

Australian Standard[®]

**The storage and handling of flammable
and combustible liquids**



This Australian Standard® was prepared by Committee ME-017, Flammable and Combustible Liquids. It was approved on behalf of the Council of Standards Australia on 2 September 2004.

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The storage and handling of flammable and combustible liquids

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PREFACE

This Standard was prepared by Standards Australia Committee ME-017, Flammable and Combustible Liquids, to supersede AS 1940—1993, *The storage and handling of flammable and combustible liquids*. This new edition is the result of a comprehensive review of the Standard.

This Standard incorporates Amendment No. 1 (November 2004) and Amendment No. 2 (November 2006). 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.

This Standard deals with flammable liquids of dangerous goods Class 3, as classified in the UN *Recommendations on the Transport of Dangerous Goods—Model Regulations*, and combustible liquids. The objective of this Standard is to promote the safety of persons and property where flammable or combustible liquids are stored or handled, by providing requirements and recommendations that are based on industry best practices.

This new edition of the Standard has been aligned with the current needs of regulatory authorities, emergency services and environmental authorities, and the various publications of the National Occupational Health and Safety Commission.

This Standard has been revised to reflect control philosophies and innovative designs that have been developed since the last edition. One major change in this revision of the Standard is the inclusion of requirements and recommendations for the storage and handling of potable alcohols in bulk and having a strength of greater than 24% v/v ethanol. Another is the inclusion of informative appendices providing guidance on the design and location of blending plants and batch blending and filling operations.

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.

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

The series of Standards covering the storage and handling of dangerous goods presently comprises the following Standards:

AS	
1894	The storage and handling of non-flammable cryogenic and refrigerated liquids
2022	Anhydrous ammonia—Storage and handling (known as the SAA Anhydrous Ammonia Code)
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)
3780	The storage and handling of corrosive substances
3846	The handling and transport of dangerous cargoes in port areas
3961	Liquefied natural gas—Storage and handling
4326	The storage and handling of oxidizing agents
AS	
4332	The storage and handling of gases in cylinders

AS/NZS

- 1596 The storage and handling of LP Gas
- 2927 The storage and handling of liquefied chlorine gas
- 3833 The storage and handling of mixed classes of dangerous goods in packages and intermediate bulk containers
- 4081 The storage, handling and transport 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

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	8
1.2 APPLICATION	8
1.3 REFERENCED DOCUMENTS	9
1.4 DEFINITIONS	9
SECTION 2 MINOR STORAGE	
2.1 SCOPE OF SECTION	20
2.2 MINOR STORAGE QUANTITIES.....	20
2.3 PRECAUTIONS APPLYING TO MINOR STORAGE.....	26
2.4 MINOR STORAGE IN TANKS.....	27
SECTION 3 GENERAL REQUIREMENTS	
3.1 SCOPE OF SECTION	28
3.2 GENERAL DESIGN AND CONSTRUCTION REQUIREMENTS	28
3.3 ELECTRICAL INSTALLATIONS AND EQUIPMENT.....	30
3.4 INTERNAL COMBUSTION ENGINES	30
3.5 LIGHTING	31
3.6 RESTRICTED USAGE	31
3.7 FIREWALLS AND VAPOUR BARRIERS.....	31
3.8 SECURITY, SIGNS AND NOTICES.....	32
3.9 TRANSIT STORAGE	32
3.10 IGNITION SOURCES.....	34
SECTION 4 PACKAGE STORAGE AND HANDLING AREAS	
4.1 SCOPE OF SECTION	35
4.2 TYPES OF STORES	35
4.3 LOCATION AND SEPARATION DISTANCES.....	39
4.4 CONSTRUCTION.....	43
4.5 VENTILATION	45
4.6 GENERAL REQUIREMENTS	51
4.7 STORAGE OF IBCs.....	51
4.8 STORAGE IN FREIGHT CONTAINERS.....	51
4.9 STORAGE IN STORAGE CABINETS.....	52
4.10 ACTIVITIES WITHIN PACKAGE STORES	54
4.11 OFFICES WITHIN PACKAGE STORES	54
SECTION 5 STORAGE IN TANKS	
5.1 SCOPE OF SECTION	55
5.2 GENERAL REQUIREMENTS	56
5.3 STORAGE TANK FILL POINTS	58
5.4 VENTING	59
5.5 EMERGENCY VENTING	62
5.6 LOCATION AND CAPACITY OF INDOOR TANKS	63
5.7 SEPARATION OF ABOVE-GROUND TANKS	64
5.8 BUNDS AND COMPOUNDS.....	67
5.9 REQUIREMENTS FOR ABOVE-GROUND TANKS WITH INTEGRAL SECONDARY CONTAINMENT	70

