

# How to make CDS – Detailed Version

## Chlorine Dioxide Solution

### (ClO<sub>2</sub> + H<sub>2</sub>O)




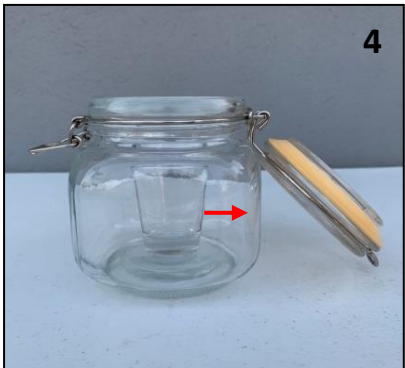

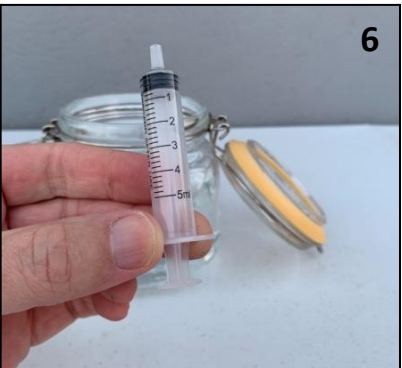
Ensure all items listed in **table 1** are available.

#	Items Needed for Making MMS	Where to Purchase
1	Mason Jar	<a href="#">Amazon</a>
2	Distilled Water	Purchase Locally
3	Shot Glass	<a href="#">Amazon</a>
4	Syringe (5ml)	<a href="#">Amazon</a>
5	MMS, Sodium Chlorite 25% Solution	<a href="#">Purchase</a> or Make
6	Hydrochloric Acid (HCl) 4% solution	<a href="#">Purchase</a> or Make

See page 6 for “How to make CDS – Quick Version”



**Table 1**

Make sure the working area is clean and clear. Place airtight Mason jar on table.	Make sure the Mason jar is clean and dry.	Make sure shot glass is clean and dry. Place shot glass inside of Mason jar.
		
Push the shot glass to one side of the Mason jar.	Pour distilled water into the Mason jar. Ensure that the water level is a ¼” (6mm) below the shot glass brim.	Use a 5ml syringe to measure Sodium Chlorite (NaClO <sub>2</sub> ) and Hydrochloric Acid (HCl).
		

If desired, syringe plunger can be removed to simplify filling. Note, 4% HCl is a weak solution. Hands can be washed when done.



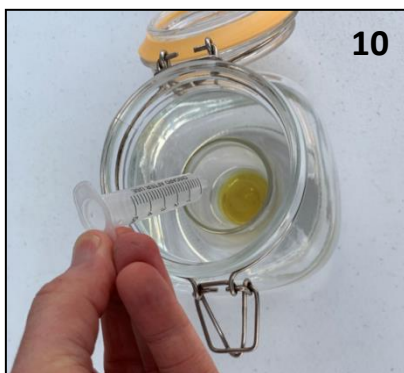
Fill syringe with 5 ml of Sodium Chlorite. Release Sodium Chlorite into shot glass. Make sure it only enters the shot glass.



Fill syringe with 5 ml of Hydrochloric Acid. Release Hydrochloric Acid into shot glass. Make sure it only enters the shot glass.



The Sodium Chlorite will begin to react with Hydrochloric Acid to create Chlorine Dioxide.



Close the Mason jar lid to prevent Chlorine Dioxide gas from escaping.



Ensure that the Mason jar lid is locked.



Chlorine Dioxide gas will begin to buildup within the Mason jar and infuse into distilled water.




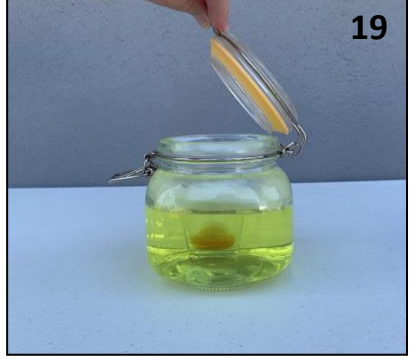

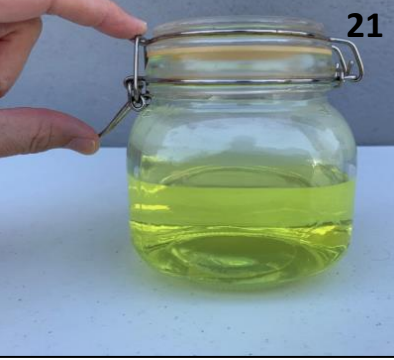














Place the Mason jar in a cabinet.



