

# ZEYTİNBURNU PORT DANGEROUS CARGO HANDLING GUIDE



PREPARATION DATE: 29/04/2022

OSMAN KITAY Port Manager

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#### **REVISION PAGE**

				Revision Issuer	
Sequ ence No	Revision No	Content of the Revision	Revision Date	Name Surname	Signature
1	001	First publication within the scope of the Implementing Instruction on the Dangerous Cargo Handling Guide dated 20.04.2022 and numbered 281879	First Release 29/04/2022	Feridun Ulker IMDG TMGD	FULL
2	002	Change of organization	30/06/2022	Osman KITAY	AA
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- 9- Emergency Management Scheme
- 10- Dangerous Goods Handbook
- 11- Leak areas and equipment for CTU and Packages, input/output drawings
- 12- Inventory of Port Service Vessels
- 13- Maritime coordinates of Port Authority administrative boundaries, moorings and guide captain landing/boarding points
- 14- Emergency response equipment against marine pollution in the coastal facility
- 15- Personal protective equipment (PPE) usage map
- 16- Dangerous cargo incidents notification form
- 17- Control results notification form for dangerous goods handling units (CTUs)
- 18- Other attachments needed
- 19- Dangerous Goods Handling Guide Additional Load Notification (Where required)

#### **ABBREVIATIONS**

SOLAS: (safety of life at sea) convention: International Convention for the Safety of Life at Sea

MARPOL: (International Convention for the Prevention of Pollution from Ships (Marine Pollution)):

**IMSBC Code**: (International Maritime Solid Bulk Cargoes Code): International Maritime Solid Bulk Cargoes Code

**IBC Code**: (International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk)

**IGC Code**: (The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk)

**CTU:** (Code of Practice for Packing of Cargo Transport Units): Principles of practice for the packaging of cargo transport units

**IMO:** (International Maritime Organization): International Maritime Organization.

**IMDG Code: (International Maritime** Dangerous Goods): International Code for Dangerous Goods Transported by Sea.

**UN No: (United Nations): The** unique number given by the United Nations for each chemical material that can be considered dangerous. IMDG code dangerous goods list 1. It is the four-digit number in its column.

#### **DEFINITIONS AND ABBREVIATIONS:**

- a) Buyer: Real and legal persons who will receive the dangerous cargo according to the contract of carriage,
- b) Packaging: The transport container in which the dangerous cargo is placed, as defined in Section 6 of the IMDG Code,
- c) Packaging Group: Means a group in which certain substances are assigned for packaging purposes according to their degree of danger. There are 3 kinds of packaging groups.
- d) Packer: The natural and legal persons who place dangerous cargoes in large packaging containers and make the packages ready for transportation when necessary, who pack dangerous cargoes or change the packages and labels of these goods, who label them for the purpose of transportation, who carry out these operations with the sender or his instructions, and the land and coastal facility personnel who actually carry out this process,
- e) Ministry: Ministry of Transport and Infrastructure,
- f) Unloader: Removing the container loaded with dangerous cargo, multi-element gas container, tank-container, portable tank from a vehicle; packed That unloads dangerous cargoes, small containers and portable tanks from a vehicle or container; An entity that unloads dangerous cargoes from a tank (tanker, detachable tank, portable tank or tank container) from a scuba gas tanker, MEMU or multi-element gas container, a vehicle or container carrying bulk cargo."
- g) Handling: Loading, discharged, displaced, stacked, separated from ships without changing the essential characteristics of the cargo and degassing and/or cleaning in the cargo transportation unit and similar operations for transportation,
- h) Handler: Real and legal persons who carry out the handling process,
- i) Fumigation: The process of giving a fumigant acting as a gas to a closed environment at a certain temperature in order to destroy harmful organisms in a certain amount and keeping it in the environment for a certain period of time,
- j) Gas measurement: The gases determined by the Administration within the scope of the relevant regulation and the quantities required to be determined by the Administration in the load carrying units and / or closed areas are determined by the authorized organizations and persons by using special devices and apparatus,
- k) Degassing: The works and operations carried out with active or passive ventilation in the event that the load carrying units that are within the scope of fumigation and which are not covered by fumigation but which may be harmful to life, property and the environment are determined to be above the values in the relevant directive as a result of the risk assessment,
- 1) Ship: Any boat, regardless of its name, tonnage and purpose of use, which can sail in the sea with a device other than a rowing,
- m) Ship Relative: Equipping, operating, tenant, captain or agents and real or legal persons authorized to represent the ship,
- n) Sender: Real and legal persons who send dangerous cargoes on their own behalf or on behalf of a third party or who are specified as senders in the contract of carriage,
- Safety Data Sheet (GFB): A document containing detailed information on the characteristics of dangerous cargoes, safety measures to be taken according to the hazard characteristics in the facilities where they are located, necessary information for the protection of human health and the environment from the negative effects of dangerous cargoes,
- p) IBC Code: International Code for the Construction and Equipment of Ships Carrying Hazardous Chemicals in Bulk,
- q) IGC Code: International Code on the Construction and Equipment of Ships Carrying Bulk Liquefied Gases,

- r) IMDG Code: It is an accepted international guide for the safe shipment and shipment of dangerous goods by sea.
- s) IMO: International Maritime Organization,
- t) IMSBC Code: International Maritime Solid Bulk Cargo Code,
- u) ISPS Code: International Ship and Port Facility Security Code,
- v) Administration: General Directorate of Shipping,
- w) Captain: The person who dispatches and manages the ship,
- x) Shore facility: A port, dock, pier, berthing place, fuel oil, liquefied gas or chemical pipeline buoy or platform, including storage areas, where ships or marine vessels can safely exchange cargo or shelter,
- y) Coastal facility concerned: Real persons or legal entities operating coastal facilities with permission from the Administration and managers and responsible persons of coastal facilities,
- z) Container: means a cargo transport unit certified in accordance with the standards applicable under the International Convention for Safe Containers (CSC Convention), m) Shore facility: a dock, pier, buoy plant, dolfen, fuel oil or liquefied gas pipeline buoy or platform, the boundaries of which are determined by the Ministry, where ships can safely exchange and transport cargo or accommodate,
- aa) MARPOL 73/78: International Convention for the Prevention of Pollution of the Seas by Ships,
- bb) Final buyer: The buyer who physically receives the cargo discharged from the ship at the shore facility, or the client in question if the person who physically receives the cargo acts as a proxy on behalf of another natural / legal person during the purchase, or the buyer specified in the contract of carriage if the transportation is carried out under a contract of carriage,
- cc) Packaging & Packaging: One bowl or multiple bowls means the materials or other components required for the hoppers to perform containment and other safety functions.
- dd) Warm work: performed by persons certified by the relevant authority; the use of open fires and flames, electrical appliances or hot rivets, grinding, soldering, burning, cutting, welding or any work involving heat or producing sparks,
- ee) Classification: It is the distinction made by the International Maritime Organization taking into account the chemical properties of dangerous cargoes.
- ff) SOLAS: The International Convention for the Safety of Life at Sea of 1974,
- gg) Carrier: The actual carrier, broker, ship owner, transport works organizer, transportation broker, ship agent who receives, bids, accepts the offer for the transportation of all kinds of dangerous cargo on their own behalf or on behalf of third parties, and the real and legal persons who carry out the transportation of dangerous cargo by road or rail with or without a contract,
- hh) Hazard Label: Defines the label containing letters, numbers and shapes that express the characteristics of the cargoes used in the transportation of dangerous cargo, such as class, hazard degree and content.
- ii) Danger Sign: It is the plate that must be kept on the container for the purpose of informing according to the characteristics of the dangerous cargo in the container.
- jj) Hazardous waste: Parts, solutions, mixtures and used packaging and cargo transport units of cargo or dangerous cargo or packaging and cargo handling units carrying dangerous cargo, which are classified as specified in the Basel Convention and whose transport class and conditions are determined within the scope of SOLAS, which are not directly intended for use, or of packaging and cargo handling units carrying dangerous cargo, transported for disposal by reprocessing, disposal, incineration or other means,

