

# IMDG Code

2002 Edition

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**International  
Maritime  
Dangerous  
Goods  
Code**

**IMO**

volume  
**1**



INTERNATIONAL  
MARITIME  
ORGANIZATION

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2002 Edition

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**International  
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Goods  
Code**

including Amendment 31-02

volume **1**



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## Foreword

The International Convention for the Safety of Life at Sea, 1974 (SOLAS), as amended, deals with various aspects of maritime safety and contains in part A of chapter VII the mandatory provisions governing the carriage of dangerous goods in packaged form or in solid form in bulk. Regulation VII/1.3 prohibits the carriage of dangerous goods except in accordance with the provisions of part A of chapter VII, which are amplified by the International Maritime Dangerous Goods (IMDG) Code.

Regulation II-2/19 of the SOLAS Convention, as amended, specifies the special requirements for a ship intended to carry dangerous goods, the keel of which was laid or which was at a similar stage of construction on or after 1 July 2002.

The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), deals with various aspects of prevention of marine pollution, and contains in its Annex III the mandatory provisions for the prevention of pollution by harmful substances carried by sea in packaged form. Regulation 1(2) prohibits the carriage of harmful substances in ships except in accordance with the provisions of Annex III, which are also amplified by the IMDG Code.

In accordance with the Provisions concerning Reports on Incidents Involving Harmful Substances (Protocol I to MARPOL 73/78), incidents involving losses of such substances from ships must be reported by the master or other person having charge of the ship concerned. Each substance defined as harmful to the marine environment is identified as a marine pollutant or a severe marine pollutant in column 4 of its entry in the Dangerous Goods List and in the Index of the IMDG Code by the letters **P** or **PP**. Substances which may be considered harmful to the marine environment only if they contain certain quantities of marine pollutants or severe marine pollutants are identified by the symbol ● in the Dangerous Goods List and in the Index.

The IMDG Code that was adopted by resolution A.716(17) and amended by Amendments 27 to 30 was recommended to Governments for adoption or for use as the basis for national regulations in pursuance of their obligations under regulation VII/1.4 of the 1974 SOLAS Convention, as amended, and regulation 1(3) of Annex III of MARPOL 73/78. This edition of the IMDG Code, including Amendment 31-02, is no longer recommendatory; the majority of the Code is now mandatory. Observance of the Code harmonizes the practices and procedures followed in the carriage of dangerous goods by sea and ensures compliance with the mandatory provisions of the SOLAS Convention and of Annex III of MARPOL 73/78.

The Code, which sets out in detail the requirements applicable to each individual substance, material or article, has undergone many changes, both in layout and content, in order to keep pace with the expansion and progress of industry. IMO's Maritime Safety Committee (MSC) is authorized by the Organization's Assembly to adopt amendments to the Code, thus enabling IMO to respond promptly to developments in transport.

The MSC at its seventy-fifth session agreed that, in order to facilitate the multimodal transport of dangerous goods, the provisions of the IMDG Code, 2002, may be applied from 1 January 2003 on a voluntary basis, pending their official entry into force on 1 January 2004 without any transitional period. This is described in resolution MSC.122(75) and the Preamble to this Code.

The IMDG Code, 2002, has, amongst others, undergone significant changes, especially in the context of the language of the Code: the words "shall", "should" and "may", when used in the Code, mean that the relevant provisions are "mandatory", "recommendatory" and "optional", respectively.

New definitions have been incorporated into chapter 1.2 to define terms used in the substantially revised part 6, which now has additional provisions on multi-element gas containers. Chapter 1.3, which is on training requirements, has new tables that recommend training needs for shore-side personnel involved in the transport of dangerous goods under the IMDG Code and is function-specific.

This new edition of the Code incorporates a number of new entries in the Dangerous Goods List and the Limited Quantity amounts, where amended, are generally more generous than in earlier Amendments. Column 15 of the Dangerous Goods List is completely revised; it now incorporates the EmS numbers consistent with the revised *Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS Guide)*. Packing Instruction 200 has been extensively revised and has more explanatory text to make the provisions user-friendly.

The IMDG Code is also available as a fully searchable database on CD-ROM (including the items within its Supplement). Intranet and Internet (subscription) versions will be available early in 2003. For more information, please visit the IMO Publishing Service website at [www.imo.org](http://www.imo.org) to see a live demonstration of the CD-ROM version and obtain details of how online subscription to the IMDG Code will work. The IMO website will also include any files that show errata or corrigenda to this edition of the IMDG Code.

