

# Australian Standard<sup>®</sup>

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## Paints and related materials—Methods of test

### Method 503.1: Determination of water by the Dean and Stark method

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AS 1580.503.1—2006

#### PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee CH-003, Paints and Related Materials to supersede the 1994 edition of the Standard.

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#### METHOD

##### 1 SCOPE

This method describes a procedure for determining water in Aluminium or Zinc base paints or paint materials, other than water-based paints, using a Dean and Stark apparatus complying with AS 4333.

##### 2 REFERENCED DOCUMENT

The following document is referred to in this Standard:

AS  
4333 Dean and Stark apparatus

##### 3 PRINCIPLE

A sample of the test paint is mixed with toluene and a small volume of amyl or ethyl acetate and boiled in a flask connected to the Dean and Stark apparatus. Distillation is continued until water recovery ceases. The volume of water collected is then measured and reported as a percentage of the mass of the test sample.

##### 4 OCCUPATIONAL HEALTH AND SAFETY GUIDANCE

The following criteria apply:

- (a) During handling, the precautions for use, as outlined in supplier's Materials Safety Data Sheet (MSDS) should be followed.
- (b) Appropriate safety precautions should be observed when handling hot items.
- (c) Wearing safety glasses is recommended during the process.