

Technical Information

BREAK-THRU® UNION

Product description

BREAK-THRU® UNION is specifically designed to improve the rain fastness. BREAK-THRU® UNION is a water based spreader/sticker.

Physical properties

Viscosity at 25 °C	450 mPa
Density at 25 °C	1.032 g/ml
Type	non-ionic
Flash point	not applicable
Colour	white
pH (0.1 % at RT)	neutral

BREAK-THRU® UNION combines the advantages of the siloxane based chemistry for excellent reduction of surface tension and spreading of spray droplets with the classical “sticker-properties”. Due to very good reduction in surface tension, the uptake of systemic is increased.

Table 1: Surface tension of water [mN/m]

	Neat	0.1 % wt% UNION
Water	70	25

Table 2: Spreading of water [diameter in mm]

	Neat	0.1 % wt% UNION
Water	4	30

Application

As tank-mix adjuvant, BREAK-THRU® UNION can improve the performance of fungicides, herbicides, insecticides and plant growth regulators, specifically for the following applications:

- herbicides and insecticides
- grape downy mildew
- potato late blight
- fruit & vegetable contact fungicides / insecticides, biologicals
- cereal contact fungicides (e. g. strobilurins, chlorothalonil)
- cereals plant growth regulators (PGR)

BREAK-THRU® UNION can be regarded as a drift retardant. In comparison to water the volume share of driftable droplets (droplets < 100 µm) is reduced with any nozzle type.

Recommended dose rates

- Standard dosage is 0.05 – 0.1 % in the spray solution, maximum 0.125 % (125 ml/ha).
- Common dosage is 100 – 250 ml/ha in 100 to 300 l/ha spray solution, maximum 500 ml/ha.
 - oil seed rape insecticides
 - grape downy mildew fungicides
 - potato late blight fungicides (& insecticides)
 - grape powdery mildew fungicides
 - cereal fungicides, herbicides & PGR
- Dose rate at 0.05 – 0.1 % in the spray solution:
 - drift control

Listing Status

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

EINECS, TSCA, NDSL, ECL, IECSC and PICCS

Storage stability

BREAK-THRU® UNION is stable in closed containers for two (2) years. BREAK-THRU® UNION is sensitive to freezing, therefore please store above 3 °C. Please shake the product before use.

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.

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