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Diisopropyl Ether

(*Isopropyl Ether*), $[(\text{CH}_3)_2\text{CH}]_2\text{O}$ 102.17 CAS RN[®]: 108-20-3.—Colorless, mobile liquid. Slightly soluble in water. Miscible with alcohol and with ether.

[CAUTION—It is highly flammable. Do not use where it may be ignited. Do not evaporate to the point of near dryness, since it tends to form explosive peroxides.]

Specific Gravity: between 0.716 and 0.720.

DISTILLING RANGE, Method II (721): Not less than 95% distills between 65° and 70°.

Peroxides: To 10 mL, contained in a clean, glass-stoppered cylinder previously rinsed with a portion of the ether under examination, add 1 mL of freshly prepared potassium iodide solution (1 in 10). Shake, and allow to stand for 1 minute: no yellow color is observed in either layer (about 0.001% as H_2O_2).

Residue on Evaporation:

[NOTE—If peroxide is present, do not carry out this procedure.]

Evaporate 14 mL (10 g) from a tared shallow dish, and dry at 105° for 1 hour: the residue weighs not more than 1 mg (0.01%).

Acidity: Add 2 drops of bromothymol blue TS to 10 mL of water in a glass-stoppered, 50-mL flask, and titrate with 0.010 N sodium hydroxide until a blue color persists after vigorous shaking. Add 5 mL of diisopropyl ether, and titrate with 0.010 N sodium hydroxide: not more than 0.30 mL is required to restore the blue color (0.005% as CH_3COOH).

[NOTE—For spectrophotometric determinations, use diisopropyl ether that meets the following additional requirement:]

Absorbance: Its absorbance at 255 nm, in a 10-mm quartz cell, does not exceed 0.2, water being used as the blank.

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
DIISOPROPYL ETHER	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

Most Recently Appeared In:

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