

MMS 101: A Beginner's Guide to using MMS

MMS is a wonderful product with many uses. In fact, MMS is being used in so many ways, it is difficult to keep up with them all. MMS is a unique product because it comes in two parts that are used together. There are many things on the market today which follow this same method of combining two things together to create a usable product. MMS works the same way. Two things are put together to create something else that is usable for you.

If you are new to MMS, you may be confused about exactly how MMS works, how to prepare it, and what to do with it. This guide will walk you step by step through the most important knowledge you need for using MMS, provide you with directions to get you started, and answer a few important questions that may come up when as use your MMS.

Part 1: Basic chemistry

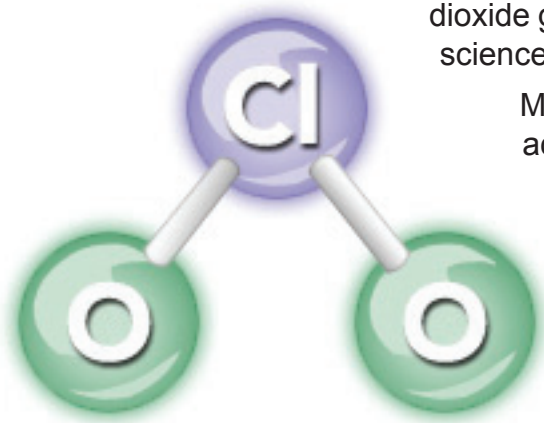
MMS is an oxidizer. What is an oxidizer? The simple answer is that an oxidizer is any molecule or compound that takes electrons from another molecule or compound. That is oxidation. Why is this important? When a molecule quickly loses electrons, it tends to fall apart and cease to exist or lose its charge. We'll return to this idea shortly, but first, we need to explore the chemistry behind MMS a bit more.

Think back to a memory you have of seeing baking soda mix with vinegar. There is a lot of fizzing, and a unique smell is produced as the vinegar and baking soda mix together to create bubbles of CO₂. If you have never seen this done, try it!

What happens when the baking soda and vinegar mixes together? Vinegar is very acidic, and baking soda is very alkaline. When the two compounds interact, a chemical reaction takes place, which is what you see and smell as bubbles of carbon dioxide are created.

This same principle is the basis for MMS, which is made up of sodium chlorite in water. Just like baking soda, sodium chlorite is very alkaline. When the alkaline sodium chlorite in your MMS interacts with the citric acid activator, a chemical reaction takes place. But instead of making carbon dioxide bubbles like vinegar and baking soda, this chemical reaction creates chlorine dioxide gas.

Chlorine dioxide gas is what 'does the work' in MMS. Chlorine dioxide gas is the oxidizer. With this in mind, it is now easy to put the science of MMS into plain English.



MMS is made up of sodium chlorite, which is alkaline, and citric acid, which is acidic. When these two compounds interact, a chemical reaction takes place, which produces chlorine dioxide gas. The chlorine dioxide gas is the oxidizer, and it has the ability to oxidize, or take electrons from, certain other molecules and compounds, pathogens such as salmonella and metals such as lead and mercury.

The Chlorine Dioxide Molecule

Part 2: Using MMS

Since MMS is a two-part product, there are a few simple directions to follow whenever using MMS. There are two sets of directions that must be performed correctly when using MMS. The first is correctly mixing your activator. The second is correctly activating your MMS for use.

Mixing your activator is simple, and if you can follow a simple recipe then you will have no trouble at all. MMS activator is made up of 10% citric acid dissolved in water. This means that there is a nine-to-one ratio of water and citric acid.

You will need:

- A tablespoon, teaspoon, soup spoon, or other small item that can be used for measuring;
- A clean and dry glass;
- Food grade citric acid crystals;
- Activator bottle;
- Water.

Measure one level spoonful of citric acid crystals add them into the glass. Measure out nine spoonfuls of water and add them to the citric acid in the glass. Stir the water evenly with your measuring spoon or a stirring stick to dissolve the citric acid into the water. When the citric acid has completely dissolved, pour the solution into your activator bottle and screw the cap on tightly. You have now prepared the activator that you will use with your MMS. Keep it stored in a dark, dry place away from children.

Activating your MMS for use is a simple process. After you have done it a few times you will be able to activate MMS properly with no trouble at all. Follow these directions closely and you will find the process very easy.

You will need:

- A clean, dry glass or cup;
- MMS bottle;
- Activator bottle;
- A clock.

