

DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS
Washington

STANDARD SAMPLE NO. 48a

BENZOIC ACID

Directions for use as an ACIDIMETRIC STANDARD

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RECORD FILE

In using this sample of benzoic acid as an ⁹¹acidimetric standard the following precautions should be carefully observed:

1. The acid should be carefully fused before use in a glass or platinum vessel placed in an air-bath. The temperature during fusion must not rise above 140°C; it is best to keep it below 130° and to cease heating as soon as fusion is complete. (Fusion is unnecessary unless a high degree of accuracy is desired. Titrations carefully made check to 1 - 3 parts in 10,000 and consistent differences as great as 5 - 7 parts in 10,000 have been observed between fused and unfused materials which have stood in the laboratory for 1 - 3 years.)
2. The acid should be dissolved in alcohol (about 30 cc for a 1-gram sample and a blank test made upon the same volume of alcohol so that the necessary correction may be applied in the subsequent titration.
3. The titration must be made in the cold with carbonate-free alkali and the necessary precautions taken to prevent the access of carbon dioxide from the air during titration. Phenolphthalein is the most satisfactory indicator.

For full directions regarding the use of benzoic acid, see articles by George W. Mcree, Jour. Amer. Chem. Soc. 34, P. 1037; 1912, and R. R. Weaver, Ibid. 35, P. 1308; 1913.

S. W. STRATTON,
Director.

Washington, D. C.
January 6, 1921.

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