#### kk) Dangerous cargo:

- 1. Petroleum and petroleum products included in Annex I, Annex I, Annex 73/78 of the International Convention for the Prevention of Pollution of the Seas by Ships (MARPOL),
- 2. Packaged transported articles and objects given in Section 3 of the IMDG Code,
- 3. Bulk cargoes marked "B" and "A and B" in the group box in the characteristic table of the

- loads given in Annex 1 of the IMSBC Code,
- 4. Liquid substances marked "S" or "S/P" in column "d" of the table given in Chapter 17 of the IBC Code titled "hazards",
- 5. Gaseous substances given in Chapter 19 of the IGC Code,
- 11) TMGD: Dangerous cargo safety consultants authorized by the Ministry,
- mm) TYUB: The Coastal Facility Dangerous Cargo Conformity Certificate issued by the Administration and required to be obtained by coastal facilities engaged in the handling of dangerous goods in packaged or bulk form,
- nn) UN number: the four-digit identification number of dangerous goods or parts from United Nations sample regulations,
- oo) Transportation Electronic Transportation Document System (U-ETES): The system in which the real and legal persons operating in accordance with this Regulation keep the data determined by the Ministry regarding their activities and are / may be open to sharing data with the relevant public institutions and organizations when necessary."
- pp) New coastal facility: Within the scope of the "Regulation on Procedures and Principles for the Issuance of Operation Permit Certificate to Coastal Facilities" published in the Official Gazette dated 18/2/2017 No. 26438, the coastal facility that has not received a coastal facility operation permit / coastal facility temporary operation permit certificate
- qq) Regulation: The Regulation on the Transportation of Dangerous Cargo by Sea published in the Official Gazette dated 14.11.2021 and numbered 31659,
- rr) Shipper: Real or legal persons who, in accordance with the instructions of the shipper, load dangerous cargoes and cargoes that pose a danger to the safety of loading on the ship and the sea vessel, vehicle or cargo transport unit and label, license plate, handle, stack and unload the cargoes, including dangerous cargoes inside the ship or cargo transport unit,
- ss) Loading safety: Safe fastening and stacking of the cargo transport unit or cargo loaded in the ship hold or ship deck and safe fastening and stacking of the cargo to be loaded on the cargo transport unit,
- tt) Shipper: The natural or legal person specified as "shipper" in the bill of lading, sea transport bill or multimodal transport document and the natural or legal person on whose behalf or on whose behalf a contract of carriage is concluded with a maritime transport company,
- uu) Cargo Representative: The sender, receiver, representative or organizer of the transport of the dangerous cargo,
  - a) Cargo transport unit (CTU): Designed and manufactured for the transport of dangerous cargo, either packaged or in bulk; refers to road trailer, semi-trailer and tanker, portable tank and multielement gas container, railway wagon and tank wagon, container and tank container.

#### **PRESENTATION**

#### 1. ENTRANCE

The purpose of this guide is; To ensure that the dangerous cargo transportation activities to be carried out by sea are carried out in a way that has a minimum negative impact on the economic, serial, safe, quality environment and in accordance with other transportation activities and that the dangerous cargo supply and transfer services are carried out in a safer way at the port of Zeyport .

#### 1.1. General information about the property

**ZEYPORT ZEYTINBURNU LIMAN OSANLERI SAN. VE TIC. A.Ş.** port facility is a port that serves as a transit point where operations such as filling, packing, sending, transporting, receiving, using or storing dangerous cargoes are not carried out, and where replenishment services such as loading and / or unloading dangerous cargoes coming to the port are carried out. The port is not in the position of filling, packing, shipping, shipping, receiving, unloading and storing dangerous cargo. The main activity of the port in relation to dangerous cargo is the transfer of dangerous cargoes. Dangerous cargoes transferred at the port consist of Ro-Ro transportation.

Within the framework of the Principles Regarding Regular Voyages in the Zeyport Cabotage Line, within the scope of the "Regular Voyage Permit" issued by the Ministry of Transport, Maritime Affairs and Communications, tankers arriving at the Port with Ro-Ro ships, which are prohibited from passing through the Bosphorus bridges , especially flammable gases and liquids belonging to the portable Class 2 and Class 3, with class 8 corrosive and class 9 environmentally hazardous cargo content. is the port that provides replenishment services in the position of a transit point for being unloaded from the ship and sent to the receiver and arriving by land and boarding the Ro-Ro vessel.

Vehicles arriving on the vehicle by ships are not unloaded and stored in the port. Vehicles disembarking from ships docking at the port are sometimes kept in port for a short time. One of the reasons for this waiting is that the vehicles carrying dangerous cargo, which will get off the ship and pass from the port to the highway, are waiting for the exit times to the traffic in order to be able to use the highway on the routes determined by the IMM Transportation Coordination Directorate (UKOME) or other Public Administrations (Highways).

During the entry and presence of dangerous cargoes into the port area, they must be checked to ensure the general safety and security of the area, the safeguarding of cargoes, the safety of all persons in or around the port area and the protection of the environment.

This guide is limited to the unloading of dangerous cargoes transferred at the port, loading them on board and dangerous cargoes kept in the port area for a short time. In the event of a change in the variety of dangerous cargoes and/or a change in the replenishment services of

dangerous cargoes within the port, the guidance is revised in the event that situations such as filling, packing, sending, transporting, receiving, using or storing dangerous cargoesare added.

An important prerequisite for the safe transfer of hazardous loads is that they are correctly identified, stored, packaged, marked, affected, specified and documented. This applies whether the activity takes place in the port area or away from the port area.

It is very important that in the general transfer chain all measures are taken by those responsible, that all relevant information is communicated to those involved in the transfer chain and to the final recipient. Attention should be paid to the conditions that may differ for different forms of transfer.

The safe transfer of dangerous goods is based on the correct and precise application of the relevant regulations and depends on the acceptance of all persons concerned with the risks in this context and their complete and detailed understanding of the regulations. This can be achieved by training and retraining the persons concerned in a correct and planned manner.

This Guide has been published for the first time to ensure the safe transfer of dangerous cargoes in the port area and to meet legal requirements and safety measures.

#### 1.2. Property information form

General information about the property is given in the Facility Information Form below.

	- III					
1	Facility operator name/title	ZEYPORT ZEYTİNBURNU LIMAN OSANLERI SAN. VE TİC. Inc.				
2	Contact details of the property operator (address, telephone, fax, e-mail and web page)	Address: Sahil Yolu Kennedy Caddesi Liman Sokak Zeytinburnu/İSTANBUL Phone:+90 212 679 90 01/02/03 Fax: +90 212 679 90 00 e-mail: operation@zeyport.net Web: http://www.zeyport.net/				
3	Name of the facility	ZEYPORT ZEYTİNBUR	RNU LIMAN OSANLERI SAN. VE TİC	. Inc.		
4	The province where the facility is located	ISTANBUL				
5	The property's contact details (address, telephone, fax, email and web page)	Address: Sahil Yolu Kennedy Caddesi Liman Sokak Zeytinburnu/İSTANBUL Phone:+90 212 679 90 01/02/03 Fax: +90 212 679 90 00 e-mail: operation@zeyport.net Web: http://www.zeyport.net/				
6	Geographical area where the property is located	MARMARA REGION				
7	Port Authority where the facility is located and contact details	ISTANBUL PORT PRESIDENCY No:33 Karakoy, Beyoglu /ISTANBUL Phone: +90 212 249 21 97-98 Fax: +90 212 292 99 19 e-mail: istanbulliman@udhb.gov.tr				
8	The Mayor where the facility is located and contact details	ZEYTİNBURNU MUNICIPALITY PRESIDENCY Address: Kazlıçeşme Mah. Abay Cad. No: 156 Zeytinburnu/İSTANBUL Phone: (0212) 413 11 11 Fax: (0212) 413 12 12				
9	Name of the Free Zone or Organized Industrial Zone where the facility is located	-	, ,			
10	Validity date of Coastal Facility Operation Permit / Temporary Operation Permit certificate	Document No: 2704-	-D3 / Validity Period : 29.03.2024			
11	Facility Operating Status (X)	Own Load and additional 3rd Party ()  Own Burden ()  3rd Party (X)				
12	Name and surname of the property manager, contact details (telephone, fax, e-mail)	Name Surname: OSMAN KITAY Address: Sahil Yolu Kennedy Caddesi Liman Sokak Zeytinburnu/İSTANBUL Phone:+90 212 679 90 01(Pbx) Fav: +90 212 679 90 00				
13	Name and surname of the facility's dangerous goods operations officer, contact details (telephone, fax, e-mail)	Name Surname: Alper ORTAKUYU Phone:+90 212 679 90 01(Pbx) / 125 Phone:+90 212 679 90 09				

