



Designation: D 4310 – 9803

An American National Standard

Standard Test Method for Determination of the Sludging and Corrosion Tendencies of Inhibited Mineral Oils¹

This standard is issued under the fixed designation D 4310; 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.

1. Scope

1.1 This test method is used to evaluate the tendency of inhibited mineral oil based steam turbine lubricants and mineral oil based anti-wear hydraulic oils to corrode copper catalyst metal and to form sludge during oxidation in the presence of oxygen, water, and copper and iron metals at an elevated temperature. The test method is also used for testing circulating oils having a specific gravity less than that of water and containing rust and oxidation inhibitors.

NOTE 1—During round robin testing copper and iron in the oil, water and sludge phases were measured. However, the values for the total iron were

¹ This test method is under the jurisdiction of ASTM Committee D-2 D02 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.09 on Oxidation.

Current edition approved June 10, 1998; 2003. Published October 1998; June 2003. Originally published as D 4310—83; approved in 1983. Last previous edition approved in 1998 as D 4310—958.