

**DETERMINATION OF RECOVERED UNSAPONIFIABLES AND
NONSAPONIFIABLES IN SOLUBLE OILS AND DRAW COMPOUNDS**

Application

This test method is used to determine the percent unsaponifiables and nonsaponifiables in soluble oils and draw compounds.

Apparatus Required

Steam Bath

Oven

Capable of being maintained at 105 +/- 3 °C.

Separatory Funnels

500 mL, with Pyrex ground glass stoppers.

Hot Plate

Electric

Extraction Apparatus

Analytical Balance

Precision +/- 0.1 mg

Beaker

250 mL

Graduated Cylinder

200 mL

Materials Required

Isopropyl Alcohol

Reagent grade; CAUTION: Low flash point

Date	Action	Revisions
2001 01 16	Revised	Editorial – no technical change A. Cockman
2000 03 21		Editorial no technical change A. Cockman
1992 06 03		

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Petroleum Ether

Reagent grade, BP 30-60 °C; CAUTION: Low flash point.

Hydrochloric Acid

Concentrated, reagent grade; CAUTION: Corrosive.

Potassium Hydroxide

Reagent grade; CAUTION: Corrosive.

Ethyl Ether

Reagent grade; CAUTION: Low flash point.

Sodium Sulfate

Reagent grade, anhydrous, crystalline

Cotton

Distilled or Deionized Water

10 ppm max total dissolved solids (ASTM D 1888).

Solutions Required

Isopropyl Alcohol

50/50 v/v/ with distilled water.

Sodium Sulfate Solution

20 % aqueous solution.

Methyl Orange Indicator

Dissolve 0.1 g of methyl orange reagent in 100 mL of distilled water.

Alcoholic Potassium Hydroxide

1.0 N

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.