

## AgroSpre<sup>™</sup> 100

### AgroSpre\* 100

#### Description

AgroSpre 100 wetter is a new surfactant to consider for a potentially, cost-effective “tank-mix” spray adjuvant for many agricultural applications.

AgroSpre 100 wetter may be considered as a replacement for Nonylphenol Ethoxylate (NPE) surfactants, the use of which has been banned and/or phased out for agriculture and other applications by government regulation in some jurisdictions.

AgroSpre 100 wetter is based on surface chemistry that can help promote increased spreading performance compared to NPE and other conventional surfactants. Excellent spreading typically means better spray coverage on difficult-to-wet foliar surfaces. This important benefit can help conserve water and promote more efficient use of pesticide treatments as compared with NPE based adjuvants formerly used in many crops.

#### Key Features and Benefits

Typically, AgroSpre 100 wetter effectively reduces the surface tension of spray mixtures to levels below that observed with conventional NPE based adjuvants. Typical recommended starting levels are 0.05% concentration.

- Faster response compared to NPE surfactants
- Enhanced spreading compared to NPE (1.5X NPE)
- Potentially more cost-effective, due to lower rate compared to NPE

\*Agro Spred is a trademark of Momentive Performance Materials

### Typical Physical Properties

|                             |                           |
|-----------------------------|---------------------------|
| Appearance                  | Colorless to light yellow |
| Viscosity @ 25°C, cSt       | 65                        |
| Surface Tension (0.1%) mN/m | 26                        |
| Pour Point, °C              | <0                        |
| Flash Point, PMCC, °C       | 213                       |
| Specific Gravity @ 15°C     | 1.00                      |

### Potential Applications

AgroSpred 100 wetter may be considered for use as a spray adjuvant component in many agrochemical products and treatments. As a tank-side spray adjuvant, optimum performance may be achieved when spray mixtures are between pH 5.0 and 8.0, and used within 24 hours of preparation. Typical tank-mix use levels range from 0.025% to 0.1% depending on the spray treatment.

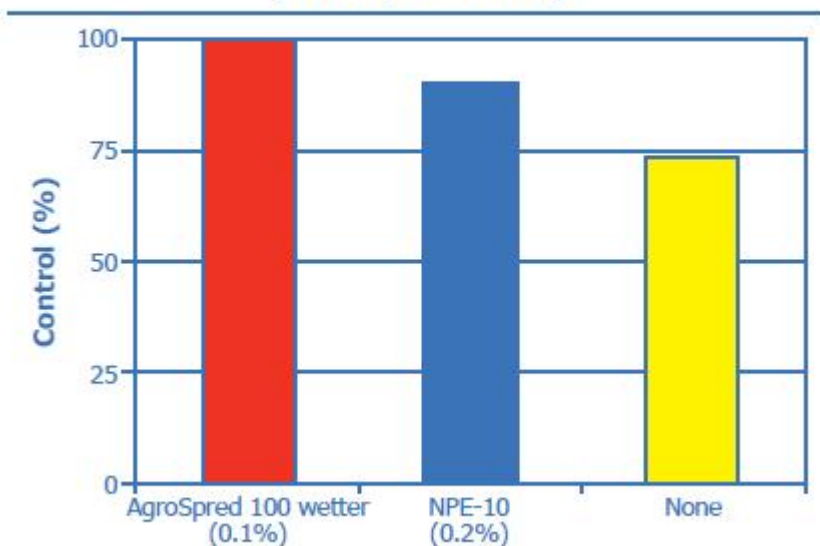
For use in neutral **in-can** formulations (pH 6.5 to pH 7.5), it is recommended that AgroSpred 100 wetter be included in the formulation at a level sufficient to deliver between 0.025% to 0.1% in the spray mixture upon dilution.

### Processing Recommendations

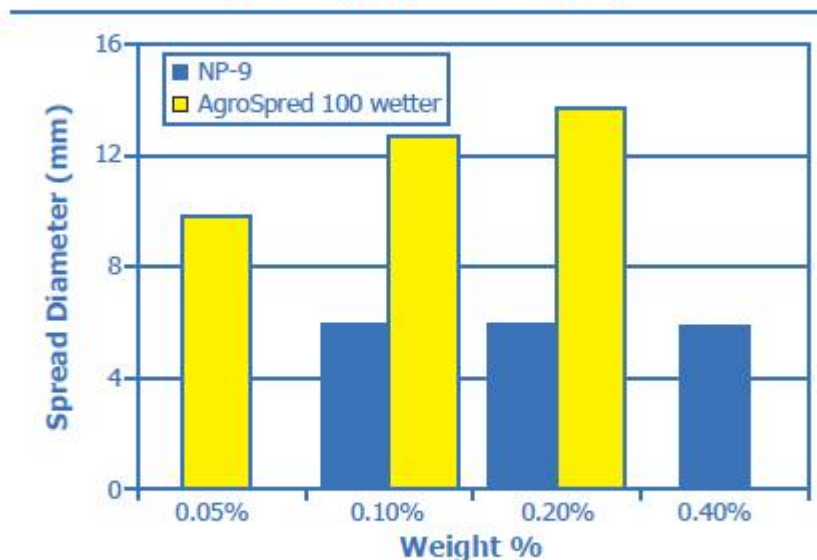
Typical nonylphenol surfactants are well known for their use as wetting agents, dispersants and emulsifiers in pesticide formulations. However, as some reports link nonylphenol to potential health and environmental hazards, formulators are considering alternative adjuvants for Ag products.

AgroSpred 100 wetter is an excellent candidate to consider for replacing NPEs. It typically offers better wetting than NPE, which may enable use at half the formulation amount than that of a typical NPE surfactant.

**NPE Replacement w/ 2,4-D Amine (0.1X)  
on *Amaranthus Retroflexus*  
(14 DAT, Rain 2 HAT)**



**Spreading Properties of Spray**



Note: Test data. Actual results may vary.

**Patent Status**

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Technical subject matter in this publication is described and protected by one or more of the following U.S. Patents and their foreign counterpart patents and/or patent applications: U.S. Patent Nos. 5,104,647; 5,558,806; 5,504,054 and 5,658,852. Other U.S. and foreign patents and/or patent applications not listed covering the subject matter may be relevant.

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**Contact Information**

Email

[commercial.services@momentive.com](mailto:commercial.services@momentive.com)

**Telephone**

|                         |                      |  |                     |
|-------------------------|----------------------|--|---------------------|
| <b>Americas</b>         | <b>Latin America</b> | <b>EMEA- Europe, Middle East, Africa &amp; India</b> | <b>ASIA PACIFIC</b> |
| +1 800 295 2392         | <b>Brazil</b>        | <b>Europe</b>  | <b>China</b>        |
| Toll free*              | +55 11 4534 9650     | +390510924300  | 800 820 0202        |
| +704 805 6946           | Direct Number        | Direct number  | Toll free           |
| Direct Number           |                      |  | +86 21 3860 4892    |
|                         |                      |  | Direct number       |
| *All American countries | <b>Mexico</b>        | <b>India, Middle East &amp; Africa</b>               | <b>Japan</b>        |
|                         | +52 55 2169 7670     | + 91 44 71212207                                     | +81 3 5544 3111     |
|                         | Direct Number        | Direct number*                                       | Direct number       |
|                         |                      | <b>*All Middle Eastern countries, Africa, India,</b> | <b>Korea</b>        |
|                         |                      |  | +82 2 6201 4600     |

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