



American National Standard/
American Dental Association
Standard No. 171

Analysis of Fluoride Concentration in Aqueous Solutions by Use of Fluoride Ion-Selective Electrode

Identical adoption of ISO 19448:2018, *Dentistry — Analysis of fluoride concentration in aqueous solutions by use of fluoride ion-selective electrode.*

ADA American
Dental
Association®

Standards Committee on Dental Products

2019

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**AMERICAN NATIONAL STANDARD/AMERICAN DENTAL ASSOCIATION
STANDARD NO. 171 FOR ANALYSIS OF FLUORIDE CONCENTRATION IN
AQUEOUS SOLUTIONS BY USE OF FLUORIDE ION-SELECTIVE ELECTRODE**

The ADA Standards Committee on Dental Products (SCDP) has approved ANSI/ADA Standard No. 171 for Analysis of Fluoride Concentration in Aqueous Solutions by Use of Fluoride Ion-Selective Electrode. This and other standards for dental materials, instruments and equipment are being formulated by working groups of the ADA SCDP. The Committee has representation from all interests in the United States in the standardization of materials, instruments and equipment in dentistry. The Committee has adopted the standards, showing professional recognition of their usefulness in dentistry, and has forwarded them to the American National Standards Institute with a recommendation that the standards be approved as American National Standards. The American National Standards Institute granted approval of ADA Standard No. 171 as an American National Standard on August 26, 2019.

The ADA Standards Committee on Dental Products thanks the members of Working Group 7.73 on Analytical Methods for Oral Care Products and the organizations with which they were affiliated at the time the standard was developed:

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**AMERICAN NATIONAL STANDARD/AMERICAN DENTAL ASSOCIATION STANDARD NO. 171
FOR ANALYSIS OF FLUORIDE CONCENTRATION IN AQUEOUS SOLUTIONS BY USE OF
FLUORIDE ION-SELECTIVE ELECTRODE**

FOREWORD

(This Foreword does not form a part of ANSI/ADA Standard No. 171 for Analysis of Fluoride Concentration in Aqueous Solutions by Use of Fluoride Ion-Selective Electrode).

This standard is an identical adoption of ISO 19448:2018, Dentistry — Analysis of fluoride concentration in aqueous solutions by use of fluoride ion-selective electrode. ADA SCDP Working Group 7.73 on Analytical Methods for Oral Care Products examined the international standard and found it acceptable for identical adoption as ANSI/ADA Standard No. 171.

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171 FOR ANALYSIS OF FLUORIDE CONCENTRATION IN AQUEOUS SOLUTIONS BY USE OF
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Introduction

Fluoride is used in dentistry primarily for caries prevention. Fluoride is the active ingredient for caries prevention in many dental products such as dentifrices, gels, oral rinses, and fluoride releasing varnishes. The fluoride concentration in these products is an integral part of other standards where the product is intended to be analysed for fluoride content. This document provides methods based on the use of fluoride ion-selective electrode technology for the analysis of the total fluoride content in aqueous samples. The methods describe uses for fluoride ion-selective electrode technology and anticipate that the sample-specific preparations such as digestion, distillation, etc., have been described in the standards specific to product types.