Australian Standard®

Methods for the sampling and analysis of indoor air

Method 6: Determination of formaldehyde—Impinger sampling—Chromotropic acid method

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH/19 on Methods for Examination of Air as part of the AS 2365 series on sampling and analysis of indoor air.

The objective of this Standard is to provide those involved in the sampling and analysis of indoor air with a standardized method for the determination of formaldehyde content in indoor air.

This Standard is the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

METHOD

1 SCOPE This Standard sets out a spectrophotometric method for the determination of formaldehyde in indoor air using impinger collection. The method is applicable to formaldehyde concentrations in air in the approximate range 0.01 p.p.m. to 1 p.p.m. Sampling periods of 1 h to 4 h are normally used.

NOTE: Phenol results in significant negative interference if present at more than about 30–40% of the formaldehyde concentration. This method is not recommended if it is known or suspected that phenol may be present. Other substances reported to cause negative interference, if present in concentrations in excess of the formaldehyde concentration are ethanol, ethylene, propylene, methyl butadiene and some aromatic hydrocarbons, though these chemicals are unlikely to be present at concentrations in excess of formaldehyde.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

2162 Code of practice for the use of volumetric glassware

2164 One-mark volumetric flasks

2166 One-mark pipettes

3640 Workplace atmospheres—Method for sampling and gravimetric determination of inspirable dust