

chlorine dioxide

Sodium Chlorite Solutions (SCS) Dosing vs CLO₂ Content Comparison Charts

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Have you ever wondered **how much** CLO₂ (chlorine dioxide) you are getting in your dose of MMS1, CDH or CDS? If CLO₂ is the magic ingredient in SCS, and apparently it is, why don't we know the **quantity** of CLO₂ in our doses? The following will show how we can find an approximate answer to this question. By the way, Jim Humble talked about dosing CLO₂ in milligrams per drop of MMS in his 2006 book.

If you take vitamin supplements the **amount** or **quantity** of the vitamin(s) per tablet, capsule or softgel is listed on the container label. For instance, on a bottle of vitamin C it says each capsule contains 500 mg. A bottle of calcium plus magnesium says 300 mg + 150 mg per 2 capsules. Turmeric, 720 mg per capsule.

That sort of information is not normally listed on the container of SCS you may have. In some cases the quantity of CLO₂ per dose could be on the label, such as on a bottle of CDS. If the bottle contains 3000 ppm CDS, the label could say: "1 ml contains 3 mg CLO₂" and that would be correct for ingestion and external use. For MMS1 and CDH, it is more difficult to state the amount of CLO₂ per dose.

The following two charts will show you **how much** Chlorine Dioxide (CLO₂) you may have in your MMS1, CDH and CDS doses. The non-ingested chart is accurate because CLO₂ amounts have been measured and calculated. The ingested chart is also accurate **if** the residual MMS in MMS1 and CDH are fully activated in stomach acid. This is similar to determining if our bodies are fully utilizing food and supplements. CDS is fully activated externally and won't increase or decrease in stomach acid.

Note that dilution (water you add to your doses) does not cause the **amount** of CLO₂ to change.

Some people say that 1 ml of 3000 ppm CDS or CDH is equal to a 3 drop MMS1 dose (1=3). The charts clearly show that is not true, especially when ingested. Help us stamp out **fake news** by spreading the truth!!!

If you were measuring CLO2 **concentration**, dilution would make a difference in the concentration value. CLO2 concentration of a SCS can be measured using CLO2 test strips.

Those test strips can tell you the CLO2 **concentration** of your dose, but they will not tell you **how much** CLO2 you have in the dose. And, you can only measure CLO2 concentration outside your body; you can't measure CLO2 concentration in your stomach with test strips. You also can not measure CLO2 concentration in simulated stomach acid because the pH is too low; the test strips are only accurate down to pH 3. Stomach acid is about pH 1.

You can calculate the **amount** of CLO2 in your SCS dose, knowing the CLO2 concentration and the amount of water, but it is easier to look at the charts to find that information.

As noted at the bottom of the ingestion chart, full activation is assumed for ingested doses of MMS1 and CDH. That should happen if you have normal amounts of stomach acids. If you don't have enough stomach acid, then the amount of CLO2 will be less in your stomach.

If you know you have very little or no stomach acid, the best SCS would be CDS followed by CDH then MMS1. With no stomach acid, refer to the non-ingested chart to see the CLO2 amounts each SCS will provide.

The amount of CLO2 in CDS doses won't change in stomach acid because there is no residual MMS to activate in stomach acid as there is in both MMS1 and CDH. MMS1 is about 10% activated before it enters your stomach and CDH is about 50% activated.

MMS Drop* Size vs CLO2 Quantity

CDS & CDH are normally dosed using milliliters instead of drops. You can use drops, but it can get tiresome waiting for so many drops to leave your dropper. And, drop dispensers can be very inaccurate. Syringes and pipettes are calibrated so you know how much solution you are dispensing.

For ingestion, to get the same amount of CLO₂ in CDS as in an ingested 1 drop, fully activated dose of MMS1, you would need 2.2 ml of 3000 ppm CDS. That would be 53 drops when drop size is 0.042 ml (when using the standard of 24 drops per ml). For CDH, use 1 ml or 24 drops. See [these charts](#) for other dosages.

These quantities of CDS and CDH (and the amounts of CLO₂ they represent) were partially based on a standard that Jim Humble used for years, which was a drop size of 0.042 ml. Today he uses a more common standard where the drop size is 0.05 ml. That is 20% larger meaning dosing will be 20% stronger and his MMS1 protocols have not been changed to reflect his new standard.

The old drop size standard was 24 drops per milliliter. The new standard is 20 drops per milliliter. Since there are 4 fewer drops, the drops must be larger by 20% to fill the same 1 milliliter of volume. Older testing used the 24 drops/ml standard and will continue to be used, so old and new testing results can be compared.

Of course, most people dispensing drops have no idea what the drop size is from their dropper. I have seen drop size vary by a factor of 2. That could mean you may be taking a dose too strong or too weak than what you think you are taking. You can calibrate your dropper so you can dose accurately.

The old rule of when you overdose, to reduce dosage until your discomfort (nausea, diarrhea, vomiting) stops, should take care of this 20% larger drop size problem. On the other hand, if taking doses too weak, you may not solve your health problem.

