

**STANDARD TESTING PROCEDURE**  
**Residue After Evaporation DMSO**

1.0 Purpose

To measure the residue left after evaporating a known quantity of DMSO.

2.0 Safety/Health

2.1 PPE

Wear standard laboratory safety equipment consisting of safety glasses or goggles, gloves and clothing protection. Any spills that come in contact with the skin should be washed immediately with soap and water.

2.2 Safety Systems

N/A

2.3 Health Hazards

Refer to the Material Safety Data Sheets located in the Catalog of Chemicals.

3.0 Process Description

3.1 Process Overview

This analytical procedure will measure the residue left after evaporation.

3.2 Scope/Boundaries

N/A

3.3 Equipment Involved

100 mL graduated cylinder  
Aluminum evaporating dish - 125 mL  
Standard convection oven  
Top loading analytical balance

3.4 Reagents

DMSO product sample

#### 4.0 Procedure

NOTE: Record oven temperature in Lab Notebook.

- 4.1 Dry evaporating dish in oven at 105° ( $\pm$  5°) C and cool in a desiccator. Repeat until the weight is within 0.002 grams of the previous weighing.
- 4.2 Measure 91 mL (100 grams) of sample at room temperature into the evaporating dish. Place on hot plate under hood and evaporate to dryness.
- 4.3 Heat in oven at 105° ( $\pm$  5°) C for approximately one hour. Cool in desiccator and weigh the dish and contents to 0.002 grams.
- 4.4 Return the dish and contents to the oven for 15 to 30 minutes, cool, and re-weigh. Repeat if necessary until the weight is constant to within 0.0002 grams of the previous weighing.

#### 5.0 Documentation

Document in the Lab Notebook.

#### 6.0 Glossary

None associated with this procedure.

#### 7.0 Reference

None associated with this procedure.

#### 8.0 Test Specifications

Calculation

$$\% \text{ residue} = \frac{\text{final wt} - \text{initial wt}}{\text{sample wt (100) g}} \times 100$$

Report as DMSO % residue. Specification is <0.01%.