The most important thing to remember when activating MMS is the ratio of five drops of activator for every one drop of MMS. If you want to activate one drop of MMS, use five drops of activator. If you want to activate 12 drops of MMS, use 60 drops of activator – $12 \text{ drops MMS} \times \text{five drops activator per drop of MMS} = 60 \text{ drops of activator}$. Use this ratio whenever you activate MMS.

Squeeze the desired amount of drops of MMS into your clean dry glass or cup. Close the dropper cap and set MMS aside. Squeeze the appropriate amount of activator drops into the glass or cup, using five drops of activator for every drop of MMS. Rotate the glass gently in a circular motion or stir the liquid with a spoon to completely mix the MMS and activator together.

When the liquids have mixed, allow three minutes for the MMS to react with the citric acid. You will notice within the first minute that the liquid takes on a yellow-orange color. This is the natural color of chlorine dioxide gas. You may also detect the clean smell of chlorine at the mouth of the glass.

After three minutes, your activated MMS is ready to use for a variety of purposes.

Part 3: Frequently asked questions and tips

Q: Why is there a three minute wait after adding the activator?

A: During the three minute wait, the sodium chlorite and citric acid have a chance to react. Testing has shown that it takes about three minutes for the reaction to create an efficient amount of chlorine dioxide gas. If less time is given for the reaction to take place, the chlorine dioxide generated is not as strong as it can be if given a full three minutes. Likewise, after three minutes the amount of chlorine dioxide generated reaches maximum efficiency and remains that way for the next hour or so. This means that once MMS has been activated, it will remain at full strength for up to an hour after activation.

Q: What happens when MMS is diluted?

A: Imagine a pool table with one hundred pool balls on it. If all of these pool balls are in motion at the same time, there is a very good chance that many of them will bump in to each other. Now remove those pool balls and put them on a gymnasium floor. Because the new environment is so much bigger, these same pool balls will bump in to each other much less often.

This analogy explains what happens when MMS is diluted. In the first three minutes of activation, chlorite molecules and citric acid molecules are in close proximity and react rapidly, which generates a lot of chlorine dioxide in a short amount of time. Once diluted, the molecules are now in a much larger environment, which means they do not bump into each other nearly as often as when they were undiluted. The molecules continue to react but at a slower pace, spreading the period of oxidation over a longer period of time and space.

Because chlorine dioxide is a strong oxidizer, diluting it is good for two reasons. First, diluting makes the chlorine dioxide much more user friendly, in the same way that diluting bleach makes it much more tolerable to use. Second, diluting allows a long period of time to pass so that water can carry the MMS into hard-to-reach places before it reacts to create chlorine dioxide.

Q: What happens if my drop count is off slightly?

A: This is a good question and one we are asked quite often. The simple answer is that there is no harm done in a slight miscount of the exact number of drops you use. As long as you are as close as possible to the correct number of drops you will be fine. If there is a little too much activator, chlorine dioxide will be created a bit faster and last a bit shorter period of time, while if there is too little activator, chlorine dioxide will be created a bit slower and last a bit longer. We'll illustrate this with a couple examples.

Example: You want to activate two drops of MMS with ten drops of activator. You count two drops of MMS and accidentally drop in 12 drops of activator. In this case, your MMS might reach full potency in two and a half minutes rather than three, and the reactions between the chlorite and citric acid might end an hour or two earlier than if only ten activator drops had been used. This is a slight change that will have no serious effect on your use of MMS.

Q: 150 drops is a lot of counting to activate 30 drops of MMS. Is there a shortcut?

A: We recommend devoting a small spoon or half-gallon container cap to measuring out activator. Fill the spoon or container with activator drops, counting the drops as you go to determine the number of drops the container holds. If you are using a container cap, you can also mark drop numbers on the side of the cap with a pen or marker. Once you have done this, you can use your MMS spoon or cap to measure large drop numbers with sufficient accuracy.

Q: Do I have to time the three minutes?

A: We recommend doing so the first few times for practice, but after several times activating MMS and observing the process you will develop a good sense of when three minutes have passed and your MMS is ready to use.

Q: Is citric acid the only available activator?

A: No. The two most popular alternatives are vinegar and lemon juice. Citric acid has been tested and shown to create a much more efficient reaction with sodium chlorite, which means you will get more out of your MMS products by using citric acid solution as your activator. However, if you find reason to replace citric acid as your activator, both vinegar and lemon juice will effectively catalyze the reaction of sodium chlorite into chlorine dioxide.



Please visit us at <http://www.getmms.org> for more information and the widest selection of MMS products on the market today.