And all this info is based on the fact that there are 6.7 mg of CLO₂ per drop of 22.4% sodium chlorite solution (MMS) when the drop size is 0.042 ml and the drop is fully activated. ([MMS1 ppm/mg vs Activation Time Testing Charts](#))

<https://mmsforum.io/goto/general/32287-where-to-buy-parts-to-create-cds#60609>

MMSinfo.org 25 May 2019 MMS_Drop_Size_vs_CLO2_Quantity

How-to-Use the Dosing Charts

Some people freak out when they see charts or graphs such as the two charts on the following pages. To calm the fears of those who think they can't use the charts, I will show some examples that should prove otherwise.

Let's say you are beginning to follow the Starting Procedure Protocol and you have a bottle of 3000 ppm CDS. The protocol says to take 1/4 drop MMS1 doses during day one of the four day protocol. How much CDS will you take for every consecutive hourly dose?

Looking at the first chart, the Ingestion Chart, in the first column MMS Drops the first entry in row 1 is 1/4 drop (MMS1 dose). (see sample chart at the bottom of this page)

In the next column, MMS1 (mg of CLO₂) in the same row 1, you will find 1.8 mg of CLO₂. That is how much CLO₂ 1/4 (one fourth) of an activated MMS drop (MMS1) will produce in a stomach with normal amounts of stomach acid.

Now, look at the fourth column CDS and find the closest number to 1.8 mg of CLO₂. We find the entry in row 2 to be 1.5 mg of CLO₂. That is very close to 1.8 mg, so we will use that number.

Follow across to the right to the last column CDH or CDS, ml in row 2 and you will see 1/2 ml. That is the amount of CDS that will provide 1.5 mg of CLO₂. You will be taking 1/2 ml of CDS (added to some water) every hour, for eight consecutive hours during day one.

If you wanted to take the equivalent amount of CLO₂ using CDS, to a 3 drop MMS1 dose, (which is 20 mg from the second column, row 5, opposite 3 drops found in the first column), you will take about 7 ml of CDS. That dosage can be found in columns 4 & 5 in row 9. If using CDH, you would take 3 ml.

If you need help using the charts, go to <https://mmsinfo.org/> and click on "Ask a Question" and I will reply via email to you.

SAMPLE CHART

Sodium Chlorite Solutions (SCS) Ingested Dosing vs CLO₂ Content Comparison Chart				
MMS Drops*	Milligrams of CLO₂ (Chlorine Dioxide)			CDH or CDS ML
	MMS1	CDH	CDS	
1/4	1.8	1.8	0.8	1/4
1/2	3.4	3.4	1.5	1/2
1	6.7	6.7	3	1
2	13	13	6	2
3	20	20	9	3
4	27	27	12	4
5	34	34	15	5
6	40	40	18	6
7	47	47	21	7
8	54	54	24	8

What follows is a discussion about why we need these charts in order to dose CDS and CDH when following Jim Humble's MMS1 protocols.

The reason for writing this paper on MMS dosing vs the amount of chlorine dioxide (CLO₂) in each dose is because, up to now, there has been no way to know how much CDH or CDS to use when following MMS protocols, which were written for MMS1 use.

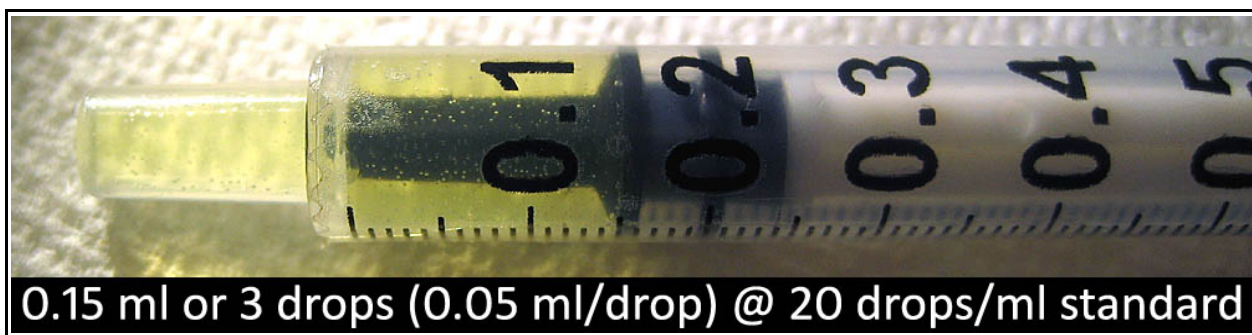
If we can find a common factor among these three Sodium Chlorite Solutions (SCS) MMS1, CDH, and CDS that will allow us to compare one to another, then maybe we can find equivalent dosing between the three.

There is such a common factor and that is the **amount (weight) of CLO₂** each SCS contains or can produce. The unit of measurement for the amount of CLO₂ is its weight **expressed in milligrams (mg)**.

