

## Technical Information

**BREAK-THRU® S 279****Product description**

BREAK-THRU® S 279 is an end capped polyether trisiloxane. In aqueous solutions, it shows super spreading and does dramatically reduce surface tension. Therefore, the biological performance of crop protection products can be significantly enhanced by:

- superior wetting of hydrophobic surfaces, in particular leaves and other parts of plants,
- better uptake through penetration of cuticular waxes, and
- stomatal flooding.

**Physical properties**

Viscosity at 25 °C	25-40 mPas
Density at 25 °C	1.01 – 1.03 g/ml
Type	Non-ionic
Active Content	100 % undiluted
Flash point	> 100 °C
Freeze point	< 0 °C
Surface Tension at 25 °C (0.1 %)	approx. 22 mN/m
Appearance	Liquid
Colour	colourless to pale straw

**Solubility**

Water	Soluble
Alcohol	soluble
Aromatics	soluble
Aliphatic hydrocarbons	insoluble
Paraffinic oils	insoluble

**Application**

BREAK-THRU® S 279 can be used in tank mix and in-can applications.

For tank-mixtures, pesticide manufacturers may suggest a rate of a non-ionic surfactant to be used with their product. Follow the corresponding label recommendation.

However, if the pesticide label does not have a specific recommendation for adjuvant use, but does not prohibit its application, BREAK-THRU® S 279 should be applied at rates listed here.

Further experimental work may be required to identify the specific dose rate of BREAK-THRU® S 279 when it is incorporated into a formulation with a crop protection product. Careful observation of spray performance in a trial application with the tank mixture to be sprayed is advised to determine proper and efficient surfactant rates.

**Arable crops**

Pesticides with systemic action: 200 ml/ha to improve wetting, spreading and uptake.

Pesticides with contact action: 125 ml/ha to improve wetting and spreading.

**Horticultural crops and orchards**

200 – 300 ml/ha depending on the growth stage.

These dosages account for various water volumes. To be in line with regulatory compliances, please observe the local label whether a maximum concentration must not be exceeded.

**Listing status**

The components of BREAK-THRU® S 279 are listed in the following chemical inventories:

EINECS, TSCA, ENCS, AICS, ECL, PICCS CHINA, NDSL.

Per 40 CFR 180.910, BREAK-THRU® S 279 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® S 279 is OMRI listed.

### Storage stability

In original closed containers at room temperature, BREAK-THRU S 279 can be stored for 24 months.

### Packaging

4 x 200 kg drums (full pallet)  
1 000 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.

07/2015

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

**Evonik Nutrition & Care GmbH**  
Goldschmidtstraße 100  
45127 Essen, Germany  
Phone Europe +49 201 173 2665  
Phone Asia +86 21 61191 125  
Phone Americas +1 804 727 0700  
[interface-performance@evonik.com](mailto:interface-performance@evonik.com)  
[www.evonik.com/Interface-performance](http://www.evonik.com/Interface-performance)

