## OIL-S　Oil in Soil

Color development: Transparent → White Turbidity
Method　　　 : Turbidimetry with PNIPAAm Extraction after Ethanol Elution
Range　　　　: Fuel oil A　400 — 5000 mg/kg (resolution : 100 mg/kg)
Reagent　　　: SOA-OIL-RR　R-1 (Dissolved in Ethanol) , R-2 (Liquid) , R-3 (Liquid)
Reaction time : 0 min.
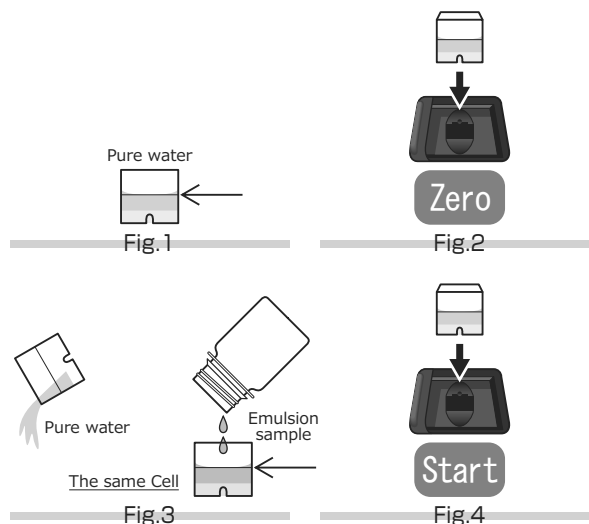Additional tool : Soil Screening Reagent Set: Oil (Model: SOA-OIL-NM)
Usage　　　　: Read the instruction supplied with "Soil Screening Reagent Set: Oil".

Cell : PACKTEST Square Cup
Wavelength : 660 nm

## Procedure

1. Press 【OIL-S】.

2. Press 【OK】 to switch to the photometry window.

3. Fill the Cell with pure water (or tap water) for 1.5 mL (up to line). (Fig.1)

4. Put the Cell in the cell box and press 【Zero】. (Fig.2)

5. Take out the Cell, discard the pure water, and fill the same Cell with 1.5 mL of the solution prepared using "Soil Screening Set: Oil". (Fig.3)

6. Set the Cell in the cell box again and press 【Start】. (Fig.4)

7. The concentration will be automatically displayed.

Pure water

Fig.1　　Fig.2

Pure water　Emulsion sample
The same Cell

Fig.3　　Fig.4

## CAUTION

1. In this method, the turbidity of the sample (solution) obtained by "Soil Screening Reagent Set: Oil" is measured and converted into a fuel oil A value. For notes on the operation, refer to the usage supplied with the "Soil Screening Reagent Set: Oil".
2. The displayed value is a fuel oil A value and the calibration curve differs depending on the oil type. If contamination by other oil than fuel oil A is anticipated, it is possible to make correction by multiplying the displayed value by any of the coefficients below.
   Engine oil. . . . . .　　displayed value × 0.9
   Fuel oil A . . . . . .　　displayed value × 1.0
   Light oil . . . . . .　　displayed value × 1.0
   Kerosene . . . . . .　　displayed value × 1.5
   Gasoline . . . . . .　　unable to detect
3. The displayed value corresponds to the oil content (mg) per 1 kg of shape-retained soil containing water content.
   To convert to a value per dry weight, separately measure the moisture content and perform correction accordingly.

## Information on reagent

Refer to the instruction supplied with "Soil Screening Reagent Set: Oil".
The pH of the solution is about 7.