

International Maritime Dangerous Goods (IMDG) Code



The International Maritime Dangerous Goods (IMDG) Code was developed as a uniform international code for the transport of dangerous goods by sea covering such matters as packing, container traffic and stowage, with particular reference to the segregation of incompatible substances.

Development of the IMDG Code

The development of the IMDG Code dates back to the 1960 Safety of Life at Sea Conference, which recommended that Governments should adopt a uniform international code for the transport of dangerous goods by sea to supplement the regulations contained in the 1960 International Convention for the Safety of Life at Sea (SOLAS).

A resolution adopted by the 1960 Conference said the proposed code should cover such matters as packing, container traffic and stowage, with particular reference to the segregation of incompatible substances.

A working group of IMO's Maritime Safety Committee began preparing the Code in 1961, in close co-operation with the United Nations Committee of Experts on the Transport of Dangerous Goods, which in a 1956 report had established minimum requirements for the transport of dangerous goods by all modes of transport.

Since its adoption by the fourth IMO Assembly in 1965, the IMDG Code has undergone many changes, both in appearance and content to keep pace with the ever-changing needs of industry. Amendments which do not affect the principles upon which the Code is based may be adopted by the MSC, allowing IMO to respond to transport developments in reasonable time.

Amendments to the IMDG Code originate from two sources; proposals submitted directly to IMO by Member States and amendments required to take account of changes to the United Nations Recommendations on the Transport of Dangerous Goods which sets the basic requirements for all the transport modes.

Amendments to the provisions of the United Nations Recommendations are made on a two yearly cycle and approximately two years after their adoption, they are adopted by the authorities responsible for regulating the various transport modes. In that way a basic set of requirements applicable to all modes of transport is established and implemented, thus ensuring that difficulties are not encountered at inter-modal interfaces.

IMDG Code classes

For the purposes of this Code, dangerous goods are classified in different classes, to subdivide a number of these classes and to define and describe characteristics and properties of the substances, material and articles which would fall within each class or division. General provisions for each class or division are given. Individual dangerous goods are listed in the Dangerous Goods List, with the class and any specific requirements.

In accordance with the criteria for the selection of marine pollutants for the purposes of 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), a number of

dangerous substances in the various classes have also been identified as substances harmful to the marine environment (MARINE POLLUTANTS).

Responsibilities

The classification shall be made by the shipper/consignor or by the appropriate competent authority where specified in this Code.

Classes, divisions, packing groups

Substances (including mixtures and solutions) and articles subject to the provisions of this Code are assigned to one of the classes 1-9 according to the hazard or the most predominant of the hazards they present. Some of these classes are subdivided into divisions. These classes or divisions are as listed below:

Class 1: Explosives

Division 1.1: substances and articles which have a mass explosion hazard

Division 1.2: substances and articles which have a projection hazard but not a mass explosion hazard

Division 1.3: substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard

Division 1.4: substances and articles which present no significant hazard

Division 1.5: very insensitive substances which have a mass explosion hazard

Division 1.6: extremely insensitive articles which do not have a mass explosion hazard

Class 2: Gases

Class 2.1: flammable gases

Class 2.2: non-flammable, non-toxic gases

Class 2.3: toxic gases

Class 3: Flammable liquids

Class 4: Flammable solids; substances liable to spontaneous combustion; substances which, in contact with water, emit flammable gases

Class 4.1: flammable solids, self-reactive substances and desensitized explosives

Class 4.2: substances liable to spontaneous combustion

Class 4.3: substances which, in contact with water, emit flammable gases

Class 5: Oxidizing substances and organic peroxides

Class 5.1: oxidizing substances

Class 5.2: organic peroxides

Class 6: Toxic and infectious substances

Class 6.1: toxic substances

Class 6.2: infectious substances

Class 7: Radioactive material

Class 8: Corrosive substances

Class 9: Miscellaneous dangerous substances and articles

The numerical order of the classes and divisions is not that of the degree of danger.

Marine pollutants and wastes

Many of the substances assigned to classes 1 to 9 are deemed as being marine pollutants. Certain marine pollutants have an extreme pollution potential and are identified as severe marine pollutants.

IMDG Code made mandatory

Amendments to [SOLAS](#) chapter VII (Carriage of Dangerous Goods) adopted in May 2002 make the IMDG Code mandatory from 1 January 2004.

Also in May 2002, IMO adopted the IMDG Code in a mandatory form - known as Amendment 31.

However, the provisions of the following parts of the Code will remain recommendatory:

- chapter 1.3 (Training);
- chapter 2.1 (Explosives, Introductory Notes 1 to 4 only);
- chapter 2.3, section 2.3.3 (Determination of flashpoint only);
- chapter 3.2 (columns 15 and 17 of the Dangerous Goods List only);
- chapter 3.5 (Transport schedule for Class 7 radioactive material only),
- chapter 5.4, section 5.4.5 (Multimodal dangerous goods form), insofar as layout of the form is concerned;
- chapter 7.3 (Special requirements in the event of an incident and fire precautions involving dangerous goods only).

In practice, this means that from the legal point of view, the whole of the IMDG Code is made mandatory, but provisions of recommendatory nature are editorially expressed in the Code (e.g. using the word "should" instead of "shall") to clarify their status.

The mandatory IMDG Code incorporates certain changes relating to specific products, as well as relevant elements of the amendments to the UN Recommendations on the Transport of Dangerous Goods, Model Regulations adopted by the UN Committee of Experts on the Transport of Dangerous Goods at its twenty-first session in Geneva from 4 to 13 December 2000.

The amendments making the IMDG Code mandatory entered into force on 1 January 2004.

Buy the IMDG Code



The IMDG Code (Latest edition - Amendment 31) can be bought in hard copy and electronic format from the [IMO Publications section](#).

Also available is the IMDG Code Supplement, containing several related texts including a new revised EMS Guide, and the mandatory INF Code.

Also available: [IMDG Code on CD-ROM version 6.0 \(2002\)](#)

What's in it

The Code lays down basic principles; detailed recommendations for individual substances, materials and articles, and a number of recommendations for good operational practice including advice on terminology, packing, labelling, stowage, segregation and handling, and emergency response action.

The two-volume Code is divided into seven parts:

Volume 1 (parts 1, 2 and 4-7 of the Code) contains sections on:

- general provisions, definitions, training
- classification
- packing and tank provisions
- consignment procedures
- construction and testing of packagings, IBCs, large packagings, portable tanks and road tank vehicles
- transport operations

Volume 2 contains:

the Dangerous Goods List (equivalent to the schedules in previous editions of the Code), presented in tabular format

- limited quantities exceptions
- the Index
- appendices

The Supplement contains the following texts related to the IMDG Code:

- EMS Guide
- Medical First Aid Guide
- Reporting Procedures
- Packing Cargo Transport Units
- Safe Use of Pesticides
- INF Code