

Alcohol Content in Gasoline

Meets ASE Task: (A8-D-2) P-2 Check fuel for contaminants and quality; determine necessary action.

Name _____ Date _____ Time on Task _____

Make/Model/Year _____ VIN _____ Evaluation: 4 3 2 1

Take the following steps when testing gasoline for alcohol content.

- _____ 1. Pour suspect gasoline into a small clean beaker or glass container.
DO NOT SMOKE OR RUN THE TEST AROUND SOURCES OF IGNITION!
- _____ 2. Carefully fill the graduated cylinder to the 10-mL mark.
- _____ 3. Add 2 mL of water to the graduated cylinder by counting the number of drops from an eyedropper. (Before performing the test, the eyedropper must be calibrated to determine how many drops equal 2.0 mL.)
- _____ 4. Put the stopper in the cylinder and shake vigorously for 1 minute. Relieve built-up pressure by occasionally removing the stopper. Alcohol dissolves in water and will drop to the bottom of the cylinder.
- _____ 5. Place the cylinder on a flat surface and let it stand for 2 minutes.
- _____ 6. Take a reading near the bottom of the cylinder at the boundary between the two liquids.
- _____ 7. For percent of alcohol in gasoline, subtract 2 from the reading and multiply by 10.

For example, The reading is 3.1 mL: $3.1 - 2 = 1.1 \times 10 = 11\%$ alcohol

The reading is 2.0 mL: $2 - 2 = 0 \times 10 = 0\%$ alcohol (no alcohol)

If the increase in volume is 0.2% or less, it may be assumed that the test gasoline contains no alcohol. Alcohol content can also be checked using an electronic tester.

- _____ 8. Based on the test results, what action is necessary? _____

