

**VOLATILES PRESENT IN SILICONE FLUID****Application**

This is a procedure for determining the volatiles content of silicone fluid by heating in a vacuum, reweighing the sample, to determine the percent of volatiles.

**Apparatus Required****Analytical Balance****Vacuum Oven**

Precision Freas Vacuum.  
Maximum rated temperature 225 °C.  
Catalog Number 52260-004 or equivalent.

**Dish Aluminum**

50 mL  
Catalog Number 2415-040 or equivalent.

**Desiccator**

250 mm diameter inside.  
Catalog Number 25010-063 or equivalent.

**Desiccator Plate**

Nucelite 230 mm nalgene  
Catalog Number 25038-063 or equivalent.

Source: V.W.R. Scientific  
P.O. Box 187  
Allen Park, MI 48101

**Conditioning and Test Conditions**

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

| Date       | Action  | Revisions                                  |
|------------|---------|--------------------------------------------|
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**Procedure**

1. Heat the aluminum dish to 200 °C to clean. After heat, place the dish in a desiccator until cooled.
2. Accurately weigh the aluminum dish on an analytical balance.
3. Weigh a 5 gram sample to the nearest 1 mg of silicone in the tared aluminum dish.
4. Place the dish containing the sample into a vacuum oven at 200 °C.
5. Reduce the pressure in the oven to 5 millimeters of mercury or less.
6. After 2 h, break the vacuum with air.
7. Remove the dish containing the sample from the oven.
8. Place dish in the desiccator.
9. Cool and reweigh the dish and sample.
10. Calculate the percent volatiles as follows:

$$\% \text{ Volatiles} = \frac{\text{Original Wt. of Silicone} - \text{Wt. of Silicone After Vacuum}}{\text{Original Wt. of Silicone}} \times 100$$

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.