



# Service Bulletin

## SB# 4

# EQA<sup>TM</sup>

## Use and Maintenance

Proper use and maintenance of your EQA is critical to assure accurate and reliable results. Most "emulsion quality" complaints that we receive at APV Gaulin are directly related to the improper use of the EQA.

### **Proper Laboratory Technique**

It is essential that the instruction card supplied with the EQA is followed exactly, since any variation in sample dilution can significantly change the reading. The improper use of the micro-pipette, such as "pumping" the pipette or reusing the disposable tip, results in an increased sample size and will give erroneous results.

### **How to Use the Micro-Pipette**

Firmly attach the disposable tip to the micro-pipette. Depress the plunger completely. Immerse the tip into the sample about 1/8". Allow the plunger to return slowly to the release position. Lift the tip from the sample. Allow any excess milk to drain from the outside of the tip. Hold the micro-pipette over the water in the beaker and then depress the plunger slowly to the stop to empty the contents of the tip. Extract and discard the disposable tip.

The cuvettes supplied with the EQA are made of quartz and are matched to provide the same absorbance readings. However, if they become dirty, either from improper washing or fingerprints, the results can change drastically. Occasionally, small air bubbles will cling to the inside of the cuvette. They can usually be eliminated by gentle tapping with a finger. If not, the cuvette should be refilled. The cuvettes should be cleaned and dried promptly after each use. A small amount of caustic is present in the EQA diluent solution, which can etch the quartz cuvette over a period of time.

The use of disposable cuvettes is not recommended. Due to variations in their optical quality, results are generally not reproducible.

Daily records should be kept of all readings and corresponding product pressures. If a sudden change in the EQA reading occurs, rerun the sample and check for possible poor laboratory technique, before taking further action. If ice cream mix is to be tested on the EQA, consult the "Other Dairy Products" section in the EQA manual.

### **Maintenance of Your EQA**

Maintenance of your EQA is relatively simple. Dust and moisture must be kept away from the sample door. Push the test button to tell if all the L.E.D. segments work (it should read 1.888). The L.E.D. readout should not vary more than  $\pm .001$ . If the absorbance readout fluctuates wildly or if you get a 1.000 reading, contact the APV Gaulin Customer Service Laboratory with the serial number of the unit. Some earlier models used a light bulb as the light source. These units will be retrofitted with a solid-state light source at no charge.

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