## Preamble

- 1 Transport of dangerous goods by sea is regulated in order reasonably to prevent injury to persons or damage to ships and their cargoes. Transport of marine pollutants is primarily regulated to prevent harm to the marine environment. The objective of the IMDG Code is to enhance the safe transport of dangerous goods while facilitating the free unrestricted movement of such goods.
- 2 Over the years, many maritime countries have taken measures to regulate the transport of dangerous goods by sea. The various regulations, codes and practices, however, differed in their framework and, in particular, in the identification and labelling of such goods. Both the terminology used and the provisions for packaging and stowage varied from country to country and created difficulties for all directly or indirectly concerned with the transport of dangerous goods by sea.
- 3 The need for international regulation of the transport of dangerous goods by sea was recognized by the 1929 International Conference on Safety of Life at Sea (SOLAS), which recommended that rules on the subject shall have international effect. The classification of dangerous goods and certain general provisions concerning their transport in ships were adopted by the 1948 SOLAS Conference. This Conference also recommended further study with the object of developing international regulations.
- 4 Meanwhile, the Economic and Social Council of the United Nations had appointed an ad hoc Committee of Experts on the Transport of Dangerous Goods (UN Committee of Experts), which had been actively considering the international aspect of the transport of dangerous goods by all modes of transport. This committee completed a report in 1956 dealing with classification, listing and labelling of dangerous goods and with the transport documents required for such goods. This report, with subsequent modifications, offered a general framework to which existing regulations could be harmonized and within which they could be further developed. The primary goal being world-wide uniformity for regulations concerning the transport of dangerous goods by sea as well as other modes of transport.
- 5 As a further step towards meeting the need for international rules governing the transport of dangerous goods in ships, the 1960 SOLAS Conference, in addition to laying down a general framework of provisions in chapter VII of the SOLAS Convention, invited IMO (Recommendation 56) to undertake a study with a view to establishing a unified international code for the transport of dangerous goods by sea. This study would be pursued in co-operation with the UN Committee of Experts and shall take account of existing maritime practices and procedures. The Conference further recommended that the unified code be prepared by IMO and that it be adopted by the Governments that were Parties to the 1960 Convention.
- 6 To implement Recommendation 56, IMO's Maritime Safety Committee (MSC) appointed a working group drawn from those countries having considerable experience in the transport of dangerous goods by sea. Preliminary drafts for each class of substances, materials and articles were subsequently brought under close scrutiny by the working group to take into account throughout the practices and procedures of a number of maritime countries in order to make the Code as widely acceptable as possible. This new International Maritime Dangerous Goods (IMDG) Code was approved by the MSC and recommended to Governments by the Assembly of IMO in 1965.
- 7 The provisions in chapter VII of the SOLAS Convention are supported by special provisions in chapter II-2 for the safe construction of ships carrying dangerous goods in excess of the limited quantity provisions in the IMDG Code. Regulation II-2/19 applies to passenger ships and to cargo ships constructed on or after 1 July 2002. For passenger ships and cargo ships of 500 gross tons or over constructed on or after 1 September 1984 but before 1 July 2002, and for cargo ships of less than 500 gross tons constructed on or after 1 February 1992 but before 1 July 2002, the requirements of regulation II-2/54 of SOLAS, 1974, as amended by resolutions MSC.1(XLV), MSC.6(48), MSC.13(57), MSC.22(59), MSC.24(60), MSC.27(61), MSC.31(63) and MSC.57(67), apply (see II-2/1.2).
- 8 During another SOLAS Conference held in 1974, chapter VII of the Convention remained essentially unchanged. Since that date, revisions and amendments to chapter VII adopted by the MSC entered into force in 1986, 1992, 1994, 1996 and 2001. Although invoked by a footnote reference in regulation 1 of chapter VII, the IMDG Code itself had only recommendatory status. Other amendments to chapter VII will enter into force from 1 January 2004 to make the IMDG Code mandatory (see paragraph 13).
- 9 All the substances, material and articles set out by class in a series of individual schedules and all the supporting recommendations prepared by the UN Committee of Experts were regularly reviewed by the MSC and its subsidiary bodies for inclusion in the IMDG Code with necessary modifications for the sea mode. The questions of excluding goods not in fact transported by sea, of including further goods, or of transferring goods between

classes, as necessary, of prescribing suitable packagings, of marking, labelling and placarding, of documentation and of transport in portable tanks have been dealt with in continuous consultation with the UN Committee of Experts.

