

Geometrics Knowledgebase

What fluid can I use in my Geometrics proton precession magnetometer?

List of approved fluids is as follows:

1. n-Decane
2. Shell Sol-71 (Shell oil product)
3. Isopar-G (Exxon oil Co.)
4. Odorless mineral sprits (Naptha)
5. Mineral Spirits (Naptha)
6. Charcoal Lighter Fluid
7. Kerosene lamp oil
8. Kerosene
9. Mineral Oil (medicinal Grade)
10. Diesel Fuel (may degrade diaphragm on marine systems)
11. Camp Stove fuel
12. White Gas
13. unleaded gas.

The preferred fluids are items 1-7 above.

Items 3 & 4 are not the same as paint thinner. Paint thinner will damage the sensor coils, as will Acetone, and should not be used.

Items 11 - 13 have a very low flash point and should be used with extra caution, although any petroleum product must be handled carefully.

There are several Alcohols which will produce an acceptable signal, but will tend to absorb water. This will degrade the performance of the sensor over time. These should be replaced as soon as possible with an alternate fluid from the above list.

Usable alcohols:

1. Ethanol (Grain Alcohol) at least 190 proof
2. Methanol (wood alcohol)
3. Denatured Alcohol (ethanol made poisonous)

All of these fluids must be as clean as possible to ensure that no water or contaminants (rust) are in them. Use a filter to make sure the fluids do not contain rust from the storage container.

<http://support.geometrics.com/kb/questions.php?questionid=17>