

CDS - Chlorine Dioxide Solution

Pre-Class Homework



<https://theuniversalantidote.com/wp-content/uploads/2023/04/v1.5.1-mob-The-Ultimate-Guide-to-Chlorine-Dioxide.pdf>

1. Name at least three warnings and cautions about handling CDS.
2. Best practices of NaClO₂ and CDS? (Choose all that apply)
 - Avoid sunlight
 - cool, dry, dark place,
 - store in the kitchen cabinet
 - Use only plastic containers and utensils.
 - Always use Air tight containers
 - Properly LABEL your chemicals and containers
 -
3. Where are more resources about using CDS and Chlorine Dioxide?
 - KalckerInstitute.com
 - theuniversalantidote.com**
 - telegram channels: ClO₂ solutions, MMS Info, COMUSAV, CDS video, ClO₂. scientific papers,...
 - Books by Andreas Kalcker
 - Google Patent search Chlorine Dioxide ClO₂
 - chlorinedioxidetruth.weebly.com
 - all of the above
4. What are some uses for the activated solution?
5. Who can use CDS?

Supplied for class and take home.

500mL mason jar, tall shot glass, plastic funnel, brown storage bottle, measuring spoon, distilled water, and enough prepared NaClO₂ 28% and HCL 8% to make your first batch.

At Home for your next batch, purchase sodium chlorite flakes from <https://pforlife.com> and Hydrochloric Acid from any hardware store. Save tinted glass bottles that have a plastic cap for your chemistry stock. Properly label bottles. NaClO₂, HCL, ClO₂, etc.

For Protocol C Use a 1 Liter tinted glass or plastic bottle for your daily water purifier formula.

$$C1V1 = C2V2$$

$$Vd = V2 - V1$$

$$1 \text{ mL} = 1 \text{ gram}^*$$

Dilution Math & Calculator

C1 starting stock concentration

V1 volume of starting stock

C2 desired stock concentration

V2 desired stock volume

Vd volume diluent (distilled water)

www.synthace.com/dilution-calculator

*the density of water is 1g/mL

Sodium Chlorite 80%(NaClO2) starting stock salt flake.

Desired 250mL of NaClO2 28%

$$C1V1 = C2V2 \quad 80 * V1 = 28 * 250 = 7000$$

Solve the Volume of starting stock $(C2 * V2) / C1 = V1$

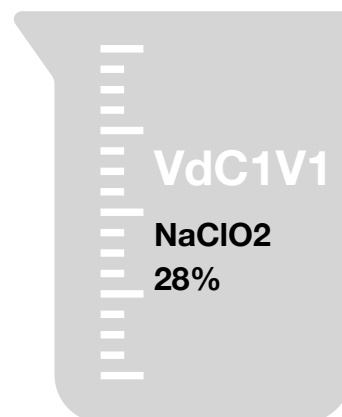
$$7000 / 80 = V1 \text{ _____ grams}$$

Dilution of Distilled Water $Vd = V2 - V1$

$$250 - V1 \text{ _____ grams} = Vd \text{ _____ mL}$$

Mix NaClO2 80% _____ grams and _____ mL distilled water to make 250mL of 28% NaClO2 solution.

*store in air tight container, glass or food grade plastic only.



Hydrochloric Acid 31.45%(HCL) starting stock.

Desired 250mL of HCL 8%

$$C1 \text{ _____} * V1 \text{ _____ mL} = C2 \text{ _____} * V2 \text{ _____ mL}$$

$$Vd = V2 - V1 \quad \text{_____ mL} = \text{_____ mL} - \text{_____ mL}$$

Mix HCL 31.45% _____ mL and _____ mL distilled water to make 250mL HCL 8% solution.

*store in air tight container, glass or food grade plastic only.

