Uniform, hyper dispersible granules for ease of use and powerful performance



Microthiol® Disperss

The unique sulphur formulation for effective powdery mildew control

Why Microthiol?

- Excellent dispersion characteristics
- Small particle size vs. standard wettable powder sulphur
- Low dust, dry flowable formulation improves worker safety
- Easy to disperse and re-disperse, no need to pre-mix
- Excellent compatibility
- BioGro certified

Sulphur is one of the key pillars in powdery mildew control. While there are many sulphurs on the market, only **Microthiol Disperss** comes with unique, uniform hyper-dispersible granules for improved performance.

What is Microthiol Disperss?

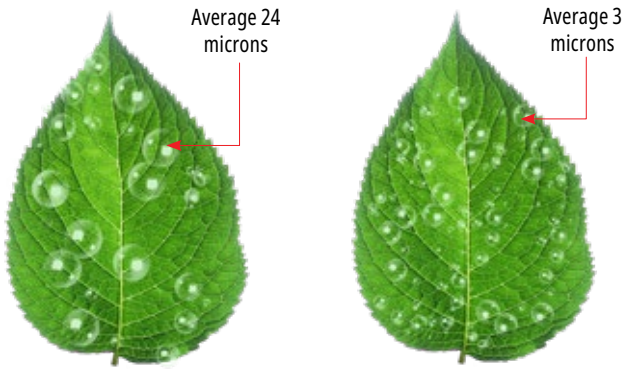
Microthiol Disperss is a unique, French-sourced sulphur, produced in an exclusive spray dry technology process that ensures uniform hyper-dispersible granules. It controls powdery mildew and erineum mite in grapes and diseases in other horticultural crops. BioGro certified, **Microthiol Disperss** goes into suspension quickly and completely, providing more consistent coverage and reduced phytotoxicity compared to traditional sulphur products. It can be measured more accurately, with virtually no dust.

Why use Microthiol Disperss?

Microthiol Disperss is a dry flowable formulation made of finely ground sulphur particles that primarily range in size from 1 to 6 microns with most particles being 3 microns. This improves suspendability in the spray tank and provides better leaf coverage with reduced phytotoxicity.

Microthiol Disperss sulphur particles average 3 microns compared to standard sulphur formulations, which average 24 microns (see fig. 1). This means 8x more particles are in **Microthiol Disperss** versus the standard, resulting in 8x more particles being available to cover and protect the leaf surface.

Fig. 1: Comparison standard sulphur versus Microthiol Disperss



How does Microthiol Disperss work as a fungicide?

The action of sulphur is complex and happens primarily in the respiration process (see fig. 3).

- When sulphur is applied to the plant, vapours are released.
- The powdery mildew mycelium produces hydrogen, which reacts with sulphur and forms hydrogen sulfide (H_2S), a gas toxic to the fungal pathogen.

Microthiol Disperss's small particle size increases the number of contact points with powdery mildew and in turn, increases the efficacy versus standard wettable powder sulphur.

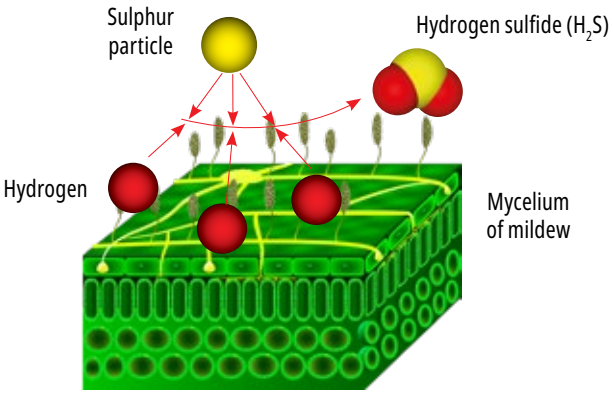


Fig. 3: Microthiol Disperss - Mode of action

The superior dispersion quality of Microthiol Disperss

Fig. 4: Dispersion of Microthiol Disperss



The unique formulation of **Microthiol Disperss** dissolves rapidly in water and stays in suspension longer than standard components with 80% remaining in suspension after 1 hour of standing (see fig. 4).

Advantages of Microthiol Disperss at a glance

Sulphur particle size
1 to 6 microns (median 3 microns) for better coverage, high efficacy with low phytotoxicity

Minimal dust
Free-flowing water dispersible granule

Instantaneous dispersion
Dissolves completely in water, with little to no residue left in the spray tank.

Wettability
Instantaneous when added to water

Excellent suspendability
The same suspendability in hard and soft water with 80% remaining in suspension after one hour, even after sitting; minimal agitation needed to re-suspend (compared to larger particle sulphur which tends to settle at the bottom of spray tank)

Getting the most out of Microthiol Disperss

Industry research from 2016 shows that adding a wetter/spreader significantly increased control compared to sulphur alone. **Ranger**®, a non-ionic spreader/wetter, maximises the spread and coverage of **Microthiol Disperss** sulphur on grape berries for more effective powdery mildew control.

MICROTHIOL® DISPERSS®

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Want to know more?

For more information on powerful powdery mildew control with **Microthiol Disperss**, contact your local merchant or UPL Regional Manager.

IMPORTANT
This technote is not intended to replace the product label. Always read the label carefully before using any product and follow label instructions.
For specialist advice in an EMERGENCY call 0800 243 622.

Ranger: Exempt from registration under the ACVM Act 1997. Microthiol Disperss: Registered pursuant to the ACVM Act 1997, No. P004795. See www.foodsafety.govt.nz for registration conditions. Approved pursuant to the HSNO Act 1996, Microthiol Disperss: No. HSR000816, Ranger: HSR002503. See www.epa.govt.nz for approval controls.
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