

Australian/New Zealand Standard™

Classification of hazardous areas

**Part 3.3: Examples of area
classification—Flammable liquids**



AS/NZS 2430.3.3:2004

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee MS-011, Classification of Hazardous Areas. It was approved on behalf of the Council of Standards Australia on 31 March 2004 and on behalf of the Council of Standards New Zealand on 30 April 2004. This Standard was published on 20 May 2004.

The following are represented on Committee MS-011:

Auckland Regional Chamber of Commerce
Australian Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Gas Association
Australian Industry Group
Australian Liquefied Petroleum Gas Association Limited
Australian Paint Manufacturers Federation
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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Australian/New Zealand Standard™

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Part 3.3: Examples of area classification—Flammable liquids

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MS-011, Classification of Hazardous Areas, to supersede AS/NZS 2430.3.3:1997, *Classification of hazardous areas, Part 3.3: Examples of area classification—Flammable liquids*.

This Standard incorporates Amendment No. 1 (August 2007). 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 the AS/NZS 2430.3 series of Standards is to provide guidance to the industries and statutory authorities concerned with the classification of hazardous areas.

Changes to the 1997 edition include—

- (a) incorporation of the issued amendment;
- (b) title of Clause 4.1.2 has changed;
- (c) rewording of Clauses 4.1.3(a), 4.3(b)(ii) and 4.11;
- (d) inclusion of a new Clause 4.1.4 – *Above ground vaulted or double skinned tanks*;
- (e) minor adjustments in the wording of Clause 4.6.2 and Figures 4.6 and 4.7;
- (f) correction of typographical errors;
- (g) alteration of the symbols for hazardous areas zones (to align with AS/NZS 60079.10); and
- (h) update of referenced documents.

This series of Standards details examples of area classification of commonly occurring situations, based on the principles of AS/NZS 60079.10, *Electrical apparatus for explosive gas atmospheres, Part 10: Classification of hazardous areas*.

The AS/NZS 2430.3 series is as follows:

AS/NZS	
2430.3	Classification of hazardous areas—Examples of area classification
2430.3.1	Part 3.1: General
2430.3.2	Part 3.2: Vehicle workshops, vehicle parking, fuel dispensing stations and aircraft hangars
2430.3.3	Part 3.3: Flammable liquids (this Part)
2430.3.4	Part 3.4: Flammable gases
2430.3.5	Part 3.5: Refineries and major processing plants
2430.3.6	Part 3.6: Laboratories including fume cupboards and flammable medical agents
2430.3.7	Part 3.7: Landfill gas, sewage treatment and sewage pumping plants
2430.3.8	Part 3.8: Surface coatings and adhesives
2430.3.9	Part 3.9: Miscellaneous

The AS 2430 series of Standards for classification of hazardous areas used to be formed by AS 2430.1, AS 2430.2 and AS 2430.3.

AS 2430.2 was replaced by AS/NZS 61241.3 in 1999 and AS 2430.1 was replaced by AS/NZS 60079.10 in 2004.

In 1997, AS 2430.3 was split into a Series of nine Parts – 3.1 to 3.9; these initial nine Parts have been superseded by this 2004 edition.

CONTENTS

	<i>Page</i>
1 SCOPE.....	4
2 REFERENCED DOCUMENTS.....	4
3 DEFINITIONS.....	5
4 CLASSIFICATION OF HAZARDOUS AREAS.....	5

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Classification of hazardous areas**Part 3.3: Examples of area classification—Flammable liquids****1 SCOPE**

This Standard provides examples of area classification for areas associated with the production, processing, handling, transferring and storage of flammable liquids. It is part of the AS/NZS 2430.3 series, which recommends the classification of several commonly occurring situations and should be read in conjunction with AS/NZS 2430.3.1.

This Standard also addresses flammable vapours from non-flammable liquids (combustible liquids), and associated equipment other than the process equipment such as pits, waste collection facilities and ventilation air ducts.

NOTE: Combustible liquids that are stored, handled or processed at a temperature $T \geq FP - 6^{\circ}\text{C}$ (where FP = flashpoint of the liquid) should be considered as flammable liquids. Zonal distances for such liquids should be determined in accordance with this Standard unless a detailed classification in accordance with AS/NZS 60079.10 indicates otherwise.

The classifications given in this Standard are not representative examples of the storage and use of flammable liquids for quantities up to—

- (a) 100 L in closed containers;
- (b) 25 L for decanting purposes, e.g. petrol transfer to a motor vehicle or lawn mower;
- (c) 5 L in open containers for occasional use; or
- (d) 1 L in open container for continuous use.

NOTE: Under some circumstances, particularly in confined spaces, caution should be taken with small quantities of flammable liquids as these may give rise to hazardous areas.

For surface coatings and adhesives reference should be made to AS/NZS 2430.3.8 and for flammable liquids (and gases) in refineries and major processing plants reference should be made to AS/NZS 2430.3.5, which uses the Generalized Method of classification.

NOTE: The classifications given in this Standard are based on the assumption that the installations are carried out in accordance with the relevant requirements of the authority having jurisdiction (refer to Scope of AS/NZS 2430.3.1).

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1940	The storage and handling of flammable and combustible liquids
2809	Road-tank vehicles for dangerous goods
AS/NZS	
2053	Conduits and fittings for electrical installations
2430.3	Classification of hazardous areas— Examples of area classification
2430.3.1	Part 3.1: General
2430.3.2	Part 3.2: Vehicle parking, vehicle workshops, fuel dispensing stations and aircraft hangars