] !		Makila, 100 526 542 40 52
		Mobile: +90 536 543 48 53 Fax: +90 212 679 90 00
		e-mail : operation@zeyport.net
		Vhf : Ch.16
14	Name and surname of the Facility's Dangerous Cargo Safety Consultant, contact information (telephone, fax, email)	Name Surname: Feridun ÜLKER RID-IMDG and ADR TMGD Phone:+90(537)027-9306 E-mail:feridunulker@anadolutmgd.com
15	Property's sea coordinates	40 58'50" N, 028 53'45" M
16	Types of dangerous goods handled at the plant (MARPOL Annex-I, IMDG Code, IBC Code, IGC Code, IMSBC Code, Grain Code , TDC Code covered loads and asphalt/bitumen and scrap loads)	Class 2, Class 3, Class 4.1, 4.2, Class 5.1, 5.2, Class 6.1, Class 8 and Class 9
17	Dangerous cargoes handled at the plant (IMDG Code from the types of cargo in Article 16) other loads will be written separately. Additional cargo request Annex-1 form and the connected port will be forwarded to the presidency. Will be added to TYER when deemed appropriate)	
18	Subject to IMDG Code, classes for handled cargo	
19	IMSBC Code for handled cargoes groups in the characteristic table	
20	Types of ships that can dock at the facility	FERRY/PASSENGER SHIP, RO-RO SHIP, GENERAL CARGO SHIP, YACHT – MEGA YACHT
21	Distance of the property from the main road	THE PLANT IS FINISHED ON THE HIGHWAY
20	Distance of the property to the Railway or distance to the railway (kilometers) connection (Yes/None)	DISTANCE 0.5 KM, NO CONNECTION
21	Name of the nearest airport and distance from the property	Ataturk Airport 11 Km

23	Whether scrap handling is carried out at the plant		No				
24 Is there a border gate? (Yes/No) Yes							
25	Is there a bonded (Yes/No)	d field?	Yes (Par	Yes (Partial)			
26	Load handling eq	quipment and		Mobile Crane: 15 MT, Forklift :5 MT, Cordless stacker : 1,2 MT Compassed Crane : 1 MT, Pallet Truck : 0,6 MT			
27	Storage tank cap	acity (m3)	No Stora	age Tank			
28	Outdoor storage	(m2)			ea Total: )46,018 r ier Included: 18,70		
29	Semi-closed stor	age area (m2)	No				
30	Indoor storage a	rea (m2)	500 m2				
31	Designated fumigation and/or fumigationclearance area (m2)  Aramping area is not available.						
Name/title of guidance and demarcation services provider contact details  Mah. Kemankeş Cad. No:6  Fax: 0212 252 17 87				d. No:63 Beyoğlu/ 7		emankeş Karamustafa Paşa 2 334 45 00 (10 hat)	
E-mail: info@kiyiemniyeti.gov.tr  3 Has a Security Plan been of3 established?  Yes, 12.01.2015							
1 34 1 regulated cenarately according 1					FACILITY EXEMPTI ENT NO: 34-AKTME		
35	Features of the a	reas such as do	ocks/piers e	etc.			
	Dock/Pier	No	Height (meters	Width (meters	Min. Water depth	Max. Water depth	Largest ship tonnage to dock
			,	,	(meters)	(meters)	(DWT or GRT)
		Pier No. 1					
	1		118	15	6,70	7,0	
		Pier 2					
2 112 15				15	4,50	6,40	

Load handling capacity of the plant (Tons/Year, Teu/Year,

Vehicle Year)

2of 2

	Pier 3					
3		112	15	4,50	6,40	
	Pier 4					
4		122	15	4,50	7,00	
	Pier 5					
5		180	15	5,00	7,00	Yacht berthing pier.
		61	3	4,00	5,00	
	Agency boats dock/dock	160	9	3,50	4,50	Agency Service Boat, Utility boats
	Wharf	90		2,00	3,0	Utility boats

## 1.3. Procedures for dangerous cargoes transferred and/or held for short periods at a Port/Shore facility

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#### 1.3.1. IMDG

Cargo defined in the IMDG Code as class 6.2 infectious substances and class 7 radioactive substances shall not be taken to the coastal facility. These cargoes are called dangerous cargoes that are absolutely not accepted and they are treated as transit cargo if the competent authority has permission. Loading and unloading is carried out in a special area in the coastal facility and they are removed by shipment without waiting in the coastal facility. In the case of handling such cargo, the safety rules set out in this guide shall apply.

- a) In matters such as handling dangerous cargoes to the coastal facility, temporarily holding them in the coastal facility, stacking and sorting, storage, the following issues shall be ensured to be fulfilled in terms of the safety of the coastal facility, employees and ships in the coastal facility.
- b) A coordination meeting will be held at least 1 day before the acceptance of dangerous cargoes to the coastal facility and the participation of Operations, Site planning, Shift Supervisor, TMGD and other relevant persons will be ensured in this meeting.
  - In the coordination meeting; In relation to the Dangerous cargo(s) to be accepted at the Port:
  - Risk from dangerous cargo
  - Interaction with hazardous cargoes present in the coastal facility,
  - interaction with cargoes planned to be accepted to the shore facility in the near future,
  - Stacking conditions
  - Parsing conditions
  - Need for materials and equipment in terms of Emergency Response
  - Competence of Emergency Response teams
  - Interaction issues from neighboring facilities / etc. are handled within the scope of current IMDG CODE documents and acceptance / rejection or manager decision is taken.
- c) If a decision is taken at the meeting to accept the dangerous cargo, the management, operation, storage, security and emergency response units are informed and the preparation and acceptance process is initiated.

In case of the need to inform the Port Authority in the acceptance to the coastal facility, the situation shall be notified to the Port Authority in writing together with the reasons.

#### 1.3.1.1. Procedure for Safe Handling of Packaged Dangerous Cargo

#### 1.3.1.1.1. Purpose

To ensure the safe handling and temporary storage of packaged dangerous cargoes.

#### 1.3.1.1.2. Operation

I. The person responsible for the handling of dangerous cargo, who will ensure communication between the ship and the shore facility, and the job description

- Person who will provide communication between the ship and the coastal facility: Alper ORTAKUYU
- Job description:

The personnel responsible for the operation of dangerous cargoes to ensure communication between the ship and the port have been determined and defined and communicated.

The responsible persons who will provide communication between the ship responsible for the operation of dangerous cargoes in our facility and the port are as follows. (1 shift supervisor)



#### **TASK DEFINITIONS**

The duties of the responsible personnel who will ensure communication between the ship and the port responsible for the operation of dangerous cargoes in our facility are as follows.