A chemist (Tomas Horky) told the MMS Forum some years ago that each drop of MMS contains 6.7 mg of CLO₂. (when drop size is 0.042 ml, when using the standard of 24 drops = 1 ml)

That means a 1 drop dose of MMS1 contains 6.7 milligrams of CLO₂. And so does 1 milliliter of CDH (McRae/Lackney recipe) because each milliliter of CDH was made from 1 drop of MMS. **That 6.7 mg of CLO₂ is available if MMS is fully activated.** One milliliter of 3000 ppm CDS contains 3 mg of CLO₂.

We should be able to label a bottle of MMS1, CDS and CDH stating how many milligrams of CLO₂ are in each dose. That is how supplements and pharma meds are labeled. (Yes, for MMS1 & CDH how many milligrams of CLO₂ are released from MMS is dependant on the amount of stomach acid available.) When we say "take a 3 drop dose of MMS1", that does not tell you how much CLO₂ is in the dose nor how much more may be released from residual MMS in your stomach.) Drop size (which can vary by a factor of 2) is never mentioned. **It is very simple to accurately measure out drops using an inexpensive 1 ml syringe.** Below is an example of 0.15 ml of solution. (it is actually CDS)



Instead we should say, "Begin taking 1.8 mg of CLO₂ on day one of the [Starting Procedure](#)," etc. When the user consults instructions on how to determine the correct dosing, they will choose the correct dosage depending on which SCS that have; MMS1, CDH or CDS.

Rather than worry about how much stomach acid you have in your stomach to activate residual MMS (when using MMS1 or CDH), why not follow Rule #3 of Jim's *Three Golden Rules of MMS* ? Part 1 of that rule says if you are not seeing an improvement in restoring your health with the SCS you are using, slowly increase the dosage. Or, if you suspect you have low stomach acid and are using MMS1, try using CDH (which produces much more CLO₂ when externally activated than [MMS1](#)). CDH will put more CLO₂ into your stomach. CDS (which does not contain any residual MMS or acid activator) will not increase nor decrease in CLO₂ content in stomach acid, so it may be a better choice for you.

**Sodium Chlorite Solutions (SCS) Ingested
Dosing vs CLO2 Content Comparison Chart**

MMS Drops*	Milligrams of CLO2 (Chlorine Dioxide)			CDH or CDS ML
	MMS1	CDH	CDS	
1/4	1.8	1.8	0.8	1/4
1/2	3.4	3.4	1.5	1/2
1	6.7	6.7	3	1
2	13	13	6	2
3	20	20	9	3
4	27	27	12	4
5	34	34	15	5
6	40	40	18	6
7	47	47	21	7
8	54	54	24	8
9	60	60	27	9
10	67	67	30	10
11	74	74	33	11
12	80	80	36	12
13	87	87	39	13
14	94	94	42	14
15	100	100	45	15
16	107	107	48	16
17	114	114	51	17
18	121	121	54	18
19	127	127	57	19
20	134	134	60	20

CDH is 3500 ppm **Chlorine Dioxide Holding** (solution) (the original McRae-Lackney recipe)

CDS is 3000 ppm **Chlorine Dioxide Solution** that does not contain any added MMS

Most Milligram values above rounded to the nearest 1 mg

1 drop of fully activated MMS contains 6.7 mg CLO2

Dilution will not change the CLO2 quantities (mg)

Full activation is assumed for MMS1 and CDH

24 drops/ml standard used (1 drop=0.042ml)

**Sodium Chlorite Solutions (SCS) Non-ingested
Dosing vs CLO2 Content Comparison Chart**

MMS Drops*	Milligrams of CLO2 (Chlorine Dioxide)			CDH or CDS ML
	MMS1	CDH	CDS	
1/4	0.2	0.9	0.8	1/4
1/2	0.3	1.8	1.5	1/2
1	0.67	3.5	3	1
2	1.3	7	6	2
3	2	10	9	3
4	2.7	14	12	4
5	3.4	18	15	5
6	4	21	18	6
7	4.7	24	21	7
8	5.4	28	24	8
9	6	32	27	9
10	6.7	35	30	10
11	7.4	38	33	11
12	8	42	36	12
13	8.7	46	39	13
14	9.4	49	42	14
15	10	52	45	15
16	10.7	56	48	16
17	11.4	60	51	17
18	12	63	54	18
19	12.7	66	57	19
20	13.4	70	60	20

CDH is 3500 ppm **Chlorine Dioxide Holding** (solution) (the original McRae-Lackney recipe)

CDS is 3000 ppm **Chlorine Dioxide Solution** that does not contain any added MMS

1 drop of non-ingested 4% HCL activated MMS contains 0.67 mg CLO2

Most Milligram values rounded to the nearest 0.1 or 1 mg

Dilution will not change the CLO2 quantities (mg)

24 drops/ml standard used (1 drop=0.042ml)

MMS1 activated in an open-top container