AS ISO 16467—2007
ISO 16467:2003

AS ISO 16467—2007

Australian Standard®

Transport packages for dangerous goods—Test methods for IBCs



This Australian Standard® was prepared by Committee CH-009, Safe Handling of Chemicals.
It was approved on behalf of the Council of Standards Australia on 13 July 2007.
This Standard was published on 12 September 2007.

The following are represented on Committee CH-009:

- ACCORD Australia
- Agsafe
- Australasian Fire Authorities Council
- Australian Institute of Petroleum
- Australian Paint Manufacturers' Federation
- Consumers Federation of Australia
- Department of Consumer and Employment Protection, WA
- Department of Emergency Services, Qld
- Department of Environment and Conservation, NSW
- Department of the Premier and Cabinet, SA
- Engineers Australia
- New Zealand Chemical Industry Council
- Plastics and Chemicals Industries Association
- Tranz Rail (New Zealand)
- Victorian WorkCover Authority

This Standard was issued in draft form for comment as DR 07254.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting www.standards.org.au

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard®

Transport packages for dangerous goods—Test methods for IBCs

First published as AS ISO 16467—2007.

COPYRIGHT

© Standards Australia

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 8370 8

PREFACE

This Standard was prepared by Standards Australia/Standards New Zealand Committee CH-009, Safe Handling of Chemicals. It is identical with and has been reproduced from ISO 16467:2003, *Packaging—Transport packages for dangerous goods—Test methods for IBCs*.

As this Standard is reproduced from an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

(b) In the source text 'this European Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian Standard*	
EN ISO/IEC		AS ISO/IEC	
17025	General requirements for the competence of testing and calibration laboratories	17025	General requirements for the competence of testing and calibration laboratories

Only international references that have been adopted as Australian Standards have been listed.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex to which they apply. A 'normative' annex is an integral part of a Standard, whereas an 'informative' annex is only for information and guidance.

CONTENTS

Page

1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Test requirements **3**
5 Selection and preparation of test IBCs **7**
6 Facilities for testing **10**
7 Testing procedures **11**
Annex A (informative) **Guidance on liquids and solids** **19**
Annex B (normative) **Test report** **20**
Annex C (normative) **IBC Specifications** **22**
Annex D (informative) **Selective testing and variations from a tested design type** **27**
Annex E (informative) **Top lift test for FIBCs using specialized apparatus** **29**
Bibliography **31**

INTRODUCTION

This Standard was developed to provide requirements and test procedures to meet the multi-modal United Nations Recommendations on the Transport of Dangerous Goods [1] and successful passing of the tests can lead to the allocation of an appropriate UN IBC mark. The UN Recommendations have been developed by the United Nations Committee of Experts on the Transport of Dangerous Goods as a model regulation (referred to in this document as the UN Recommendations) in the light of technical progress, the advent of new substances and materials, the exigencies of modern transport systems and, above all, the need to ensure the safety of people, property and the environment. Amongst other aspects, the UN Recommendations cover principles of classification and definition of classes, listing of the principal dangerous goods, general packing requirements, testing procedures, marking, labelling or placarding, and shipping documents. There are in addition special recommendations related to particular classes of goods.

The UN Recommendations are given legal entity by the provisions of a series of international modal agreements and national legislation for the transport of dangerous goods. The international agreements include:

The European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) (covering most of Europe). [2]

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) (covering most of Europe, parts of North Africa and the Middle East). [3]

The International Maritime Dangerous Goods Code (worldwide). [4]

The International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TIs)(worldwide). [5]

The application of this Standard will need to take account of the requirements of these international agreements and the relevant national regulations for domestic transport of dangerous goods.

It is important to note that there will be certain modal differences from the UN Recommendations and that the schedule for revision of the Recommendations and modal provisions may lead to temporary inconsistencies with this Standard, which is regularly updated to the latest version of the UN Recommendations.

It is noted that success in the tests and the allocation of an official UN mark do not on their own authorize the use of an IBC for any dangerous goods. There are other regulatory provisions that have to be taken into account in each instance.

This European Standard is based on Revision 12 of the UN Recommendations.

AUSTRALIAN STANDARD

Transport packages for dangerous goods—Test methods for IBCs

1 Scope

This European Standard specifies the design type test requirements for Intermediate Bulk Containers (IBCs) as described in 3.2 of this standard and intended for use in the transport of dangerous goods.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

ISO 6789, *Assembly tools for screws and nuts — Hand torque tools — Requirements and test methods for design conformance testing, quality conformance testing and recalibration procedure*

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:1999).*

3 Terms and definitions

For the purposes of this European Standard the following terms and definitions apply.

3.1
competent authority
any national regulatory body or authority designated or otherwise recognized as such for any purpose in connection with the regulations specified in the Bibliography.

3.2
Intermediate Bulk Containers (IBCs)
rigid or flexible portable packagings, other than those specified in Chapter 6.1 of the UN Recommendations, that:

— have a capacity of:

i) not more than 3,0 m^3 (3,000 l) for solids and liquids of Packing Groups II and III;

ii) not more than 1,5 m^3 for solids of Packing Group I when packed in flexible, rigid plastics, composite, fibreboard and wooden IBCs;

iii) not more than 3,0 m^3 for solids of Packing Group I when packed in metal IBCs.

iv) not more than 3,0 m^3 for radioactive material of class 7

— are designed for mechanical handling;

— are resistant to the stresses produced in handling and transport, as determined by tests.

3.3
IBC design type
IBC of one design, size, material and thickness, manner of construction and means of filling and discharging, including various surface treatments, together with IBCs which differ from the design type only in their lesser external dimensions

© Standards Australia