Residual Sugar Test Using CLINITEST Tablets

Dextrocheck: Residual Sugar Test Kits for wine are no longer produced.
Clinistest Kits used by diabetics use the same technology so that you can perform the same test. If you have the 0.5 ML sample and test tube from a Dextrocheck Kit, you will only need Clinistest Tablets and this sheet of directions. Refill tabs come with a new color sheet.

NOTE: Clinistest tablets contain copper sulfate and are toxic and highly corrosive. The reaction with the wine sample creates HEAT. KEEP OUT OF REACH OF CHILDREN AND ANIMALS; DO NOT CAP THE TEST TUBE WITH A FINGER EVER!

A. FOR WINES WITH LESS THAN 1% RESIDUAL SUGAR:

1) Place 0.5 ml of wine in the test tube. Hold the test tube over a piece of unlined white paper for better visibility.

2) Drop one reagent tablet in the test tube. Watch the reaction to make sure the color change does not pass through the orange color and turn slightly brownish. If this occurs you have more than 0.5% residual and will need to follow the secondary procedure, the 2-drop method in paragraph B below.

3) If the color does not reach and pass through the orange, wait until the boiling reaction stops, shake the tube and match the colors with the seven-color chart for the Two Drop Method shown on the chart, but the following:

The actual amount of sugar in the wine is not that which is shown on the Clinistest chart, but the following:

<table>
<thead>
<tr>
<th>Clinistest Color Chart</th>
<th>“10 drop method” less than 1% residual sugar (10 drops of wine in the test tube)</th>
<th>“2 drop method” 1 to 5% residual sugar (2 drops of wine + 8 drops of water in the test tube)</th>
<th>“1 drop method” more than 5% residual sugar (1 drop of wine + 9 drops of water in the test tube)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue (color on left side)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Dark Green (2nd color slab from left)</td>
<td>0.05%</td>
<td>0.25%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Medium Green (3rd color slab from left)</td>
<td>0.1%</td>
<td>0.5%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Light Green (4th color slab from left)</td>
<td>0.2%</td>
<td>1.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Dark Brown (5th color slab from left)</td>
<td>0.4%</td>
<td>2.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Light Orange (2nd color slab from right)</td>
<td>0.6%</td>
<td>3.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Orange (color slab at right side)</td>
<td>1.0%</td>
<td>5.0%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

4) If you get a color that appears to be between any two of the color slabs you can assume an intermediate value, but be certain that the wine never passed through to the orange color and then to a brown color. If this occurs or if you are unsure, try the 2-drop procedure in paragraph B below.

B. FOR WINES CONTAINING FROM 1 TO 5% RESIDUAL SUGAR

1) Place 2 drops (0.1ml) of wine into the sample tube and add 8 drops (0.4ml) of water.

2) Drop one reagent tablet into the tube and watch the reaction to be certain it does not go all the way to the orange color.

3) If the color change does not go to and pass through orange, wait until the boiling reaction is finished, then match the color to the color chart for the Two Drop Method on the Clinistest instructions and read the amounts as shown on the chart.

C. FOR WINES CONTAINING MORE THAN 5% RESIDUAL SUGAR: the 1-drop method:

1) Add 1 drop (0.05ml) of wine and 9 drops (0.45ml) of water to the test tube and proceed as above. If you pass through the orange color and go to a brown you have more than 10% residual sugar and cannot get a measurement with this test.

2) After the boiling of the chemical action stops, match the sample color to the 2 Drop Method color chart and double the readings on that chart to get the residual sugar level in the wine. Be aware that your accuracy is greatly reduced when using a single drop of wine for your test. The result would only indicate an approximate range.

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Clinitest tablets are TOXIC
Keep out of the reach of animals and children

Overview | Symptoms | Treatment

Poisonous Ingredient

- Copper sulfate
- Citric acid
- Sodium hydroxide
- Sodium carbonate

Note: This list may not be all-inclusive.

Home Treatment

Any ingestion or overdose of Clinitest tablets mandates immediate medical evaluation. **Dilute the poison by giving water immediately.**

**DO NOT INDUCE VOMITING** -- it will probably occur on its own.
Call Poison Control as soon as possible.

Before Calling Emergency

Determine the following information:

- The patient's age, weight, and condition
- The name of the product (ingredients and strengths, if known)
- The time it was swallowed
- The amount swallowed

Poison Control, or Local Emergency Number

Any ingestion or overdose of Clinitest tablets mandates immediate medical evaluation. See Poison Control centers for telephone numbers and addresses. **Take the container with you to the emergency room.**

What To Expect at the Emergency Room

Some or all of the following procedures may be performed:

For skin exposure

- Irrigation (washing of the skin), perhaps every few hours for several days
- Skin debridment (surgical removal of burned skin)
- Admission or transfer to a hospital that specializes in **burn** care
What To Expect at the Emergency Room

For swallowed poison

- Placement of a tube down the nose and into the stomach (a nasogastric tube, or an NG tube) to wash out the stomach
- Endoscopy -- the placement of a camera down the throat to see the extent of burns to the esophagus and the stomach
- Give IV fluids
- Admission to the hospital
- Give an antidote
- Treat the symptoms

For inhaled poisons

- A breathing tube may need to be inserted
- Oxygen
- Admission to the hospital or to the intensive care unit
- Bronchoscopy (inserting a camera down the throat and into the airway to evaluate the extent of burns to the airway and lungs)

Expectations (Prognosis):

The prognosis (probable outcome) depends on how rapidly the alkali was diluted and neutralized. Extensive damage to the mouth, throat, eyes, lungs, esophagus, nose, and stomach are possible. The ultimate outcome depends on the extent of this damage. Damage continues to occur to the esophagus and stomach for several weeks after the alkali was swallowed, and death may occur as long as a month later.

Also online at www.101winemaking.com

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