- a.) Determines the name of the Dangerous Substance(s) and checks the documents.
- b.) Reviewed the procedures for handling and unloading/unloading dangerous cargoes.
- c.) Determines the safety measures to be taken by working on the risks and hazards to be caused by dangerous loads.
- d.) Determines the personnel who will carry out the collection/discharge and handling in relation to the dangerous cargo and the relevant protective equipment.
- e.) Informs the personnel who will carry out the collection/unloading and handling of dangerous cargoes about the cargo.
- f.) It helps to implement the "Accident Prevention Policy" determined at the port facility in order to prevent accidents that may occur during the handling of dangerous cargoes, to ensure the safety of life, property and the environment and to minimize the damages of possible accidents to people and the environment.
- g.) When it detects a nonconformity in the handling of dangerous cargoes, the handling operation is stopped and the nonconformity is eliminated.
- h.) It constantly controls the fire, safety and security measures taken in the coastal facility and ensures that the deficiencies are eliminated immediately.
- i.) Ensure that coastal facility personnel and seafarers involved in handling dangerous goods wear protective clothing during loading, unloading and storage.
- j.) It ensures that firefighters in the hazardous cargo handling area are equipped with firefighting equipment and that fire extinguishers, first aid units and equipment are available for use at all times.
- k.) It is aware of the practices in the emergency evacuation plan for the evacuation of ships and sea vehicles from coastal facilities in case of emergency and coordinates the operation.
- 1.) Checks that the persons involved in the loading, unloading and handling of dangerous goods have received dangerous goods training and have a certificate. It allows personnel who do not yet have certification to work only under the control of competent personnel.
- m.) It ensures that dangerous cargoes are transported, handled, sorted, stacked, temporarily held and inspected safely and in accordance with the rules by appropriately qualified, trained, personnel who have taken occupational safety measures at the operation site.
- n.) It checks that all mandatory documents, information and documents that must be present in relation to dangerous cargoes are found together with the cargo. When it detects deficiencies, it does not allow the cargo to be handled.

- o.) Checks the relevant documents in order to confirm that dangerous cargoes arriving at the facility by sea or continuing to travel by ship are identified, classified, certified, packaged, labeled, declared, safely loaded and transported in accordance with the provisions of the IMDG.
- p.) Takes the necessary safety measures for dangerous substances that do not comply with the rules, are unsafe or pose a risk to persons or the environment.
- q.) It ensures that emergency arrangements are made and that all relevant persons are informed about these issues.
- r.) Reports dangerous cargo accidents to its managers.
- s.) It prevents ships and marine vessels carrying containers containing dangerous cargo from docking at the pier and dock without the permission of the port authority.
- t.) In the event of an accident caused by hazardous materials, it initiates the necessary emergency response taking into account the EmS and the Emergency Plan.
- u.) It takes the necessary arrangements and measures to prevent the contamination of dangerous cargoes handled at the facility to the sea, soil, water or areas where water is discharged.
- v.) Persons affected by the damages of dangerous loads and those who require first aid as a result of accidents involving these loads are provided with medical first aid as soon as possible, taking into account the "Medical First Aid Guide (MFAG)" in the IMDG CODE annex.
- w.) Checks that all kinds of equipment used in hazardous material handling and stacking processes and that are powered or not powered by power are used and maintained under the conditions specified in the instructions and transmit the defects to the relevant units.

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II. In order to keep records on the positions of dangerous cargoes on the ship and in the port, the personnel responsible for these operations have been determined and defined and communicated.

In order to keep records of the positions of dangerous cargoes on the ship and in the port in our facility, the personnel responsible for these operations have been determined (5 mooring officers)

In order to keep records of the positions of dangerous cargoes on the ship and in the port in our facility, the duties of the personnel responsible for these operations are as follows.

- a.) Determines the name of the Dangerous Substance(s) and checks the documents.
- b.) Informs the personnel who will carry out the collection/unloading and handling of dangerous cargoes about the cargo.
- c.) It helps to implement the "Accident Prevention Policy" determined at the port facility in order to prevent accidents that may occur during the handling of dangerous cargoes, to ensure the safety of life, property and the environment and to minimize the damages of possible accidents to people and the environment.
- d.) When it detects a nonconformity in the handling of dangerous cargoes, the handling operation is stopped and the nonconformity is eliminated.
- e.) It ensures that firefighters in the hazardous cargo handling area are equipped with firefighting equipment and that fire extinguishers, first aid units and equipment are available for use at all times.
- f.) It is aware of the practices in the emergency evacuation plan for the evacuation of ships and sea vehicles from coastal facilities in case of emergency and coordinates the operation.
- g.) Checks that the persons involved in the loading, unloading and handling of dangerous goods have received dangerous goods training and have a certificate. It allows personnel who do not yet have certification to work only under the control of competent personnel.

- h.) It checks that all mandatory documents, information and documents that must be present in relation to dangerous cargoes are found together with the cargo. When it detects deficiencies, it does not allow the cargo to be handled.
- i.) Checks the relevant documents in order to confirm that dangerous cargoes arriving at the facility by sea or continuing to travel by ship are identified, classified, certified, packaged, labeled, declared, safely loaded and transported in accordance with the provisions of the IMDG.
- j.) Maintains an up-to-date list of all hazardous cargoes at the IMDG site.
- k.) It ensures that emergency arrangements are made and that all relevant persons are informed about these issues.
- III. Packages and packages to be used in the activities of replacing and repairing cargo carrying units or placing damaged packages in rescue packages must be manufactured and certified in accordance with the structure of the dangerous substance and within the scope of the provisions of Section 6 of the IMDG Code. Rescue packages at the Port of Zeyport meet the requirements of IMDG Part 6.



- IV. In the coastal facility, cargo transport units; In the process of loading internal loading and/or loading on other transport mode vehicles, the provisions of the "Packing of Cargo Transport Units Implementation Code (CTU Code)" should be taken into consideration. If containers/vehicles are being loaded by the shore facility operator in areas where the facility's freight transport units are unloaded and/or in closed warehouses (CFS areas), a "Container/Vehicle Packing Certificate" must be issued. In addition, it is checked by the coastal facility operator that each cargo transport unit coming to the coastal facility to be transported by sea has a "Container/Vehicle Loading Certificate", and the cargo transportation units without such certificate are not allowed to be loaded on the ship.
- V. Shore facility operator; shall carry out handling and temporary storage operations at the coastal facility in accordance with the sorting rules set out in Table 1 (Schedule for Dangerous Cargo in Port Areas) in the Annex to the International Maritime Organization (IMO) Circular MSC/Circ.1216 "Recommendations on the Safe Transport of Dangerous Cargo and Related Activities in Port Areas". Even if there are no containers or CTUs containing dangerous goods in the port area, the separation stacking provisions are complied with according to the provisions of IMO MSC/Circ.1216.
- VI. Load carrying units that are fumigated and/or contain toxic gases must be stacked in such a way that the lids cannot be opened uncontrollably. Fumigation operations in our port area are carried out according to T Y UB requirements.
- VII. Handling, transporting, storing, stacking of dangerous packaged cargoes; It is made by the ship captain and Zeyport Port Authority according to national and international legislation, IMO and EU recommendations/directives.
- VIII. Work and operations for damaged cargo handling units or packages containing dangerous goods shall be carried out by taking the necessary precautions in the secure zone. In case of leakage in the said cargo carrying unit or packaging, the relevant procedures are in the portable leakage pools.

