

**AUTOMOTIVE FLUIDS, LUBRICANTS AND SOLVENTS**  
DOTD Designation: S 602-99

**General**

**A. Equipment**

1. Several 1 qt cans, 0.5 gal screw top cans or other suitable sample containers, suitable markers for identification, labels indicating flammable liquid.
2. Air or mechanical stirring device to stir or blend liquids in drums or other containers.
3. Other miscellaneous items such as tape or wire in order to secure samples by wrapping or tying.
4. MATT forms, envelopes and tape for securing to sample container.

**B. Safety Precautions**

It is the responsibility of the user of this sampling method to establish appropriate safety practices including, but not limited to, handling inflammable liquids, exposure to hazardous fumes and lifting heavy containers. Samples of flammable liquids, such as diesel fuel and gasoline, shall be placed into 0.5 gal screw top cans and labeled as flammable liquid.

**II. Tank Shipments**

- A. Obtain samples from the draw-off or the discharge valve after allowing a sufficient quantity to flow through to ensure obtaining a representative sample.
- B. Place the representative portion of the fluid into a 1 qt can. For flammable liquids, such as gasoline and diesel fuel, place the representative portion of the fluid into a 0.5 gal screw top metal can and label as flammable liquid.
- C. Place a properly completed, unsoiled sample identification form into an envelope and securely attach the envelope to the container.

**III. Liquid Materials**

**A. For Containers in Excess of 1 Gal**

1. Select one container at random from each shipment and thoroughly agitate.
2. Transfer a representative portion of the fluid from the selected container into a 1 qt can.
3. Place a properly completed, unsoiled sample identification form into an envelope and securely attach the envelope to the container.
4. When sampling the entire container, select one container at random from each shipment. Place a properly completed, unsoiled sample identification form into an envelope and securely attach the envelope to the container.

**B. For Containers of One Gal or Less**

1. Select one container at random from each shipment and type.
2. Place a properly completed, unsoiled sample identification form into an envelope and securely attach the envelope to the container.

**V. Semisolid Greases and Lubricants**

- A. Select one container at random from each shipment and type.
- B. Scrape 3 in. of the surface material to the edge of the container.
- C. Scoop out a sufficient amount of the material from the exposed surface with as little mixing as possible and transfer the materials to a 1 qt can.
- D. Place a properly completed, unsoiled sample identification form into an envelope and securely attach the envelope to the container.
- E. When sampling the entire container of 5 gal or less, select one container at random from each shipment. Place a properly completed, unsoiled sample identification form into an envelope and securely attach the envelope to the container.

*Note 1: Properly seal the sample to avoid contamination and then ship or transport the sample to the lab.*

*Note 2: Mark containers from which samples are taken so that they may be easily identified, should check sampling become necessary. Also make certain the identification marked on the container also appears on the sample identification form.*