- 10 At the International Conference on Marine Pollution, 1973, the need was recognized to preserve the marine environment. It was further recognized that negligent or accidental release of marine pollutants transported by sea in packaged form shall be minimized. Consequently, provisions were established and adopted by the Conference, and are contained in Annex III of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The Marine Environment Protection Committee (MEPC) decided in 1985 that Annex III shall be implemented through the IMDG Code. This decision was also endorsed by the MSC in 1985. Amendments agreed by the MEPC and MSC to Annex III to MARPOL 73/78 entered into force in 1994 and 1996.
- 11 The UN Committee of Experts has continued to meet until the present day and its published "Recommendations on the Transport of Dangerous Goods" ("Orange Book") are updated biennially. In December 1996, the Recommendations were first published in a reformatted presentation as UN "Model Regulations". In 1996, the MSC agreed that the IMDG Code shall be reformatted consistent with the format of the UN Model Regulations. The consistency in format of the UN Model Regulations, the IMDG Code and other dangerous goods transport regulations is intended to enhance user-friendliness, compliance with the regulations, and the safe transport of dangerous goods.
- 12 The reformatted IMDG Code lays down basic principles. Detailed recommendations for individual substances, material and articles and for good practice are included in a "Dangerous Goods List". This list shall be consulted when attempting to locate relevant transport information for any substance, material or article.
- 13 At its seventy-fifth session in May 2002, the MSC confirmed its earlier decision to make the IMDG Code mandatory in international law with the issue of Amendment 31. This second revision in reformatted style will enter into force from 1 January 2004 and will be mandatory without any transitional period. However, Governments may apply this Amendment in whole or in part on a voluntary basis from 1 January 2003. Accordingly, the MSC adopted resolution MSC.123(75) with the appropriate amendments to chapters VI and VII of SOLAS 74, as amended, denoting the changed status of the IMDG Code.
- 14 In order to keep the Code up to date from the maritime transport operational aspect, it will be necessary for the MSC to continue to take into account technological developments, as well as changes to chemical classifications and the related consignment provisions that primarily concern the shipper/consignor coming from the UN Committee of Experts. The two-year periodicity of amendments to the UN Model Regulations, which it is expected will continue, will thus provide the source of most future updating of the IMDG Code, also on a two-year basis.
- 15 The UN Committee of Experts and the MSC will also have regard to future implications for transport – and transport by sea in particular – arising from any acceptance by the UN Conference on Environmental Development (UNCED) of common criteria for the classification of chemicals for all human purposes on the basis of a Global Harmonization System (GHS).
- 16 Attention is drawn to IMO document FAL.6/Circ.9/Rev.1, a list of existing publications relevant to areas and topics relating to ship/port interface matters.
- 17 Advice on emergency procedures and for initial management of chemical poisoning and diagnosis that may be used in conjunction with the IMDG Code is published separately in "The EmS Guide: Emergency Response Procedures for Ships Carrying Dangerous Goods" (see MSC/Circ.1025) and in the "Medical First Aid Guide for Use in Accidents Involving Dangerous Goods" (see MSC/Circ.857 and DSC 3/15/Add.2), respectively.
- 18 In addition, according to Part D of chapter VII of the SOLAS Convention, a ship transporting INF cargo, as defined in regulation VII/14.2, shall comply with the requirements of the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on board Ships (INF Code).

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PART 3 – DANGEROUS GOODS LIST AND LIMITED QUANTITIES EXCEPTIONS

APPENDIX A

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# PART 1

GENERAL PROVISIONS,  
DEFINITIONS AND TRAINING





# Chapter 1.1

## General provisions

### 1.1.0 Introductory note

It should be noted that other international and national modal regulations exist and that those regulations may recognize all or part of the provisions of this Code. In addition, port authorities and other bodies and organizations should recognize the Code and may use it as a basis for their storage and handling bye-laws within loading and discharge areas.

### 1.1.1 Application and implementation of the Code

**1.1.1.1** The provisions contained in this Code are applicable to all ships to which the International Convention for the Safety of Life at Sea, 1974 (SOLAS 74), as amended, applies and which are carrying dangerous goods as defined in regulation 1 of part A of chapter VII of that Convention.

**1.1.1.2** The provisions of regulation II-2/19 of that Convention apply to passenger ships and to cargo ships constructed on or after 1 July 2002.

For:

- .1 a passenger ship constructed on or after 1 September 1984 but before 1 July 2002; or
- .2 a cargo ship of 500 gross tons or over constructed on or after 1 September 1984 but before 1 July 2002; or
- .3 a cargo ship of less than 500 gross tons constructed on or after 1 February 1992 but before 1 July 2002, the requirements of regulation II-2/54 of SOLAS, 1974, as amended by resolutions MSC.1(XLV), MSC.6(48), MSC.13(57), MSC.22(59), MSC.24(60), MSC.27(61), MSC.31(63) and MSC.57(67), apply (see II-2/1.2).

For cargo ships of less than 500 gross tons constructed on or after 1 September 1984 and before 1 February 1992, it is recommended that Contracting Governments extend such application to these cargo ships as far as possible.

**1.1.1.3** All ships, irrespective of type and size, carrying substances, materials or articles identified in this Code as marine pollutants are subject to the provisions of this Code.

**1.1.1.4** In certain parts of this Code, a particular action is prescribed, but the responsibility for carrying out the action is not specifically assigned to any particular person. Such responsibility may vary according to the laws and customs of different countries and the international conventions into which these countries have entered. For the purpose of this Code, it is not necessary to make this assignment, but only to identify the action itself. It remains the prerogative of each Government to assign this responsibility.

**1.1.1.5** Although this Code is legally treated as a mandatory instrument under chapter VII of SOLAS 74, as amended, the following provisions of the Code remain recommendatory:

- .1 chapter 1.3 (Training);
- .2 section 2.1.0 of chapter 2.1 (class 1 – explosives, Introductory notes);
- .3 section 2.3.3 of chapter 2.3 (Determination of flashpoint);
- .4 columns (15) and (17) of the Dangerous Goods List in chapter 3.2;
- .5 chapter 3.5 (Transport schedules for class 7 – radioactive material);
- .6 section 5.4.5 of chapter 5.4 (Multimodal Dangerous Goods Form), insofar as the layout of the form is concerned;
- .7 chapter 7.3 (Special provisions in the event of an incident and fire precautions involving dangerous goods only); and
- .8 appendix B.