

Australian Standard[®]

Classification, hazard identification and information systems for dangerous goods

Part 2: HAZCHEM emergency action code

Part 3: NFPA hazard identification system

Part 4: UN substance identification numbers

[Title allocated by Defence Cataloguing Authority:
CLASSIFICATION, HAZARD IDENTIFICATION AND INFORMATION
SYSTEMS FOR DANGEROUS GOODS
AS 1216, PART 2—HAZCHEM EMERGENCY ACTION CODE
AS 1216, PART 3—NFPA HAZARD IDENTIFICATION SYSTEM
AS 1216, PART 4—UN SUBSTANCE IDENTIFICATION NUMBERS]

THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Agricultural and Veterinary Chemicals Association of Australia
Australian Chamber of Commerce
Australian Chemical Industry Council
Australian Council of Trade Unions
Australian Institute of Petroleum Limited
Australian Medical Association
Australian Road Transport Federation
Board of Fire Commissioners of New South Wales
Commonwealth Institute of Health
Confederation of Australian Industry
Country Fire Authority
Department of Defence
Department of Industry and Commerce
Department of Science and Technology
Department of Industrial Relations, N.S.W.
Department of Minerals and Energy, Vic.
Health Commission of New South Wales
Insurance Council of Australia
Metropolitan Fire Brigades Board, Melbourne
National Health and Medical Research Council
Public Health Department, W.A.
Railways of Australia Committee

This standard, prepared by Committee CH/9, Safe Handling of Chemicals, was approved on behalf of the Council of the Standards Association of Australia on 4 May 1981, and was published on 1st July 1981.

To keep abreast of progress in industry, Australian standards are subject to continuous review and are kept up-to-date by the issue of amendments or new editions as necessary. It is important therefore that standards users ensure that their standards are up-to-date. Full details of all SAA publications will be found in the Annual List of Australian Standards; these details are supplemented by listings in the SAA monthly journal 'The Australian Standard'. Information on the Annual List and 'The Australian Standard' may be obtained from any sales office of the Association, where details are also available of the current status of individual standards. Suggestions for improvements to published standards, addressed to the head office of the Association, are welcomed.

AUSTRALIAN STANDARD

**CLASSIFICATION,
HAZARD IDENTIFICATION
AND INFORMATION SYSTEMS FOR
DANGEROUS GOODS**

**Part 2
HAZCHEM EMERGENCY
ACTION CODE**

AS 1216, Part 2—1981

**Part 3
NFPA HAZARD
IDENTIFICATION SYSTEM**

AS 1216, Part 3—1981

**Part 4
UN SUBSTANCE
IDENTIFICATION NUMBERS**

AS 1216, Part 4—1981

First published1981

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 2290 9

PREFACE

This standard was prepared by the Association's Committee on Safe Handling of Chemicals, under the direction of the Chemical Standards Board. It includes the second, third and fourth parts of a series explaining the classification of dangerous goods and the various hazard identification and emergency information systems, and their associated marking symbols, designed to facilitate the safe handling, transport and storage of dangerous goods.

Part 2 deals with the HAZCHEM emergency action code which was originally developed in the United Kingdom and is now widely used in Australia, particularly as a component of the information placarding on transport vehicles. It has been adopted in the Australian Transport Advisory Council's Australian Code for the Transport of Dangerous Goods by Road and Rail.

Part 3 deals with the hazard identification system developed by the National Fire Protection Association (NFPA) of the U.S.A. The NFPA hazard identification symbols have been incorporated into the program of work of the SAA committee, for completeness of information. They are included in AS, Safe Storage and Handling Information Cards*, which identify the hazards of dangerous goods.

Part 4 briefly introduces the United Nations system of assigning a separate number to all substances classified as 'dangerous goods' so that they can be identified by a reference to that particular number. This facilitates the assembly of physical and chemical data and of emergency information associated with that substance and is therefore an integral part of the system of standards dealing with dangerous goods.

*In course of preparation.

CONTENTS

	<i>Page</i>
AS 1216, PART 2—HAZCHEM EMERGENCY ACTION CODE	
FOREWORD	4
SECTION 1. SCOPE AND DEFINITIONS	
1.1 Scope	5
1.2 Definitions	5
SECTION 2. INTERPRETATION OF THE HAZCHEM CODE	
2.1 The Code	6
2.2 Interpretation of the Code	6
SECTION 3. EMERGENCY ACTION CODE FOR MIXED LOADS	
3.1 General	8
3.2 The Numeral	8
3.3 The Letters	8
 AS 1216, PART 3—NFPA HAZARD IDENTIFICATION SYSTEM	
SECTION 1. SCOPE, APPLICATION AND DEFINITIONS	
1.1 Scope	9
1.2 Application	9
1.3 Definitions	9
SECTION 2. DESCRIPTION OF NFPA SYMBOL	
2.1 Description of Symbol	10
2.2 Summary of Hazard Scales	11
SECTION 3. BASIS OF HAZARD SIGNALS	
3.1 Introduction	12
3.2 Degrees of Hazard	12
 AS 1216, PART 4—UN SUBSTANCE IDENTIFICATION NUMBERS	
1 Scope	15
2 Application	15
3 Description of United Nations (UN) Numbering System	15

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

CLASSIFICATION, HAZARD IDENTIFICATION AND INFORMATION

SYSTEMS FOR DANGEROUS GOODS

Part 2

HAZCHEM EMERGENCY ACTION CODE

FOREWORD

The HAZCHEM codes used in the Australian Code for the Transport of Dangerous Goods by Road and Rail issued by the Australian Transport Advisory Council (ATAC) are based on those adopted in the United Kingdom. These are assigned by the U.K. Home Office Joint Committee on Fire Brigade Operations and confirmed by the U.K. Health and Safety Executive. The system is covered by Crown copyright, for which permission to reprint has been obtained.

Coding adopted for specific substances is listed in the ATAC Code. The responsible authority in Australia for using HAZCHEM codes on dangerous substances is the Advisory Committee for the Transport of Dangerous Goods of the ATAC. This body bases its codings on those issued by the U.K. Home Office.

The purpose of this standard is to facilitate the understanding and use of the HAZCHEM code system by emergency services which provide assistance at the location of an emergency involving dangerous goods. The HAZCHEM emergency action information code is required to be used by the Australian Code for the Transport of Dangerous Goods by Road and Rail. It is equally useful in connection with the storage and handling of dangerous goods and is referred to in the appropriate Australian standards.

The underlying purpose is to reduce the risk to life, health, property and the environment arising from the hazardous properties of dangerous goods.

SECTION 1. SCOPE AND DEFINITIONS

1.1 SCOPE. This standard explains the HAZCHEM system which is commonly used for conveying information to emergency services in connection with the transport and handling of dangerous goods. The system provides for correct immediate response action in the event of fire or spillage so as to minimize the hazards to people and the local environment. It is therefore recommended as the primary reference for the emergency services.

NOTE: It should be stressed that this simple coding system, comprising a numeral followed by one or more letters, provides only for initial emergency actions and is intended to be augmented by the seeking of additional, specialized advice.

1.2 DEFINITIONS. For the purpose of this standard, the following definitions apply:

1.2.1 Hazard—a physical situation with a potential for harm to life, health or property.

1.2.2 Risk—

- (a) the probability that a hazard may be realized at a specific level in a given span of time; or
- (b) the probability that an individual may suffer a specified level of injury as a result of a hazard, in a given span of time.