SEPARATE REQUIREMENTS OF WAREHOUSE, WAREHOUSE AND OUTDOOR STACKING OF DANGEROUS LOADS

CLASS	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	8	9
Flammable gases (class 2.1)	X	X	X	2	1	2	X	2	2	X	1	X
Toxic and non-flammable gases (class 2.2)	X	X	X	1	X	1	X	X	1	X	X	X
Toxic gases (class 2.3)	X	X	X	2	X	2	X	X	2	X	X	X
Flammable liquids (class 3)	2	1	2	X	X	2	1	2	2	X	X	X
Flammable solids (including self- reactive substances, polymerizing agents and desensitized solid explosives) (class 4.1)	1	X	X	X	X	1	X	1	2	X	1	X
Substances prone to sudden explosion (class 4.2)	2	1	2	2	1	X	1	2	2	1	1	X
Substances which, in contact with water, emit flammable gases (class 4.3)	X	X	X	1	X	1	X	2	2	X	1	X
Substances causing oxidation (class 5.1)	2	X	X	2	1	2	2	X	2	1	2	X
Organic peroxides (class 5.2)	2	1	2	2	2	2	2	2	X	1	2	X
Toxic substances (class 6.1)	X	X	X	X	X	1	X	1	1	X	X	X
Corrosive substances (class 8)	1	X	X	X	1	1	1	2	2	X	X	X
Miscellaneous dangerous goods and items (class 9)	X	X	X	X	X	X	X	X	X	X	X	X

#### **Meaning of Symbols**

Symbol	Packages / IBCs / trailers / platform containers	Closed containers / portable tanks	Open road vehicles / railway cars / open top containers
X	No Need or IMDG DGL Column 16b	No Need	No Need
1	At least 3 m should be separated.	No Need	At least 3 m should be separated.
2	a minimum separation of 6m is required in open areas, hangars or warehouses, a minimum of 12 meters must be separated unless separated by an approved fire wall.	In open spaces, a minimum separation of 3m longitudinally and laterally, longitudinally and laterally of hangars or tanks, a minimum separation of 6m is required, unless separated by an approved fire wall.	In open spaces, a minimum separation of 6m longitudinally and laterally, longitudinally and laterally of hangars or tanks, a minimum separation of 12m is required, unless separated by an approved fire wall.



#### 1.3.1.1.3. Stacking and Storage

a) A storage area in accordance with the separation and stacking rules should be established for packaged dangerous cargoes and containers carrying dangerous goods, and the temporary storage of such packaged cargoes and containers should be made in accordance with the separation and stacking rules. Necessary fire, environmental and other safety measures should be taken in these areas. If hazardous materials are being hoarded or stored in the entire site, access routes to cargo transport units containing hazardous materials should be open and there

should be equipment on site that can provide emergency facilities and capabilities that can be intervened in a short time.

- b) The hardware, software and interfaces required to transfer electronic data on dangerous cargoes handled or temporarily stored must be provided.
- c) Cargo transport units carrying temperature-controlled dangerous goods may be temporarily stored at the port only in special areas where the necessary precautions have been taken. The temperature values of the aforementioned load carrying units should be continuously monitored and, to the extent applicable, with remote monitoring facilities.
- d) Packages containing hazardous substances that emit flammable gases in contact with Class 4.3 water and cargo transport units containing such packages are temporarily stored in the porch in front of the port warehouse in our facility in a way that is not affected by rain, sea water and similar factors and the location is shown in the port general situation plan. This area is equipped with warning signs indicating the risks of such loads. CTUs containing these hazardous substances can be stacked in open facility areas if they are not affected by rain, sea water and similar factors.



#### 1.3.1.1.4. Emergency

- a) In the event of emergencies or accidents, the first aid materials to be used for intervention should be kept in places where the location is known and easily accessible by the personnel.
- b) The necessary warnings, warning signs and fire alarm buttons should be placed in visible and easily accessible places. In places and situations that pose a danger, the relevant personnel should be equipped with personal protective clothing and equipment in accordance with the occupational safety and occupational health criteria. Personnel who do not have personal protective clothing and equipment appropriate to their job descriptions and working areas should not be employed.
- c) Communication equipment in the operations of collection/unloading and handling of dangerous cargoes; It is of a safely usable type and sufficient to ensure uninterrupted communication, and must be kept in working order and in good condition.
- d) In accordance with the job descriptions and working areas of the personnel involved in the collection/discharge of packaged dangerous cargoes, training is given gradually according to their duty powers and responsibilities from the first job entry in accordance with the relevant legislation on emergency situations (fire, explosion, leakage, etc.) intervention, occupational health and safety, safety and similar issues.
- e) Our port facility is connected with sufficient volume of water, sufficient power and capacity for cooling purposes electric and diesel engine water pump, sufficient number/diameter of fire pipes and contact fire hydrant, fire cabinet, sufficient power backup power generation devices (generator), sufficient number of foam (for buildings and extinguishing works other than liquefied gas fire) and dry chemical/dusty fixed/mobile fire extinguishing devices equipped and certified by a competent engineer has a port fire plan.

#### 2. RESPONSIBILITIES:

All parties engaged in the transport of dangerous goods (Port/Shore Facility operator, cargo concerned, ship captains); They are obliged to carry out the work and operations related to dangerous loads in a safe, safe and environmentally harmless manner, to prevent accidents and to take all necessary measures to minimize the damage as much as possible when an accident occurs.



## 2.1. GENERAL RESPONSIBILITIES (Regulation on the Transport of Dangerous Cargo by Sea and the Safety of Loading)

All parties engaged in the transport of dangerous goods; They are obliged to take all necessary measures to make the transportation safe, safe and environmentally harmless, to prevent accidents and to minimize the damage as much as possible when an accident occurs: In order to carry out the procedures related to dangerous cargo safely, the trainings specified in Article 1.2 of this document are carried out and all the processes and documents prepared are applied on site.

## 2.1.1. They are obliged to take all necessary measures to make transportation safe, safe and environmentally harmless, to prevent accidents and to minimize the damage as much as possible when an accident occurs.

- They use the roads allocated to them for all vehicles carrying the load carrying units.
- When an emergency is required, the signs, labels and plates on the load carrying units must remain visible.
- All vehicles must comply with the in-port speed limit.
- Speed control is carried out within the port. All vehicles are expected to comply with speed limits.
- Vehicle personnel carrying cargo carrying units containing dangerous cargo should have equipment in the vehicle against spillage and scattering.
- For each vehicle personnel, personal protective equipment must be available to the load appropriately and in quick access.
- Vehicles carrying dangerous cargo must have at least 2 x 6 kg fire extinguishers and 2 kg of fire extinguishers in the driver's cabin.
- Smoking is prohibited in vehicles.
- Traffic signs and rules within the port must be obeyed.
- In case of vehicle breakdown, the coastal facility should be informed immediately and assistance should be requested.
- No stranger should be allowed in the driver's cabin except for the vehicle crew in the port.
- No waste should be thrown out of the vehicle during the journey.
- The traffic instructions of the coastal facility officials must be followed.
- In adverse weather conditions such as snow, rain, storms, the vehicle should be used with caution.
- The use of recreational substances in the vehicle is prohibited.

## 2.1.2. EmS – Emergency Response Methods and Emergency Schedule for Ships Carrying Dangerous Goods

In emergency situations such as fire, leakage and debris that occur during the transportation of dangerous cargoes, the EmS Guide including Emergency Response Methods and Emergency Schedules for Ships Carrying Dangerous Goods is used.

The EmS Manual contains guidance on Emergency Response Procedures for Ships Carrying Dangerous Goods, including emergency programmes (EmS) to be followed in the event of incidents involving hazardous substances, materials or objects or harmful substances (marine pollutants). Accordingly;

In the event of a fire or spill incident, initial actions must be taken in accordance with the contingency plan on board. Taking into account the type of ship, the quantity and type of packaging, and whether the goods are stacked, the manual for certain dangerous goods is given individual methods of intervention. Intervention on or under deck varies.

The guide is for the use of packaged dangerous cargoes and vessels where the captain and crew need to intervene against fires and spills without outside assistance.

For fires, the EmS fire schedule should be consulted. The table specifies the appropriate fire extinguishing method for each dangerous cargo.

#### 2.1.2.1. Specialnotes for classes of substances in fires

#### **2.1.2.1.1.** Class 1



Everything must be done to prevent the spread of fire to containers containing class 1 goods. If it is not possible to prevent the spread of fire, all personnel should immediately withdraw from the site.

Many explosives will burn up to the point of explosion. What needs to be considered is whether a mass explosion is likely. Such an explosion can damage both the ship and the shore facility. In the case of goods belonging to subgroup 1.1 or subgroup 1.5, this possibility will exist. The time between the fire reaching the explosives and the subsequent mass explosion will be between a few seconds and minutes. The ship must ascertain how large the amount of such explosives is involved. A few kilograms are unlikely to sink the ship, but on this one must take into account a clear risk to the safety of the crew and the stability of the ship. Sudden or short-term events may endanger the safety of the vessel.

