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Tributyrin

(Glyceryl Tributyrate), $C_{15}H_{26}O_6$ 302.36 CAS RN[®]: 60-01-5.—Colorless, oily liquid. Insoluble in water; very soluble in alcohol and in ether.

Assay: Inject an appropriate specimen into a suitable gas chromatograph (see [Chromatography \(621\)](#)) equipped with a flame-ionization detector, nitrogen being used as the carrier gas. The following conditions have been found suitable: a 3-mm × 1.8-m stainless steel column containing phase G4 on support S1A; the injection port temperature is maintained at 270°; and the detector temperature is maintained at 300°. The area of the tributyrin peak is not less than 98% of the total peak area.

REFRACTIVE INDEX (831): between 1.4345 and 1.4365 at 20°.

Acid Content: Transfer 1.0 g, accurately weighed, to a beaker, add 75 mL of methanol, and dissolve by stirring. When dissolution is complete, add 25 mL of water, and titrate with 0.05 N potassium hydroxide VS, using phenolphthalein TS as the indicator. Perform a blank determination, and make any necessary correction. Each mL of 0.05 N potassium hydroxide is equivalent to 88.1 mg of butyric acid: not more than 0.5% is found.

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

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

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