How To Make Lugols Iodine 10%

by **AndrewKFletcher** on December 5, 2014

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Intro: How To Make Lugols Iodine 10%

How to make 10% Lugols Iodine Video Instructions along with making your own distiller from a pressure cooker and copper tube to produce distilled water for the formula.

Hope you find this instruction video useful.

Andrew

To prepare a 10%
LUGOL'S SOLUTION, the ratios of the elements change, since elemental iodine is not very soluble in water, thus, a slightly higher percentage of KI is needed.

1. Put 118 ml (4 fl. oz.) of distilled water in a dark glass container. 2. Mix 33.7 grams (1.18 oz.) of potassium iodide into the solution prepared in step one. Use a wooden or plastic spoon / spatula to stir until completely dissolved --do not use metal! Stir

Add 16.9 grams of iodine crystals to the mix, being very careful not to touch the iodine crystals--they can burn the skin. If you come into contact with the iodine crystals, wash your hands immediately with plenty of water. Stir with the wooden or plastic spoon, and cover with a non-metal cover. Let it sit for 10 hours

In the morning, stir once more or shake the solution. You now have a 10% Lugol's solution, which can be taken internally or externally. If you choose to take the solution internally, note that the concentration is approximately 25.5 mg/drop! (Assuming the drop size is such that 70 drops make up 1 teaspoon).

Note: The standard Lugols iodine concentrations don't include the potassium iodide in the percent calculation. The standard Lugol's solution of 5% means that there is 5% elemental iodine in the solution and the potassium iodide KI is not considered.

However, when you calculate the mg/drop of iodine, the iodide is taken into account. To do this, note that iodide is 0.769 times the total KI present, the ratio of atomic weights of iodine to potassium. Then, $[I + KI(0.769)]/ml$ = the concentration of iodine.

Proof that the 10% Lugols solution described above is truly 10%:

16.9 gr/(16.9 gr + 33.7 gr + 118 ml) = 0.10 or (10 %) A similar calculation can be performed for the strong iodine tincture.

Potassium iodide renders the elementary iodine soluble in water through the formation of the triiodide (I3?) ion.

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Comments

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AndrewKFletcher says:
Not from what I have read, perhaps another formula I haven't observed yet. Original Lugols Iodine was without acetic acid. Perhaps it was added for patent aplication?

Dec 6, 2014. 12:54 AM **REPLY**

Breygon says:
correct me if I'm wrong but isn't there acetic acid in the mix somewhere? I made some years ago and I seem to recall mixing the potassium iodide and iodine to acetic.

Dec 5, 2014. 4:50 PM **REPLY**