Explosives in subgroups 1.2, 1.3, 1.4 and 1.6 are *unlikely to explode en masse*. Any firefighting, regardless of the splitting of explosives, must be carried out behind important protection. If the risk to firefighters is too high, hoses can be attached to rails or other suitable fixtures and left unmanned.

Neither the removal of air nor the use of suffocating material will be effective against a fire containing explosives. Using the greatest possible amount of water in the shortest possible time is the only way to try to prevent a temperature rise that could affect the chemical stability of explosives.

Some dangerous goods of this class are soaked or immersed in water. As they dry out, they become unstable.

#### **2.1.2.1.2.** Class 2

Gases are substances that are usually transported in cylinders, bottles, portable tanks, aerosols and bottles with varying degrees of pressure. Gases can be flammable, toxic or corrosive and can be compressed, liquefied or cooled.

Gases do not start to burn unless there is an ignition source (e.g. fire or heat). Since it can be the center of the fire, it is necessary to determine the location of the burning gas. Heating of the outlet is the most serious danger due to the possibility of breaking, jumping or bursting. In the event of a fire, containers containing gas should be sprayed with plenty of water to keep them as cold as possible.

Non-combustible leaks from flammable gas containers can cause explosive mixtures to form in the air. If a fire caused by the ignition of leaking gas is extinguished at the cargo site without stopping the leak, gas accumulation occurs. This will result in an explosive mixture or a toxic or suffocating atmosphere.

Leaks of some liquefied gases can emit extremely low temperatures. These extremely low temperatures are an additional danger other than flammability and toxicity, and emergency crews should avoid such leaks and contact with the immediate environment.



#### **2.1.2.1.3.** Class 3

It is dangerous to spray water on a fire that contains flammable liquids. Many flammable liquids float on the water, and the water jet spreads the liquid, posing a greater danger. Closed containers exposed to fire will be pressurized and tearing will occur.

The heated flammable liquid will emit vapors that can instantly begin to burn with an explosive effect. As a result, firefighting personnel must remain in a well-protected position and use water spray to the fire zone. This cools the temperature of the liquid and the air-steam mixture.

#### **2.1.2.1.4.** Class 4.1

Flammable solids are self-reactive substances, desensitized solid explosives and polymerizing substances that include flammable solids, water-soaked explosives (i.e. desensitized explosives) and self-reacting substances.

Flammable solids can ignite easily. In the event of a fire, water-soaked explosives (i.e. desensitized explosives) will effectively have class 1 product characteristics. In such a case, special notes on class 1 explosives should be consulted.

Self-reacting substances are sometimes transported under temperature-controlled conditions, where the control temperature will depend on the specific properties of the transported substance. If the control temperature is exceeded, the refrigeration unit must be checked. If the temperature control cannot be restored, the manufacturer should be consulted as soon as possible. If smoke is observed, the manufacturer should be similarly consulted. Cargo must then be kept under surveillance.

#### **2.1.2.1.5.** Class 4.2

Substances prone to self-combustion include pyrophoric substances, which will burn instantly when in contact with air, and self-heating substances that lead to spontaneous combustion.

Although using dry inert powder material to extinguish the fire is the preferred option, in most cases such a procedure may not be possible. Two methods of dealing with such fires are possible. These are;

- I. Controlled combustion: stay in a well-protected position. Let the goods burn. Many products of this class react dangerously with water. In such cases, contact with water can exacerbate the burning. Therefore, it is not recommended to apply water directly on the burning goods. When portable water monitors are available that provide water shield function: create a water curtain to prevent the spread of fire. The fire in which the goods are involved must be left to extinguish completely. If the fire has already spread to adjacent cargo that does not react with water, fight this fire from a safe distance.
- II. Fight the fire from a safe distance. If the location of the fire makes it possible, plenty of water should be used immediately. While the burning goods will react with water and create heat, a large amount of water will cool the reaction and prevent further heat dissipation. However, water

should not be used when the location of the fire makes it impossible to apply abundant water directly to the goods.

#### 2.1.2.1.6. Class 4.3



Substances that emit flammable gases when in contact with water react violently with water, releasing flammable gases. The heat of the reaction is sometimes enough to start a fire. Sometimes the collateral danger can be poisonous substance. In some cases, it can also be seen as a collateral danger of the poisonous substance.

Although using dry inert powder material to extinguish the fire is the preferred option, in most cases such a procedure may not be possible. Two methods of dealing with such fires are possible. These are;

- I. Controlled combustion: stay in a well-protected position. Let the goods burn. All goods of this class react dangerously with water: contact with water will exacerbate the combustion. Therefore, it is not recommended to apply water directly on the burning goods. When portable water monitors that provide water shield function are available: create a water curtain to prevent the spread of fire. The fire in which the goods are involved must be left to extinguish completely. If the fire has already spread to adjacent cargo that does not react with water, fight this fire from a safe distance.
- II. Fight the fire from a safe distance. This should be taken into consideration as fire extinguishing with water intensifies the fire and can cause the emergence of flammable gases that may explode in mixtures with air.

#### 2.1.2.1.7. Class 5.1

This class of substances tends to produce oxygen and, therefore, accelerate a fire. Although these substances are not necessarily flammable in themselves, they can cause other materials (for example, sawdust or paper) to burn or contribute to the fire, causing an explosion.

Fires with these substances are difficult to extinguish because the ship's firefighting installation may not be effective. Everything possible must be done to prevent the spread of fire to containers containing these hazardous substances. However, if the fire reaches the cargo, the personnel should immediately be towed to a well-guarded location.

#### 2.1.2.1.8. Class 5.2

This class of substances is prone to severe burning. Some substances have a low decay temperature and are transported under temperature-controlled conditions, where the control temperature will depend on the specific properties of the transported substance.

If the temperature control cannot be restored, the manufacturer should be consulted as soon as possible, even if the smoke output stops. Cargo must then be kept under surveillance. The surrounding area should be kept isolated because liquid can gush out of the drain arrangements.

#### 2.1.2.1.9. Class 6.1

Substances of this class are toxic by contact or inhalation, and therefore the use of independent respirators and firefighters' clothing is mandatory.

#### 2.1.2.1.10. Class 6.2

These are substances that are known or reasonably expected to contain pathogens (i.e. microorganisms known or reasonably expected to cause infectious disease in humans or animals). Pathogens can survive a fire, and therefore an independent respirator should be used.

#### 2.1.2.1.11. Class 7

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Many radioactive materials are transported in packages designed to protect their enclosure and protection in the event of accidents. However, under extreme fire conditions, containment failure or loss of protection or criticality safety can result in significant hazards to personnel. Any class 7 package should be avoided from prolonged exposure to excessive heat and kept as cool as possible using plenty of water in case of emergency. If a packaging of radioactive material has been exposed to a serious fire, expert advice should be sought. Suspected contamination of safety and firefighting equipment should be removed as quickly as possible.

Some packages may have a class 7 label and other hazard labels. Such additional hazards may be greater than the radiation hazard.

#### 2.1.2.1.12. Class 8

These substances are extremely dangerous for humans, and many of them can lead to the destruction of safety equipment. Burning cargo of this class will produce highly corrosive vapors. As a result, it is essential to install an independent respirator.

#### 2.1.2.1.13. Class 9

Miscellaneous hazardous substances and objects and substances harmful to the environment include substances, materials and articles which are considered to have some degree of hazard but are not classified in the criteria of classes 1 to 8.

#### 2.1.2.1.14. Marine pollutants

A number of substances included in all of the above classes have also been identified as marine pollutants. Packages containing these substances shall bear the mark of marine pollutants.

