



Designation: E 411 – 9200

Standard Test Method for Trace Quantities of Carbonyl Compounds with 2,4-Dinitrophenylhydrazine¹

This standard is issued under the fixed designation E 411; 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 covers the determination of total carbonyl in the range from 0.5 to 50 µg calculated as CO.
- 1.2 This test method is intended to be general and does not include steps for sample preparation.
- 1.3 Acetals that hydrolyze under the conditions of the test are also determined.
- 1.4 Carbonyl derivatives such as acetals and imines that are easily hydrolyzed may be determined by an alternative procedure.
- 1.5 The developed color is not stable and must be measured within a specified period.

NOTE 1—Other test methods for the determination of traces of carbonyl compounds are given in Test Methods D 1089, D 1612, D 2119, and D 2191.

1.6 Review the current appropriate Material Safety Data Sheets (MSDS) for detailed information concerning toxicity, first aid procedures, and safety precautions.

1.7 The values stated in SI units are to be regarded as the standard.

1.78 *This standard does not purport to address all of the safety ~~problems~~, concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Specific ~~precautionary hazards~~ statements are given in Note 4 and Section 8.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 1089 Test Method for Carbonyl Content of Butadiene²

¹ This test method is under the jurisdiction of ASTM Committee E15 on Industrial and Specialty Chemicals and is the direct responsibility of Subcommittee E15.22 E15.01 on Functional Groups—General Standards.

Current edition approved May 15, 1992; Oct. 10, 2000. Published July 1992; December 2000. Originally published as E 411 – 70. Last previous edition E 411 – 942.