Page

5.10	REQUIREMENTS FOR TANK CONTAINERS (ISO TANKS, PORTABLE TANKS) WHEN USED AS STATIC STORAGE TANKS	72
5.11	INSTALLATION METHODS FOR ABOVE-GROUND TANKS	72
5.12	INSTALLATION METHODS FOR UNDERGROUND TANKS	73
5.13	INSTALLATION METHODS FOR TANKS IN TANK CHAMBERS	74
5.14	SERVICE TANKS	75
SECTION 6 SYSTEMS FOR PIPING, VALVES PUMPS AND TANK HEATING		
6.1	GENERAL DESIGN AND CONSTRUCTION	77
6.2	PIPING	77
6.3	VALVES	79
6.4	PUMPS	80
6.5	HEATING OF LIQUIDS	80
SECTION 7 FUEL DISPENSING		
7.1	SCOPE OF SECTION	82
7.2	GENERAL REQUIREMENTS	82
7.3	DISPENSERS	83
7.4	DELIVERY HOSES AND NOZZLES	85
7.5	MARINE DISPENSERS	85
7.6	OPERATIONS	86
SECTION 8 TANK VEHICLE LOADING FACILITIES		
8.1	SCOPE OF SECTION	88
8.2	GENERAL REQUIREMENTS	88
8.3	TOP-FILLING INSTALLATIONS	90
8.4	BOTTOM-LOADING FACILITIES	91
SECTION 9 OPERATIONAL AND PERSONNEL SAFETY		
9.1	SCOPE OF SECTION	93
9.2	GENERAL PRECAUTIONS	93
9.3	OPERATING PROCEDURES	96
9.4	MANAGEMENT OF LEAKS AND SPILLS	98
9.5	PLACARDING	99
9.6	LIQUID TRANSFER	99
9.7	EFFLUENT CONTROL	99
9.8	CONSTRUCTION AND MAINTENANCE WORK	99
9.9	GAS-FREEING OF TANKS AND PACKAGES	102
9.10	PERSONNEL TRAINING	102
9.11	RECORDS	103
9.12	PERSONAL PROTECTIVE EQUIPMENT	104
9.13	FIRST AID	104
9.14	ADDITIONAL REQUIREMENTS FOR THE STORAGE AND HANDLING OF PACKAGES	105
9.15	ADDITIONAL REQUIREMENTS FOR PIPING AND VALVE SYSTEMS	107
9.16	ADDITIONAL REQUIREMENTS FOR PIPEWORK	107
9.17	ADDITIONAL REQUIREMENTS FOR TANKS	107
9.18	BULK TRANSFER	111

