



Designation: D 2378 – 84 (Reapproved 1999)

AMERICAN SOCIETY FOR TESTING AND MATERIALS
100 Barr Harbor Dr., West Conshohocken, PA 19428
Reprinted from the Annual Book of ASTM Standards. Copyright ASTM

Standard Specification for Formaldehyde 50 % Grade Uninhibited and 37 % Grade Inhibited and Uninhibited¹

This standard is issued under the fixed designation D 2378; 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 specification covers 50 % uninhibited formaldehyde and 37 % uninhibited and inhibited formaldehyde.

1.2 For specific hazard information and guidance, see the supplier's Material Safety Data Sheet for materials listed in this specification.

2. Referenced Documents

2.1 ASTM Standards:

D 891 Test Methods for Specific Gravity, Apparent, of Liquid Industrial Chemicals²

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)³

D 2087 Test Method for Iron in Formaldehyde Solutions³

D 2194 Test Method for Concentration of Formaldehyde Solutions³

D 2379 Test Method for Acidity of Formaldehyde Solutions³

D 2380 Test Method for Methanol Content of Formaldehyde Solutions³

E 300 Practice for Sampling Industrial Chemicals²

2.2 U.S. Federal Standard:

PPP-C-2020 Federal Specification For Packaging of Chemicals, Liquid, Dry, and Paste⁴

3. Properties

3.1 The physical and chemical properties of formaldehyde,

50 % uninhibited and 37 % uninhibited and inhibited, shall conform to the requirements specified in Table 1.

4. Sampling

4.1 The material shall be sampled in accordance with Practice E 300.

5. Hazards

5.1 Formaldehyde and formaldehyde solutions are toxic and exposure to them should be minimized to avoid acute effects and possible sensitizing. Consult the supplier's Material Safety Data Sheet for specific hazard information.

6. Test Methods

6.1 The properties enumerated in this specification shall be determined in accordance with the following ASTM test methods:

6.1.1 *Apparent Specific Gravity*—Test Method D 891.

6.1.2 *Formaldehyde Content*—Test Method D 2194.

6.1.3 *Acidity*—Test Method D 2379.

6.1.4 *Color*—Test Method D 1209.

6.1.5 *Iron*—Test Method D 2087.

6.1.6 *Methanol Content*—Test Method D 2380.

7. Packaging and Package Marking

7.1 Package size to be agreed upon between the purchaser and supplier.

7.2 Packaging shall conform to applicable carrier rules and regulations or when specified shall conform to Fed. Spec. PPP-C-2020.

8. Keywords

8.1 acidity; color; formaldehyde; methanol

¹ This specification is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials and Applications and is the direct responsibility of Subcommittee D01.35 on Solvents, Plasticizers, and Chemical Intermediates.

Current edition approved April 27, 1984. Published September 1984. Originally published as D 2378 – 65 T. Last previous edition D 2378 – 79.

² *Annual Book of ASTM Standards*, Vol 15.05.

³ *Annual Book of ASTM Standards*, Vol 06.04.

⁴ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.