



Memorandum

The Gerber Test for Condensed Milk

The Gerber test for condensed milk is performed the same as for heavy cream, utilizing a standard 50% bottle (#1013-01). If the product is sweetened use dilute Gerber acid (#1083-00/#1083-04), if not sweetened use standard Geber acid (#1082-00/#1083-04).

The fat globules of a sweetened condensed milk, if homogenized after the fortification of their formulas with additional solids such as skim milk powder or butter oil, potentially make them more difficult to clear than those of unhomogenized milk or cream. Unless the bottles containing these fortified formulations are given thorough shaking **AFTER** the curd appears to have become fully solubilized, their tests will not show proper clear, light yellow, fat columns. If shaking is stopped when the curd, formed initially, first appears to have become solubilized, the materials absorbed on fat globules will not have been completely removed. Also, the lower portion of the fat which rises into the column, after centrifuging, will not be properly clear and straw-colored light yellow. It may be white, whitish or cloudy - all signs of inadequate shaking. By **ALWAYS** giving **ALL** bottles 45 to 60 seconds of vigorous shaking, after the curd is fully solubilized, you insure that **ALL** of **ANY** sample's fat will **ALWAYS** rise properly into the column.

The amount of shaking needed to solubilize the initially formed curd will vary slightly, among samples of the same type, or to a greater degree, when samples of different types are shaken in the same rack, by hand or by machine. If, when shaken, bottles of the same type of sample show much difference in the time taken to reach curd solubilization, the energy received by individual bottles may differ. This is of no particular importance, since the bottles cannot be "overshaken". What is important is that only after the last bottle has fully reached visible solubilization, is the time for the "extra shaking" to begin. From the practical aspect: if 45 seconds is the longest time taken to solubilize the initial curd, give the bottle 90 seconds of shaking.

You may want to consider a nutating platform mixer (#3067-02) for use with the Gerber test. This will allow a Gerber bottle to receive convenient mechanical shaking.