



MARICHEM W.I.O. TEST KIT™

DESCRIPTION

One of the most important items with respect to onboard testing is the water content in lube and fuel oils. The **MARICHEM W.I.O. TEST KIT** enables marine engineers to test engine oils, gear oils, hydraulic oils, etc, whilst also checking on water leakages, lube oil separation and operational contamination in a quick and thorough way.

MARICHEM Water In Oil test conforms the reproducibility limits of ISO 3733/ASTM D 95

The test method is simple and gives accurate results, based on the reaction of water with certain reagents, which finally determine the quantity of water in oil.

TEST KIT CONTENTS

The **MARICHEM W.I.O. TEST KIT** consists of the following parts:

A. Accessories

- ◆ Sturdy case.
- ◆ Reaction vessel.
- ◆ Manometer and injection valve for the Reaction vessel.
- ◆ 1ml, 5ml & 10ml graduated plastic syringes with a tip.
- ◆ Magnetic stirrer and magnet (optional).

B. Reagents

- ◆ Water In Oil test solution (50ml)
Order Number: 720112
- ◆ Water-free diluent (1000ml)
Order Number: 720111

PACKAGING

Order Number : 720101

Container : Sturdy Case

TESTING PROCEDURE

1. Shake the sample to be tested thoroughly in order to obtain a homogeneous mixture. Immediately add 5ml of the oil sample into the reaction vessel using a clean 5ml syringe.
2. Add 5ml of the water-free diluent using a clean 5ml syringe. Also add the magnet if a magnetic stirrer is to be used.



3. Close the reaction vessel, swirl carefully and open the injection valve by turning the base ring counter-clockwise to position "O".
4. Shake the water in oil test solution bottle thoroughly until a homogeneous mixture is obtained. Take 0.75ml of the water in oil test solution using an 1ml clean syringe and inject into the test vessel.
5. Close the valve by turning the base ring clockwise to position "S" before removing the syringe.
6. Shake the test vessel in regular intervals and read off the value on the manometer after 10–12 minutes time.
7. In case a magnetic stirrer and a magnet are used, place the reaction vessel on the magnetic stirrer and switch the stirrer on. Let it stir for approximately 10–12 minutes and record the manometer reading.

TEST RESULTS EVALUATION

After the manometer value, from steps 6 and/or 7, is recorded, calculate the water content as follows:

$$\text{Water \% Vol.} = \frac{[\text{Meter Reading (\% Vol)} \times 5]}{\text{Sample Volume Taken (ml)}}$$

- **NOTE:** If the water content of the sample is above 1.24% volume, open the cover, reduce the sample and repeat the test with a smaller amount of oil.



 **Read the Material Safety Data Sheet before using this product.**

For detailed information on safety and health, please refer to Material Safety Data Sheet and/or Product Label.

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