



Glycol Detection Test Kit

Model EG-1
Cat.No. 21864-00

INTRODUCTION

This test is designed to detect the presence of ethylene glycol in either water or oil. It can be used for detecting leakage into engine lubricants or from other glycol based cooling systems. Ethylene glycol will react with the reagents in this test to give a purple color. Other 1,2 glycols, such as propylene glycol, will also react.

Other glycol compounds and glycol additives found in some unused motor oils may give positive test results. After a short period of use, such oils will no longer show the presence of these additives. For testing motor oil samples, sample the oil after the engine has run a few minutes. Don't sample a hot engine.

So that you will recognize the positive result from a glycol contaminated sample, a standard solution is included in the kit. To use it, add 13 drops of this solution to a Reagent 3 Vial and follow the instructions below with a portion of your normal sample. The purple color will then be evident.

TEST INSTRUCTIONS

1. Unscrew the cap of a Reagent 3 Vial. Fill one of the disposable syringes provided in the kit to the 0.5 mL mark (about 1/2 way up the tube) with the sample. Then squeeze the sample into the vial.
2. Add the contents of one Reagent 1 Powder Pillow (white) to the vial. Securely recap the vial and mix the contents well until the powder is dissolved. Place the vial in a container of hot tap water. Allow to stand for 4-6 minutes. If warming is not possible, allow to stand 15-25 minutes at room temperatures.
3. Remove the vial from the water, wipe dry and uncap. Add the contents of one Reagent 2 Powder Pillow (purple) to the vial. Again securely recap the vial and mix well to dissolve the powder. Place the vial in hot tap water and allow to stand for 20 minutes. Again, if warming is not possible, allow to stand for 80

minutes at room temperature.

4. Remove the vial and observe the solution color. The presence of the Ethylene Glycol and an estimate of Glycol Concentration is indicated by the following colors

Color	mg/L Ethylene Glycol
yellow brown	0-30
gray-green	30-100
gray-purple	100-150
intense purple	Greater than 150

The purple color may fade after several hours. A smaller sample may be used in Step 1 to determine higher levels of Glycol. For example if 0.1 mL is used in Step 1, the values above should be multiplied by 5.

5. The empty Reagent 1 and 2 pillows may be disposed of as ordinary refuse. The used Reagent 3 Vial should be disposed of by carefully pouring its contents down the sink with additional water. Rinse the Reagent 3 cap and Vial with water and dispose of as ordinary refuse.

REPLACEMENTS

Cat. No.	Description	Unit
968-00	Clippers	each
21247-25	Dropper, 0.5 & 1.0-mL mark	pk/25
21836-68	Glycol Test Reagent 1 Powder Pillows	pk/25
21837-68	Glycol Test Reagent 2 Powder Pillows	pk/25
21838-25	Glycol Test Reagent 3 Vials	pk/25
21839-36	Ethylene Glycol, 0.05%	15mL SCDB

WARNING: The chemicals in this kit may be hazardous to the health and safety of the user if inappropriately handled. Please read all warnings before performing the test, and use appropriate safety equipment.

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