

Australian Standard[®]

**The storage and handling of corrosive
substances**



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 20 June 2008. This Standard was published on 28 July 2008.

The following are represented on Committee CH-009:

- ACCORD Australasia
 - Australasian Fire Authorities Council
 - Australian Paint Manufacturers Federation
 - Agsafe
 - Consumers' Federation of Australia
 - Department of the Premier and Cabinet, SA
 - Department of Consumer and Employment Protection, WA
 - Department of Defence
 - Department of Emergency Services, Qld
 - Department of Environment and Climate Change, NSW
 - Department of Justice, Tas.
 - Engineers Australia
 - Plastics and Chemicals Industries Association
 - The New Zealand Chemical Industry Council
 - Tranz Rail, New Zealand
 - Victorian WorkCover Authority
-

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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.

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The storage and handling of corrosive substances

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH-009, Safe Handling of Chemicals, to supersede AS 3780—1994. Revision of this Standard was commenced following the committee's decision that the series of Standards relating to the storage and handling of dangerous goods needed to be reviewed and updated to reflect changes in regulatory requirements and control philosophies that have been refined since the publication of the 1994 edition.

This Standard incorporates Amendment No. 1 (February 2009). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian rather than an Australian/New Zealand Standard.

A1 | This Standard deals with corrosive substances that are classified as dangerous goods of Class 8, as classified in the UN *Recommendations on the Transport of Dangerous Goods—Model Regulations*.

The purpose of this Standard is to promote the safety of persons, property and the environment where corrosive substances are stored and handled, by providing requirements and recommendations based on industry good practice.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of the Standard, i.e. its requirements are mandatory, whilst an 'informative' appendix provides information and guidance only.

Statements expressed in mandatory terms in notes to tables are requirements of this Standard. Notes that appear in the main text of this Standard provide information only.

The series of documents covering the storage, handling and transport of dangerous goods currently includes the following:

HB 76	Dangerous goods—Initial emergency response guide
AS	
1216	Class labels for dangerous goods
1678	Emergency procedure guides—Transport (series)
1894	The storage and handling of non-flammable cryogenic and refrigerated liquids
1940	The storage and handling of flammable and combustible liquids
2187	Explosives—Storage, transport and use (series)
2507	The storage and handling of agricultural and veterinary chemicals
2714	The storage and handling of hazardous chemical materials—Class 5.2 substances (organic peroxides)
2809	Road tank vehicles for dangerous goods (series)
3846	The handling and transport of dangerous cargoes in port areas
4289	Oxygen and acetylene reticulation systems
4326	The storage and handling of oxidizing agents
5034	Installation and use of inert gases for beverage dispensing

AS/NZS

- 1596 The storage and handling of LP Gas
- 2022 Anhydrous ammonia—Storage and handling
- 2927 The storage and handling of liquefied chlorine gas
- 4081 The storage and handling of liquid and liquefied polyfunctional isocyanates
- 4452 The storage and handling of toxic substances
- 4681 The storage and handling of Class 9 (miscellaneous) dangerous goods and articles

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STANDARDS AUSTRALIA

Australian Standard

The storage and handling of corrosive substances

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out requirements and recommendations for the safe storage and handling of corrosive substances, i.e. substances that meet the Class 8 classification criteria of the ADG Code.

The Standard also applies to other dangerous goods that are assigned a Class 8 subsidiary risk by the ADG Code, except where they are of Class 2 or where more stringent requirements apply under another relevant Australian Standard or applicable regulation.

This Standard provides minimum acceptable safety requirements for storage facilities, operating procedures, emergency planning and fire protection. It also provides technical guidance that may assist in the storage and handling of corrosive substances in accordance with the risk management requirements of NOHSC:1015 and legislation that draws on that document.

NOTE: A discussion of the hazards presented by corrosive substances is provided in Appendix A.

1.2 APPLICATION

1.2.1 Where this Standard applies

This Standard applies in locations that are generally industrial, commercial or rural in nature. Its requirements apply in conjunction with, but do not take precedence over, any government regulations that apply in any area.

NOTES:

- 1 An installation may come under the regulatory control of several authorities having differing areas of responsibility, and an approval from one authority does not necessarily constitute an approval from others.
- 2 The *Building Code of Australia* (BCA) applies to all matters relating to building works.

Stores where the corrosive substances have one or more Subsidiary Risks shall, in addition to the requirements of this Standard, comply with the appropriate requirements of State regulations or Australian Standards relevant to those Subsidiary Risks. Where none of the above covers the situation adequately, the appropriate storage arrangements shall be determined by risk assessment, taking into consideration the specific properties of the substances being stored.

1.2.2 Where this Standard does not apply

This Standard does not apply to the following:

- (a) Gases having a Class 8 Subsidiary Risk, e.g. chlorine.
- (b) Corrosive materials that are not Class 8 dangerous goods.
- (c) The transport of corrosive substances, which is dealt with in the ADG Code.
- (d) The bulk transfer of corrosive substances between a ship and an onshore store, which is controlled by the relevant port authority. AS 3846 should be consulted.
- (e) The manufacture of corrosive substances.