Below you will find freqently asked questions to keep you informed on the latest information regarding application rates, PPE and more for Mastercop from ADAMA.

### Q. What is Mastercop?

Mastercop is a 100% soluble, liquid copper sulfate pentahydrate fungicide/ bactericide for use in citrus, vegetables, tree crops, small fruits, vines & field crops. It is the only true copper solution with BioRetain<sup>™</sup> technology.

### Q. What is BioRetain?

It is a next generation formulation technology that delivers efficient use of smaller copper particles to the plant. This means better spray coverage with uniform & quick distribution of copper metallic ions as well as an improved uptake system It permits more bio-available copper to penetrate the cuticle and adhere to the plant's surface. With broad-spectrum protection and multi-site activity, it is ideal for Integrated Pest Management programs.



### Q. What is Mastercop active ingredient?

The active ingredient is Copper Sulfate Pentahydrate.

# Q. What is the % Metallic Copper Equivalent (MCE) of Mastercop?

The MCE is 5.4%.



### **Active Ingredient**

Copper Sulfate Pentahydrate

#### **Target Crops**

Berries, Cucurbits, Grapes, Fruiting Vegetables, Onions, Pome, Potatoes, Tree Nuts

#### **Target Pests**

Anthracnose, Bacterial Spot, Citrus Canker, Downy Mildew, Early Blight, Late Blight, Leaf Blight, Powdery Mildew and More



### **Mastercop**®

FAQs continued...

#### Q. What are the benefits of Mastercop?

- 100% water soluble means no settling in the jug
- BioRetain delivers excellent bioactivity & performance
- Less elemental copper reduces the risk of copper soil-loading
- No blue stained fruit or foliage
- OMRI Listed<sup>®</sup> so you can use one product for both organic and conventional acreage
- Less nozzle/spray equipment wear
- Better tank mix partner

## Q. What is the benefit of having a smaller particle size like Mastercop does?

The smaller the particle size, the greater the number of particles per gram, thus a larger surface area for better coverage and more effective fungicidal or bacterial activity.

## Q. How soluble is Mastercop compared to traditional coppers?

Most copper fungicide spray solutions are actually a suspension of copper particles that persist on plant surfaces after the spray dries. Then the copper ions are re-activated every time they come into contact with moisture on the leaf. This limited solubility is meant to avoid phytotoxicity. Mastercop is 100% soluble in water, resulting in the immediate release of effective copper ions without the risk of phyto.

# Q. Is the pH of water important to know when using Mastercop on your crops?

If the pH of water used in spray solutions with other copper products is below 7.0, the solubility of copper increases and more copper ions are released, which can lead to phytotoxicity. Because Mastercop is already 100% soluble in water, the pH of water is not important. Copper ions are immediately bioavailable, without the risk of damage to fruit & foliage.

#### Q. Is Mastercop appropriate for organic use?

Yes! Mastercop is OMRI Listed<sup>®</sup>.

# Q. What is the effect of water hardness on copper fungicide performance?

Poor water quality can adversely influence many traditional copper products by reducing solubility, thereby decreasing performance. Mastercop performs well under hardwater conditions up to 600 ppm.

#### Q. What is the PPE requirement for Mastercop?

- Protective eyewear
- Long-sleeve shirt
- Long pants
- Chemical resistant gloves
- Shoes plus socks

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For more detailed information on pests, application rates, timing, and handling of Mastercop, please see the full product label or connect with us at adama.com.

### **Mastercop**<sup>®</sup>

FAQs continued...

#### Q. Does Mastercop have better leaf retention/ absorption versus the competition?

Yes! BioRetain's novel uptake system enhances leaf adhesion, penetration to stay where it's sprayed, retention and bio-availability while providing superior safety to the crop.



# Q. What kind of residual activity does Mastercop offer?

On average, Mastercop offers 7 days of residual control, while offering quick knockdown of diseases with less phytotoxicity risk and no staining compared to traditional coppers.

# Q. What products should I avoid in a tank mix with Mastercop?

Mastercop is compatible with most of the pesticides present in the market.

### Q. Does Mastercop have a shelf-life limitation?

All soluble concentrates for ADAMA US have 2 years of shelf-life and are expected to settle with time as a result of gravity. It should be possible to make it flowable after gentle mixing, within the prescribed shelf-life. From our experience, a 3-4 year old Mastercop sample showed jellification to some extent, but once it was mixed gently, it became homogeneous and there was no issue of pourability or dilution/application.

#### Q. Does Mastercop mark fruit like traditional coppers?

No! With its low percentage of metallic copper and because it's already 100% soluble in water, Mastercop is pH independent which significantly reduces phytoxocity and eliminates coating and staining on fruits.



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