

**Non-Volatile Factor Determination Calculation
for Pressurized Containers (Aerosol Cans)**

1. Remove all loose items (labels, caps, nozzles, etc.) and weigh entire can - **Gross Weight**
2. Freeze (overnight), place in metal beaker and puncture top of can with ice pick, 10 penny nail, or awl allowing can to "vent" and all come to room temperature. Open or remove top with can opener (mechanical or manual) being careful of sharp metal edges.
3. Re-weigh can containing remaining liquid - **Thaw Weight**
4. Transfer liquid to appropriate container and retain for later assay/analysis.
5. Wash, clean, dry, and weigh empty can (with any items from inside) - **Empty Weight**

Calculate **Non-Volatile Factor** as follows:

$$\text{(Thaw Net Weight)} / \text{(Gross Net Weight)} = \text{NVF}$$

Where: Gross Net Weight = Gross Wt. less Empty Wt.

Thaw Net Wt. = Thaw Wt. Less Empty Wt.

NVF = Non-Volatile Factor

Using NVF in Calculations for % Active Ingredients :

$$\% \text{ A I} = (R/R') \times (W'/W) \times P \times \text{NVF}$$

Where: % A I = percent active ingredient

R = peak height/area response of A I in sample

R' = peak height/area response of A I in standard

W' = concentration of A I in standard as mg/ml

W = concentration of sample as mg/ml

P = purity of standard

NVF = non-volatile factor