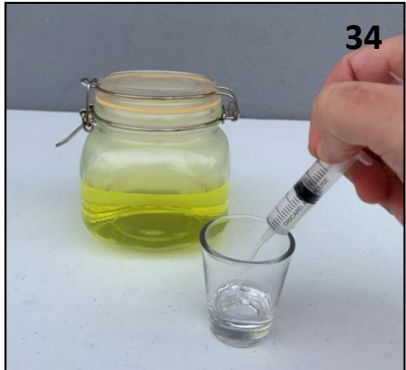


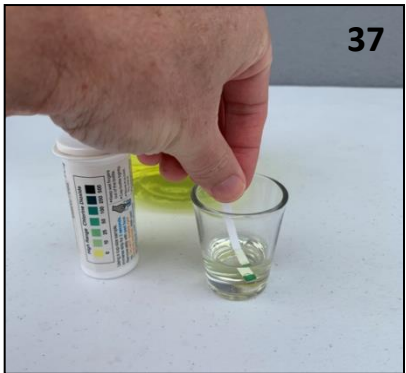
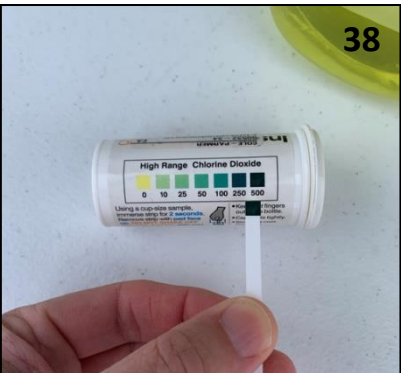

Make sure the temperature is well above 51.8° F (11° C). Higher temperature will increase gas off and decrease infusion time.



<p>Wait 12 to 24 hours for Chlorine Dioxide to infuse into distilled water.</p>	<p>Remove Mason from cabinet. Ensure the working area is clean and clear before placing Mason jar on table.</p>	<p>Make sure the Mason jar is unlocked outdoors or in a well ventilated area.</p>
 <p>16</p>	 <p>17</p>	 <p>18</p>
<p>Warning, high concentrations of Chlorine Dioxide gas have built up within Mason jar. Stand back when opening.</p>	<p>Remove shot glass with content.</p>	<p>Close and lock Mason jar to avoid losing Chlorine Dioxide gas.</p>
 <p>19</p>	 <p>20</p>	 <p>21</p>
<p>The contents in shot glass can either be disposed of or used as a disinfectant (i.e. Spray bottle with water).</p>	<p>If desired, pour shot glass contents into spray bottle.</p>	<p>Dilute spray bottle contents with water. Can be used to disinfect floors, countertops, bathrooms, etc.</p>
 <p>22</p>	 <p>23</p>	 <p>24</p>

<p>Replace spray bottle spray handle.</p>	<p>Open lid and place shot glass into Mason jar again.</p>	<p>Ensure that shot glass is placed in the center of Mason jar.</p>
 <p>25</p>	 <p>26</p>	 <p>27</p>
<p>Fill syringe with 5 ml of Sodium Chlorite. Release Sodium Chlorite into shot glass. Make sure it only enters the shot glass.</p>	<p>Fill syringe with 5 ml of Hydrochloric Acid. Release Hydrochloric Acid into shot glass. Make sure it only enters the shot glass.</p>	<p>The Sodium Chlorite will begin to react with Hydrochloric Acid to create Chlorine Dioxide.</p>
 <p>28</p>	 <p>29</p>	 <p>30</p>
<p>Close lid and lock Mason jar. Chlorine Dioxide gas off and infuse into distilled water.</p>	<p>Place the Mason jar in a cabinet.</p>	<p>Wait 12 to 24 hours for Chlorine Dioxide to infuse into distilled water.</p>
 <p>31</p>	 <p>32</p>	 <p>33</p>

## How to Test Chlorine Dioxide Parts Per Million (PPM)

Place 9 ml of distilled water in a glass.	Place 1 ml of Chlorine Dioxide in a glass with distilled water.	Give glass a swirl and before testing Chlorine Dioxide ppm with test strip.
 <p>34</p>	 <p>35</p>	 <p>36</p>
Place test strip in diluted solution for 2 seconds and wait 10 seconds for final results. Compare color to bottle label.	The ppm should be around 300 ppm when diluted with 9 ml of distilled water. This means final concentration is 3,000 ppm.	Store CDS inside a refrigerator. Note, temperatures greater than 51.8°F (11°C) to cause the Chlorine Dioxide to gas off.
 <p>37</p>	 <p>38</p>	 <p>39</p>

The attached video shows how Andreas Kalcker makes CDS.

