

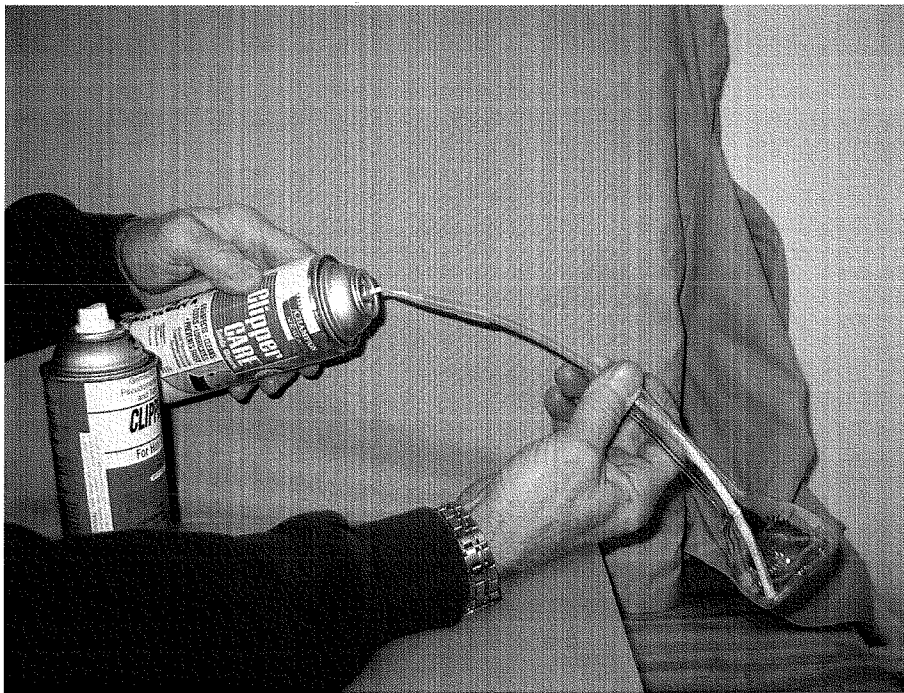
A Direct Weighing Technique for Sampling Pressurized Containers (Aerosol Cans)

1. Remove spray nozzle and with an ice pick or sharp pointed item, carefully remove the inner spray valve. Use pliers or clamp nozzle in a vise to prevent injury to oneself.
2. Fit a length of small diameter tubing (teflon, tygon, stainless steel) into the inner spray valve opening. **OR** (and this is probably the best way): *If, after removing nozzle, the can has a tube-like stem attached, use a piece of small diameter tubing that will fit snugly over the stem.* The tubing should be long enough to reach past the neck of the volumetric flask the sample will be dispensed into. About 6 - 8 inches for 50 or 100 ml flasks and 8 - 12 inches for 500 or 1000 ml flasks. A disposable pipette tip (Eppendorf, etc.) may be used as an adaptor/connector for the tubing. See attached photos.
3. Assemble everything, refitting nozzle on can with pipette tip (if used) with tubing attached. Accurately weigh the can with attachments.
4. Figure on what sample size is needed for the analysis. Roughly weigh and transfer that amount of plain water to a volumetric flask the size that will be used. Visually note how much liquid is in the flask. This is a visual reference as to how much sample needs to be dispensed to give the weight needed. If foaming is encountered, dispense/spray sample into a large beaker and rinse down with solvent to transfer to appropriate flask/contained (volumetric flask) for rest of analysis.
5. Insert the tubing into the volumetric flask to below the neck. Carefully spray the can until a sufficient amount of sample has been dispensed that is similar to that in Step 4.
6. Remove the tube and accurately re-weigh everything. Be careful to not drip any liquid from the tube before re-weighing as it will affect an accurate sample weight. The difference between the two weighings is the sample weight. Proceed with analyses. For additional sample weights, repeat Step 3 and Step 6.

Note: As an approximate check on the sample(s) weights, the empty volumetric flask may be accurately weighed before and after dispensing/spraying the sample into it. This procedure is not accurate due to the volatiles released from the can during spraying.



Pic 1: two aerosol cans. Note, can on left has the nozzle inside top. Small black object was inside spray button and removed with ice pick. The can on right has a nozzle tip in can.



Pic 2: using disposable pipette tips and tubing, direct sampling into volumetric flask. Weigh can before and after spray and rinse tip and tubing with solvent into volumetric flask.