Australian Standard®

Methods for sampling and analysis of ambient air

Method 6.1: Determination of ozone—Direct-reading instrumental method

PREFACE

This Standard was prepared by the Australian members of Joint Standards Australia/Standards New Zealand Committee EV-007 Methods for Examination of Air, to supersede AS 3580.6.1—1990, Method 6.1: *Determination of ozone—Direct-reading instrumental method*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

This Standard has been developed as a performance-based standard that includes ultraviolet photometry and other direct-reading instrumental methods.

The requirements for instruments found to be suitable for using this method are given in the United States Environmental Protection Agency (US EPA) Title 40, Part 53 of the Code of Federal Regulations (40 CFR Part 53)—Ambient Air Monitoring Reference and Equivalent Methods, Subpart B—Procedures for Testing Performance Characteristics of Automated Methods.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

FOREWORD

Ozone is a gas that is formed when nitrogen oxides react with pollutants known as 'volatile organic compounds' in the presence of sunlight. The volatile organic compounds that react to form ozone originate from sources such as motor vehicle exhaust, oil refining, printing, petrochemicals, lawn mowing, aviation, bushfires and burning off, as well as natural emissions from vegetation.

METHOD

1 SCOPE

This Standard sets out a method for determining ozone in ambient air using a direct-reading instrument. The method applies to the determination of ozone in ambient air within the concentration range 0 to 0.5 p.p.m. by volume (0 to ≈ 1100 $\mu g/m^3$).