SECTION 10 EMERGENCY MANAGEMENT

10.1 SCOPE OF SECTION	114
10.2 PLANNING FOR EMERGENCIES	114
10.3 MANIFEST	115
10.4 PLACARDING.....	115

SECTION 11 FIRE PROTECTION

11.1 SCOPE OF SECTION	116
11.2 APPLICATION OF SECTION.....	116
11.3 GENERAL REQUIREMENTS FOR FIRE PROTECTION EQUIPMENT	116
11.4 PORTABLE FIRE EXTINGUISHERS	118
11.5 FIXED FIRE PROTECTION AND DETECTION SYSTEMS.....	119
11.6 FIRE PROTECTION REQUIREMENTS FOR PRODUCT PUMPS, MANIFOLDS AND HOSE CONNECTION POINTS.....	121
11.7 FIRE PROTECTION REQUIREMENTS FOR TANK VEHICLE TRANSFER AREAS.....	121
11.8 FIRE PROTECTION REQUIREMENTS FOR PACKAGE STORAGE AND HANDLING AREAS	122
11.9 FIRE PROTECTION REQUIREMENTS FOR FUEL DISPENSING INSTALLATIONS	123
11.10 FIRE PROTECTION REQUIREMENTS FOR ABOVE-GROUND FIRE-RATED TANKS, TANKS UNDERGROUND OR IN CHAMBERS	123
11.11 FIRE PROTECTION REQUIREMENTS FOR ABOVE-GROUND TANK STORAGE OF AGGREGATE CAPACITY LESS THAN 60 m ³	125
11.12 FIRE PROTECTION REQUIREMENTS FOR ABOVE-GROUND TANK STORAGE OF AGGREGATE CAPACITY 60 m ³ TO 2000 m ³	126
11.13 FIRE PROTECTION REQUIREMENTS FOR ABOVE-GROUND TANK STORAGE OF AGGREGATE CAPACITY 2000 m ³ AND GREATER	127
11.14 PIPING AND PUMPING SYSTEMS.....	129
11.15 COOLING WATER	131
11.16 FIXED FOAM SYSTEMS FOR TANKS	131

SECTION 12 WASTE STORAGE AND DISPOSAL

12.1 SCOPE OF SECTION	137
12.2 STORAGE OF WASTES	137
12.3 WASTE MANAGEMENT	137
12.4 WASTE DISPOSAL.....	137
12.5 PRE-DISPOSAL TREATMENT OF EMPTY CONTAINERS.....	138
12.6 METHODS OF DISPOSAL	138

APPENDICES

A FLAMMABLE LIQUIDS.....	139
B LIST OF REFERENCED DOCUMENTS	142
C RECOMMENDATIONS FOR THE DESIGN AND CONSTRUCTION OF BLENDING PLANTS	147
D USE OF NON-FLAMEPROOF FORK-LIFT TRUCKS AND VEHICLES IN FLAMMABLE LIQUIDS PACKAGE STORES	150
E RECOMMENDATIONS FOR THE STORAGE AND HANDLING OF PACKAGED FLAMMABLE LIQUIDS IN COOLROOMS	154

	<i>Page</i>
F ISSUES TO BE CONSIDERED IN A RISK ASSESSMENT	156
G STORAGE AND HANDLING OF POTABLE SPIRITS IN BULK.....	159
H POWER STATION AND GRID TRANSFORMERS.....	163
I TANK VENTING.....	164
J FIRE EXPOSURE PROTECTION	168
K COMBUSTION CHARACTERISTICS.....	172
L GAS-FREEING PRECAUTIONS AND PRINCIPLES	174
M RECOMMENDATIONS FOR BATCH BLENDING OF FLAMMABLE LIQUIDS.....	176
N EMERGENCY PLANNING AND MANAGEMENT	179

STANDARDS AUSTRALIA

Australian Standard**The storage and handling of flammable and combustible liquids**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out requirements and recommendations for the safe storage and handling of flammable liquids of dangerous goods Class 3, as classified in the UN *Recommendations for the Transport of Dangerous Goods—Model Regulations* and listed in the ADG Code. This Standard also provides requirements and recommendations for the storage and handling of combustible liquids, as defined in Clause 1.4.9.

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

This Standard provides requirements for commonly used flammable and combustible liquids such as hydrocarbons and industrial solvents. Some flammable and combustible liquids have other physical and chemical properties that require additional precautions and design considerations. Examples of these are—

- (a) liquids that can polymerize;
- (b) liquids that require blanketing with inert gas;
- (c) liquids that are heated; and
- (d) liquids that are assigned a subsidiary risk.

Any special precautions and considerations necessary for the safe storage and handling of such liquids are additional to the requirements and recommendations provided in this Standard.

For the storage and handling of dangerous goods of another class but having a Class 3 subsidiary risk, this Standard is relevant to their flammability aspects.

1.2 APPLICATION**1.2.1 Where this Standard applies**

This Standard applies to the storage and handling of Class 3 dangerous goods as described and listed in the ADG Code, with the exception of desensitized explosives of Class 3. It also applies to the storage and handling of combustible liquids. The requirements of this Standard apply in conjunction with, but do not take precedence over, any government regulations that apply in any area.

NOTE: Further information on the classification of flammable liquids, based on the 6th edition of the ADG Code, is given in Appendix A.



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