AS/NZS 2022:2003
(Incorporating Amendment No. 1)

Australian/New Zealand Standard™

Anhydrous ammonia—Storage and handling

Standards Australia

STANDARDS NEW ZEALAND
Paerewa Aotearoa

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-032, Anhydrous Ammonia Storage and Handling. It was approved on behalf of the Council of Standards Australia on 28 February 2003 and on behalf of the Council of Standards New Zealand on 5 March 2003. It was published on 25 March 2003.

The following are represented on Committee ME-032:

Australian Chamber of Commerce and Industry
Australasian Fire Authorities Council
Australian Industrial Gas Manufacturers Association
Department for Administrative and Information Services, S.A.
New Zealand chemical Industry Council
Plastics and Chemical Industries Association
Victorian WorkCover Authority
WorkCover New South Wales

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This Standard was issued in draft form for comment as DR 00100.

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Anhydrous ammonia—Storage and handling

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-032, Anhydrous Ammonia Storage and Handling to supersede AS 2022—1983, *Anhydrous ammonia—Storage and handling (known as the SAA Anhydrous Ammonia Code)*.

This Standard incorporates Amendment No. 1 (December 2003). 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.

The objective of this Standard is to provide distributors and users with procedures for the safe storage and handling of anhydrous ammonia.

In addition to the updating of the list of reference documents and editorial changes in accordance with current policy, the following changes have been included in this edition:

(a) Reference to AS/NZS 3788 for pressure vessel inspections.

(b) Reduction in test pressure and increase in frequency for the testing of flexible hoses.

(c) Changes to the requirements for personal protective equipment during transfer operations.

(d) Alignment with the Australian Dangerous Goods Code, as appropriate.

(e) Addition of requirements for emergency shut down and drive-away protection systems.

(f) Addition of requirements for the management of emergencies.

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 a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for the design, repair, alteration, location, installation and operation of plant used for the storage, handling and transport of anhydrous ammonia in industrial and rural situations.

This Standard is not applicable to—

(a) ammonia manufacturing plants;

(b) manufacturing plants and other systems involving the use of ammonia; and

(c) refrigeration systems, where anhydrous ammonia is used solely as a refrigerant.

The storage, handling and transport of anhydrous ammonia associated with these plants are not excluded.

NOTE: A guide to the properties of anhydrous ammonia is given in Appendix A.

1.2 REFERENCED DOCUMENTS

The documents listed in the Appendix B are referred to in the Standard.

1.3 DEFINITIONS

For the purpose of this Standard, the definitions given in AS 4942 and those below apply.

1.3.1 Authorized person

A person specifically appointed by an anhydrous ammonia distributor or the distributor's agent to perform the duties of that position.

1.3.2 Capacity (of a tank, cylinder or drum)

The total volume of the space enclosed within the tank or cylinder, expressed in litres or cubic metres.

NOTES:

1 This is synonymous with and numerically equal to water capacity.

2 Capacity is sometimes expressed as the equivalent mass of water.

1.3.3 Container

A cylinder or tank specifically designed and constructed for the storage or transport of anhydrous ammonia.

1.3.4 Depot

A stationary anhydrous ammonia storage system, including the container or containers, container fittings and the ancillary equipment essential for the safe operation of the system.

1.3.5 Filler

A competent person authorized to fill containers with anhydrous ammonia.