In the event of a leak from burning cargo, it is important to know that the spillage of any marine pollutant washed into the sea will pollute the sea. However, instead of preventing pollution of the sea, it is more important to respond to a fire on a ship.

#### 2.1.2.2. Special classes for dangerous goods in spills

#### 2.1.2.2.1. Class 1

Properly packed explosives are unlikely to explode unless exposed to a fire or source of ignition. Within the divisions of this class there are differences in explosive power. From a sailor's point of view, the volumes of the relevant explosives are of primary importance for the safety of the vessel. However, even small volumes of spilled material can ignite and injure individual crew members. In general, spilled explosives are less dangerous when kept wet.

Some explosive mixtures, water, are stabilized in such a way that they separate the explosives from the stabilizer and thus pose a higher risk. The explosive component becomes very sensitive to shock and heat. The explosive must be stored by mixing it under water and washed in the sea. Wetted items should be discarded.

Some types of ammunition contain a poisonous material or tear gas substance. In addition to the danger of explosion, the danger of toxicity must also be realized. The use of an independent respirator is mandatory.

#### 2.1.2.2.2. Class 2



The release of a flammable gas (class 2.1) is the first step leading to a potential steam cloud explosion. For an explosion to occur, the substance must mix with the air in such a way that the mixture forms a cloud. As soon as friction (electrostatic potential) enters the explosive range, and an explosion can occur with an ignition source, sudden fire, glare, and sometimes, even devastating consequences. When dealing with gas leaks, allow the gas to evaporate and drift. Keep all ignition sources away. Water spray can reduce the potential for cloud ignition.

Non-toxic, non-flammable gases (class 2.2) can replace oxygen, creating a choking hazard. It is important that all relevant areas are ventilated.

When toxic gases (class 2.3) are released, they can fill an area of the vessel or a compartment with a toxic atmosphere. Therefore, in order to protect against such gases, it is important to turn off, seal off and secure all ventilation that feeds the living space, machine premises and bridge. An independent breathing apparatus is required for the emergency team.

Liquefied gases can cause the additional danger of very low temperatures around the leakage point. Such a leak will be especially dangerous when there is a leak in the liquid phase from a container where very low temperatures will be experienced. The emergency team should avoid contact with liquefied gases if possible.

Oxidizing gases can react violently with a range of organic materials. These reactions can generate heat, produce flammable gases, and ignite flammable materials.

#### 2.1.2.2.3. Class 3

The release of the evaporated flammable liquid is the first step that leads to a potential *steam cloud explosion*. For an explosion to occur, steam must mix with air in such a quantity that the mixture will allow it to form a cloud. As soon as friction (electrostatic potential) enters the explosive range, and an explosion can occur with an ignition source, sudden fire, glare, and sometimes, even devastating consequences. Water spray will reduce the evaporation of the cloud and its potential for ignition. Keep all ignition sources away.

At high concentrations, many flammable liquids exhibit a narcotic effect (not labeled accordingly), a short-term potentially lethal effect (defined by the class 6.1 label), or a long-term toxic effect (unlabeled). Therefore, in any case, it is recommended to use an independent respirator.

Some flammable liquids are corrosive to human skin, ship hull, or normal personal protection equipment. Vapors are toxic when inhaled. For this reason, washing the debris and throwing the vapors into the sea with water spray is the preferred method. It is important to close all ventilations to protect the living and machine spaces and the bridge from vapors. Crew members must stay away from any wastewater.

Many flammable liquids are insoluble in water and float on water (e.g. mineral oil, kerosene, petroleum). In general, high concentrations of these substances are not lethal, but have a narcotic effect. The crew should be aware of this and stay away from high-concentration vapors. Mineral oil is considered a marine pollutant even though it is not classified or labeled. Depending on the quantities, oil spilled into the

sea can cause problems and is often given a high profile by the media. In the case of spillage on board, the dominant danger is flammability. Keep all igniting sources away.

#### 2.1.2.2.4. Class 4.1

FILTER

Flammable solids, self-reactive substances, desensitized solid explosives and polymerizing agents contain many different substances and varying hazards in their three subclasses. Many of them are not solid. Some of these materials require the use of special substances for cleaning/suction, as they react negatively with water, sand or other inert materials. The procedures and materials to be used in case of spillage are defined in ten different charts.

Spilled flammable solids can create an explosive environment that can easily ignite. Some solids (e.g. items) can be repackaged, while others will contaminate the surfaces of ships, which must be thoroughly cleaned by launching the substances into the sea.

Several flammable materials are transported in molten form. To clean contaminated areas, it is possible to use inert materials to allow the emergency team to shovel the debris and throw it into the sea.

Flammable solids that are explosive when poured from a package should be kept wet and thrown into the sea. The ignition of the drying material (e.g. by heat or friction) will lead to an explosion.

Temperature-controlled self-reacting substances are also classified as flammable solids under class 4.1. Spillage is often linked to the failure of temperature control, which leads to a chemical reaction and creates a fire hazard. If it is not thrown into the sea, the relevant FIRE PROGRAM should be applied.

Many flammable solids, substances prone to self-combustion and many of the substances that are dangerous when wetted are harmful to health through skin contact or inhalation of dust. It is therefore recommended to use an independent breathing apparatus and appropriate chemical protection (e.g. chemical suit) in all cases.

#### 2.1.2.2.5. Class 4.2

Some self-igniting substances can react with water. Drowning with dry inert material and throwing it into the sea immediately can limit the danger of ignition. Others will ignite within minutes, and fighting the fire will be necessary.

#### 2.1.2.2.6. Class 4.3

Depending on their chemical properties, substances that are dangerous when wet (class 4.3) can be collected and thrown from the boat into the sea, or kept dry and thrown into the sea, even if they react with water. In case of the formation of flammable gases, it is recommended to use water spray.

#### 2.1.2.2.7. Class 5.1

Class 5.1 loads contain oxygen, and some ignite flammable materials in contact. In general, contact with substances of this class will be harmful to the skin, eyes and mucous membranes. It is therefore recommended to use an independent breathing apparatus and appropriate chemical protection (e.g. chemical suit).

Spilled oxidizing agents (class 5.1) can ignite or destroy flammable materials due to their chemical reactions (e.g. personal protection). Such debris should be washed in the sea. All team members should stay away from wastewater.

#### 2.1.2.2.8. Class 5.2

FILE

Organic peroxides (class 5.2) are highly reactive and some can explode when ignited. Class 5.2 liquids are flammable liquids that must be kept away from all sources of ignition. These substances instantly destroy the eyes. Some substances are transported under temperature control, which is necessary to prevent the reaction that can lead to fire (often noticed as the formation of smoke) and the development of heat.

#### 2.1.2.2.9. Class 6.1

The effects of toxic substances (class 6.1) can occur immediately when exposed to them or delayed until after exposure. Inhalation is the main way for vapors, gases, mists and dust. For the emergency team, skin and eye contact is alarming. In all cases, it is recommended to use an independent breathing apparatus and appropriate chemical protection (e.g. chemical suit). The vapors of toxic liquids can fill an area of the ship or an area with a toxic atmosphere. Therefore, in the event of the formation of steam, it is important to turn off, seal and insulate all ventilation leading to the living and machine premises and the bridge.

Some toxic substances are also flammable. In this case, safety recommendations for both flammable and toxic liquids should be followed.

#### 2.1.2.2.10. Class 6.2

Substances of Class 6.2 are contagious, biological products, diagnostic samples, clinical wastes, etc. In the event of spillage of such substances, different types of biological hazards may develop. Some spilled goods in Class 6.2 may cause illness to crew members if they come into contact with skin or inhalation. Washing into the sea is recommended for above-deck spills, while waiting for expert advice for underdeck spills is recommended. Any skin contact or inhalation of fog or dust should be avoided. Expert advice is particularly important with regard to exposure risk, decontamination methods and reporting procedures.

