



Designation: D 1466 – 86 (Reapproved 1995)^{ε1}

Standard Test Method for Sampling Liquid Oils and Fatty Acids Commonly Used in Paints, Varnishes, and Related Materials¹

This standard is issued under the fixed designation D 1466; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

ε¹ NOTE—Unit of measurement statement and Keywords were added editorially in May 1995.

1. Scope

1.1 This test method covers procedures for obtaining representative samples of oils, fatty acids, and polymerized fatty acids that are commonly used in paints, varnishes, and related materials, and that are in a liquid state when sampled.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Summary of Test Method

2.1 Samples of drying oils, fatty acids, and polymerized fatty acids are subjected to various test methods for determining physical and chemical characteristics. It is necessary to obtain a sample or a composite of several samples in such manner and from such locations in the container, that the sample or composite will be truly representative of the product. The precautions required to assure such a representative sample are numerous, depending on the type of product, the container, the cleanliness of the sample container, and the sampling procedure that is to be used.

3. Significance and Use

3.1 Because precipitated saturated acids or oils containing a high proportion of saturated acids, foots, or other insoluble matter may not be homogeneous, the sampling procedure must be designed so that the sample obtained is representative of the overall composition of the material. Different sampling procedures are presented such that a representative sample may be obtained from material stored in different types of containers.

4. Apparatus

4.1 Oil Thief:

4.1.1 *Liquid Oils and Fatty Acids*—A glass tube, 9.5 to 12.7 mm ($\frac{3}{8}$ to $\frac{1}{2}$ in.) in internal diameter and approximately 1 m (40 in.) in length. One end shall be constricted by a short taper to approximately 6 mm ($\frac{1}{4}$ in.), and the other end shall be constricted sufficiently so that it can be used as a finger valve. This thief is used for sampling casks, drums, etc.

4.1.2 *Polymerized Fatty Acids*—A glass tube, 20 to 25 mm ($\frac{3}{4}$ to 1 in.) in internal diameter, and approximately 1 m (40 in.) in length. One end shall be constricted so it can be used as a finger valve. This thief shall be used for sampling casks, drums, etc.

4.2 *Zone Sampler*, 305-mm (12-in.) oil thief,² consisting of a graduated glass tube with either aluminum or cadmium-plated brass fittings.

4.3 *Compositing Pail*, noncorrosive compositing pail, made of stainless steel, aluminum, enamelware, polyethylene, or comparable material.

4.4 Graduated Cylinders:

4.5 *Sample Containers*, clear glass or brown glass bottles, or cans (for other than fatty acids and polymerized fatty acids). The clear glass bottles are advantageous because they may be examined visually for cleanliness, sediment, etc. The brown glass bottles afford some protection from light. Only cans that do not have any solder flux on the interior are permissible for storing oils. Cans shall not be used for fatty acids or polymerized fatty acids.

4.5.1 The closure for the glass bottles may be good quality corks, with or without tin or aluminum foil. Screw caps may be used for both bottles and cans.

4.5.2 All sample containers shall be clean and free of water, lint, dirt, washing compounds, solvents, flux or acids, rust, oil, etc.

¹ This test method is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of D01.32 on Drying Oils.

Current edition approved March 27, 1986. Published May 1986. Originally published as D 1466 – 57. Last previous edition D 1466 – 67 (1984)^{ε1}.

² Samples manufactured by the W. H. Curtin Co., Houston, TX, has been found suitable for this purpose.