1.0 Purpose

This procedure explains how samples are diluted to specified solution strengths and the solution color compared with the "color" of de-ionized water using color comparator instrumentation.

2.0 Scope

This procedure applies to all finished crystalline and liquid samples. All testing is performed in the Quality Assurance Lab.

3.0 Responsibility

QA Lab personnel are responsible for performing this procedure.

4.0 Safety Considerations

Wear the appropriate lab PPE and follow area safety rules

Safety is a condition of employment. Employees are not authorized to work in an unsafe manner and are prohibited from harming the environment of the facility or community.

5.0 Materials/Equipment

- Weighing Balance –Accurate to 0.01g or better
- Orbeco-Hellige Aqua Tester – Comparator.
- Glass Beaker – 500 ml.
- Magnetic Stirring Plate
- Magnetic Stirring Bars – 1" length
- Supply of De-ionized water

6.0 Procedure

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 right 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 left 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 on *Final Product Liquid – Daily Quality Control Report (L12-FM-100-006).*

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 8 in Liquid Product above.

7. Read and record the color index as indicated on *Final Product Crystal – Daily Quality Control report (L12-FM-100-002)*

7.0 Reference Documents

Final Product Liquid – Daily Quality Control Report (L12-FM-100-006)
Final Product Crystal – Daily Quality Control report (L12-FM-100-002)

8.0 Amendment Record

Updated to new SOP template. Added reference to balance accuracy.