
- Is derived from renewable resources

## DOSAGE

For tank mix application BREAK-THRU® SP 133 is easily diluted to 0.1% concentration.

Dosage with systemic crop protection ingredients is, in general, 300 ml/ha or 0.1-0.25 wt%.

When built into a pesticide formulation, the suggested rate is 1-5 w/w%.

## HANDLING &amp; PROCESSING

## Fungicides

- Difenoconazole for rust control on cotton

## Herbicides

- Glyphosate for noxious weed control
- Rimsulfuron in combination with dicamba for noxious weed control

## Insecticides

- Thiametoxam for control of cotton aphids

## PACKAGING

4 x 190 kg drums (full pallet)

950 kg containers

## SHELF LIFE

BREAK-THRU® SP 133 may be stored for 48 months in factory-sealed packaging, stored between 5 to 50°C and protected against extreme weather conditions particularly heat, cold and moisture.

## 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® SP 133 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.

BREAK-THRU® SP 133 is OMRI (Organic Materials Review Institute) listed.

BREAK-THRU® SP 133 is FiBL (Forschungsinstitut für Biologischen Landbau) listed.

BREAK-THRU® SP 133 contains 95% USDA certified biobased content.

The relevant components of BREAK-THRU® SP 133 are listed/registered or exempt in the following chemical inventories:

Registration Listings	
Registry	Status
<b>Australia (AICIS)</b>	Yes
<b>China (IECSC)</b>	Yes
<b>European Union (EINECS/ELINCS)</b>	Yes
<b>Korea (KECL)</b>	Yes
<b>Philippines (PICCS)</b>	Yes
<b>United States of America (TSCA)</b>	Yes

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