Safety: Wear the appropriate lab PPE and follow area safety rules

Purpose: COLOR DETERMINATION LIQUID AND CRYSTAL PRODUCT

Procedure:

Introduction

While the Crystal Product appears to be pure white, and the Liquid Product appears to be water white, minute traces of mineral matter sometimes escape the filtering operation and impart very slight tinting which may present a problem for certain customers. Accordingly GCC checks the products regularly for so-called "color". The procedure for this determination follows.

Samples are diluted to specified solution strengths and the solution color compared with the "color" of de-ionized water using color comparator instrumentation

Equipment

Weighing Balance – B 440 Sartorius
Orbeco-Hellige Aqua Tester – Comparator. Orbeco Analytical Systems, Inc.
Farmingdale, NY.
Glass Beaker – 500 ml.
Magnetic Stirring Plate - Thermoline Cimarec 2
Magnetic Stirring Bars – 1" length
Supply of De-ionized water
Sheet of 8 ½" x 11" office letter paper

Methods

Liquid Product

1. Take liquid sample and fill comparator tube to the mark.
2.. Place the glass cap piece on the top of the tube
3. Place the tube in the left hand side of the comparator tube holder
4. Fill the other tube to the mark with de-ionized water.
5. Place the glass cap piece on the top of the tube
6. Place the tube in the right hand side of the comparator tube holder

7. Move the tube holder to the closed position
8. Rotate the disk in the comparator until the color in each tube appears to be the same.
9. Read and record the color index as indicated.

Crystalline Product

1. Tare the 500 ml beaker to zero on the weighing balance
2. Add 75 grams of Crystal Product to the beaker
3. Add 90 ml. of De-ionized water to the beaker
4. Place the stirring bar in the beaker and place the beaker on the magnetic stirring plate.
5. Allow stirring to continue until all of the crystals have disappeared.
6. Proceed as in items 1 through 9 in Liquid Product above.

TRAINING DOCUMENTATION

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Revision Number	Revision Date	Revision Author	Revision Description
00	03/26/2006	CM	New Document
01	06/29/2009	SL	-Placed Procedure on New Format -Remove steps 1-5 in original document and rewrote them on Liquid Product.