



Standard Terminology Relating to Petroleum, Petroleum Products, and Lubricants¹

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This standard has been approved for use by agencies of the Department of Defense.

^{ε1} NOTE—Terms were added editorially in October 2003.

1. Scope

1.1 This standard is the compilation of terminology developed by Committee D02 on Petroleum Products and Lubricants, except that it does not include terms/definitions specific only to the standards in which they appear.

1.1.1 The terminology, mostly definitions, is unique to petroleum, petroleum products, and lubricants. Meanings of the same terms outside of applications to petroleum, petroleum products, and lubricants can be found in other compilations and in dictionaries of general usage.

1.1.2 The terms/definitions exist in two places (1) in the standards in which they appear and (2) in this compilation.

2. Terminology

2.1 Alphabetical listing of terms with definitions for each term showing attributions as to source and subcommittee jurisdiction is in bold print following the definition. Those showing no attributes are under the jurisdiction of Subcommittee CS 95. Some abbreviations, acronyms and symbols are included in the list.

abrasion, n —wear by displacement of material caused by hard particles or hard protuberances. **D 4998**

abrasive wear—wear due to hard particles or hard protuberances forced against and moving along a solid surface. **D 5182**

absolute filtration rating, n —the diameter of the largest hard spherical particle that will pass through a filter under specified test conditions. This is an indication of the largest opening in the filter element. **D 4174**

absorbance, A , n —the molecular property of a substance that determines its ability to take up radiant power, expressed by:

$$A = \log_{10} (1/T) = -\log_{10} T$$

where T is the transmittance as defined in 3.1.3.

DISCUSSION—Absorbance expresses the excess absorption over that

of a specified reference or standard. It is implied that compensation has been affected for reflectance losses, solvent absorption losses, and refractive effects, if present, and that attenuation by scattering is small compared with attenuation by absorption. **D 2008**

absorptivity, a , n —the specific property of a substance to absorb radiant power per unit sample concentration and path length, expressed by:

$$a = Af/bc$$

where:

A = the absorbance defined in 3.1.4,

f = the dilution factor defined in 3.1.5,

b = sample cell path length, and

c = the quantity of absorbing substance contained in a volume of solvent. **D 2008**

acceptance limit (AL), n —a numerical value that defines the point between acceptable and unacceptable quality.

DISCUSSION—The AL is not necessarily the specification limit. It is the value that takes into account the specification value, the test method precision, and the confidence level desired for defining minimum acceptable quality relative to the specification value. **D 3244**

accepted reference value, n —a value that serves as an agreed-upon reference for comparison and that is derived as (1) a theoretical or established value, based on scientific principles, (2) an assigned value, based on experimental work of some national or international organization, such as the U.S. National Institute of Standards and Technology (NIST), or (3) a consensus value, based on collaborative experimental work under the auspices of a scientific or engineering group. **D 6299, [E11] E 456, E 177**

accuracy, n —the closeness of agreement between a test result and an accepted reference value. **D 6792**

acid number, n —the quantity of base, expressed as milligrams of potassium hydroxide per gram of sample, required to titrate a sample to a specified end point.

DISCUSSION—This test method expresses the quantity of base as milligrams of potassium hydroxide per gram of sample, that is required to titrate a sample in the solvent from its initial meter reading in millivolts to a meter reading in millivolts corresponding to a freshly prepared non-aqueous basic buffer solution or a well-defined inflection

¹ This terminology is under the jurisdiction of Committee D02 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.95 on Terminology.

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