<https://www.brighteon.com/98951596-048d-403f-85c3-db5ff006d0ef>

# How to Make CDS – Quick Version

## Chlorine Dioxide Solution ( $\text{ClO}_2 + \text{H}_2\text{O}$ )

1

In an airtight glass Mason jar insert a shot glass.

Next, add distilled water inside the glass Mason jar. Ensure that no distilled water enters the shot glass.

Make sure the water level is a  $\frac{1}{4}$ " (6mm) below the shot glass.

350 to 500 ml of distilled water



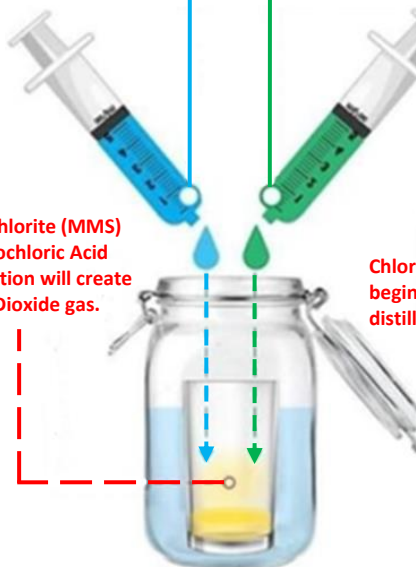
Use a syringe to add (5 ml) of Sodium Chlorite (25% solution) inside the shot.

2

Use another syringe to add (5 ml) of Hydrochloric Acid (4%) inside the shot glass.

Sodium Chlorite (MMS) and Hydrochloric Acid (HCl) reaction will create Chlorine Dioxide gas.

Chlorine Dioxide gas begins to saturate the distilled water.



Quickly close the Mason jar lid to avoid inhalation and loss of Chlorine Dioxide gas.

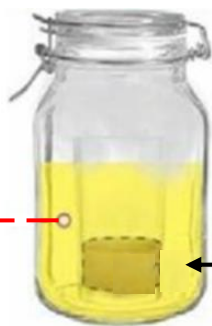
The Mason jar should be placed in a dark place (i.e cabinet) for at least 12 hours. Make sure ambient temperature is greater than 51.8° F (11° C). Keep out of reach of children.



4

After 12 hours, the distilled water inside the Mason jar should have a yellow/amber color.

CDS with 1,500 ppm of Chlorine Dioxide must repeat the process to reach 3,000 ppm.



5

Open the bottle and remove the shot glass containing the excess solution. Avoid inhaling the gases that come out of the Mason jar.

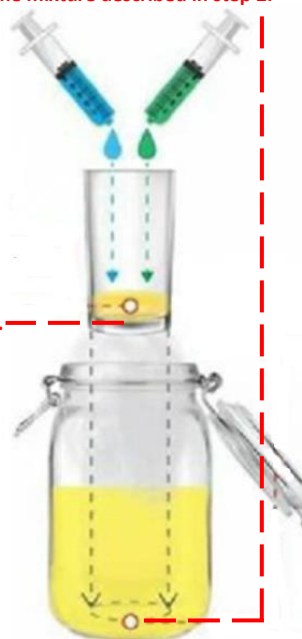
Store the excess solution in another bottle (i.e spray bottle). This excess solution can be used as a disinfectant to clean surfaces.



6

Reinsert the shot glass with the same mixture described in step 2.

Repeat step 2.



7

Repeat step 3 again.

The idea is to repeat steps 2 and 3 in order to reach a Chlorine Dioxide concentration of 3,000 ppm.

After 12 hours, CDS will obtain an optimum quality ready to be used.

CDS should have 3,000 ppm of Chlorine Dioxide.



## How to Take CDS ( $\text{ClO}_2 + \text{H}_2\text{O}$ )

### Steps for Preparing CDS

1. Using a syringe with milliliter markings, place desired amount of CDS in a clean, dry glass.
2. Add 4 oz. (120 ml) of filtered/distilled water to glass
3. Drink CDS with filtered/distilled water.