#### 2.1.2.2.11. Class 7

Many radioactive materials are transported in packages designed to maintain their enclosure and protection under accidental conditions. Failure of the enclosure, resulting in spillage, which can pose a significant danger to personnel, can only be expected under very severe conditions. Damp surfaces on undamaged or slightly damaged packages are rarely an indication of packaging failure. If the contents of a package of radioactive material appear to have been leaked in error, expert ADVICE should be sought.

Some packages may have both a class 7 label and other hazard labels. Such additional hazards may be greater than the radiation hazard.

Spill can mean the release of any solid, liquid or gaseous radioactive material from its packaging. Personal protective materials and equipment on board are often unable to protect against the health effects of penetrating ionizing radiation. Therefore, in order to protect personnel from the potential effects of radiation from the spilled cargo (which may include the release of radioactive materials in special form from their packaging), two parameters are important when intervening in the spillage of these materials: TIME and DISTANCE.

Personnel should be restricted to the shortest possible time entering the area where radioactive material is spilled, and the distance between the debris and any personnel should be maximized. In addition, radiation contamination of personnel through inhalation, swallowing or skin contact should be a cause for concern.

#### 2.1.2.2.12. Class 8



Corrosive solids and liquids can permanently damage human tissue. Some substances can corrode steel and destroy other materials (for example, personal protective equipment). Corrosive vapors are highly toxic and often lethal by destroying lung tissue. All corrosive chemicals will be dangerous (toxic) to human health. Avoid direct contact with the skin, protect against inhalation of steam or mist.

In all cases, it is recommended to use an independent breathing apparatus and appropriate chemical protection (e.g. chemical suit). Washing the spills and throwing the vapors into the sea with water spray is the method applied in any case. It is important to turn off, seal off and secure all ventilation leading to the preferred location, engine rooms and bridge. All staff must stay away from wastewater.

Some corrosive substances are also flammable. In these cases, safety recommendations for both flammable and corrosive substances must be followed. It is recommended to use plenty of water and water spray. In general, the danger of ignition is more important to the safety of the ship and crew than the corrosive properties.

#### 2.1.2.2.13. Class 9

This class includes various hazardous substances that do not easily meet the criteria of other hazard classes. However, these substances represent hazards. There are no common characteristics that apply to all goods of this class.

#### 2.1.2.2.14. Marine pollutants

A number of substances in all classes have also been designated as marine pollutants because they are dangerous to marine life. Packages containing these substances shall bear a Marine Pollutant mark.

Instead of preventing pollution of the sea by marine pollutants, it is more important to ensure the safety of the crew and the integrity of the loaded ship.

### 2.1.3. MFAG - Medical First Aid Guide



The Medical First Aid Guide (MFAG) in the IMDG Code annex is used in order to provide the necessary medical first aid to the persons affected by the damages of dangerous loads and the health problems caused by accidents involving these cargoes.

Information on medical first aid is provided in the IMO/WHO/ILO Medical First Aid Guide for Use in Accidents Involving Dangerous Substances (MFAG) published by IMO.

Contamination with any hazardous substances should be immediately removed from the skin, and then, for example, washed off with plenty of water.

MFAG should be used in case of spillage of toxic substances.

Most of the toxic substances and many infectious substances are also toxic to marine animals. If necessary, consult safety datasheets or experts for individual features.

# 2.2. Responsibilities of the cargo handler

The responsibilities of the cargo subject are as follows:

- a) Prepares and prepares mandatory documents, information and documents related to dangerous cargoes and ensures that these documents are present with the cargo during the transportation activity.
- b) It ensures that dangerous cargoes are classified, packaged, marked, labelled and plated in accordance with their type.
- c) It ensures that dangerous cargoes are loaded, stacked and securely connected to approved packaging and cargo handling units in accordance with the rules and safely.

## 2.3. **Responsibilities of the carrier**

The carrier's responsibilities are as follows:

- Requests mandatory documents, information and documents related to dangerous cargoes from the cargo owner and ensures that they are present with the cargo during the transportation activity.
- b) Checks the regulatory compliance of hazardous cargoes classified, packaged, marked, labelled and plated by the cargo subject.
- Checks that dangerous cargoes are packaged in accordance with the rules using approved packaging and cargo handling units, that they are safely loaded into the cargo transport unit and that they are securely fastened.

# 2.4. Responsibilities of the coastal facility operator

The responsibilities of the coastal facility operator are as follows:

a) It shall not dock vessels carrying dangerous cargoes without the permission of the port authority.

- b) It shall provide written information to the ship to be docked within the scope of the facility rules, cargo handling rules and relevant legislation.
- c) It does not handle dangerous cargoes that it has not received permission from the administration, and does not victimize the ships that will dock by planning in this context.
- d) It requests mandatory documents, information and documents related to dangerous cargoes from the cargo owner and ensures that they are found together with the cargo. In the event that the relevant documents, information and documents cannot be provided by the cargo person, it is not obliged to accept or handle the dangerous cargo to the facility.
- e) It shares all the data that may be required according to the characteristics of the cargo with the ship owner and performs the loading or unloading operation according to the agreement to be reached. The ship does not make changes in the operation without the knowledge of the person concerned.
- f) Determines the operating limits taking into account the safe working capacity of the facility and the weather forecasts, and takes the necessary measures to keep the ship safely connected at the dock and to carry it out.
- g) Checks the transport document containing information that the dangerous cargoes arriving at the facility have been properly classified, packaged, marked, labelled, plated and safely loaded into the cargo transport unit.
- h) It ensures that the personnel involved in the handling of dangerous goods and the planning of this handling are certified by receiving the necessary trainings and does not assign the personnel who do not have documents in these operations.
- i) It ensures that the hazardous cargo handling equipment in its facility is in working order and that the relevant personnel are trained and certified in relation to the use of this equipment.
- j) By taking occupational safety measures in the coastal facility, it ensures that the personnel use personal protective equipment appropriate to the physical and chemical characteristics of the dangerous cargo.
- k) It carries out activities related to dangerous cargo in docks, piers and warehouses established in accordance with these works.
- l) Equip the berths and piers reserved for ships to carry out the loading or unloading of dangerous liquid bulk cargoes with installations and equipment of suitable quality for this work.
- m) Keeps an up-to-date list of all dangerous cargoes on ships docked at its facility and in the enclosed and open areas at its facility and provides this information to the relevant persons upon request.
- n) It informs the port authority of the immediate risk posed by the dangerous cargoes it handles or temporarily stores at its facility and the measures taken for this.
- o) Reports accidents related to dangerous cargoes, including accidents at the entrance to closed areas, to the port authority.
- p) It provides the necessary support and cooperation in the controls and inspections carried out by the administration and the port authority.
- q) Ensure that Class 1 (with the exception of Class 1 Compliance Group 1.4 S), Class 6.2 and Class 7 dangerous cargoes, the temporary storage of which is not permitted, are transported out of the coastal facility as soon as possible without waiting, and in cases where it is necessary to hold them, apply to the Administration for a permit.
- r) It temporarily stores the load carrying units where dangerous loads are transported in accordance with the separation and stacking rules and takes fire, environmental and other safety measures appropriate to the class of the dangerous cargo in the storage area. In the areas where dangerous loads are handled, fire extinguishing systems and first aid units are ready for use at any time and periodically carry out the necessary controls.
- s) It receives permission from the port authority before the hot work and operations to be carried out in the areas where dangerous cargoes are handled and temporarily stored.
- t) Prepares an emergency evacuation plan for the evacuation of ships from coastal facilities in case of emergency, submits it to the port authority and informs the relevant persons about the plan approved by the port authority.

u) It ensures the internal loading of the load carrying units in accordance with the loading safety rules in the facility.

# 2.5. Responsibilities of the ship's contact person

The responsibilities of the ship owners are as follows:

- a) It ensures that the cargo to be carried by the ship is certified as suitable for carriage and that the cargo holds, cargo tanks and cargo handling equipment are in a condition suitable for cargo transportation.
- b) It requests all mandatory documents, information and documents related to dangerous cargoes from the cargo owner and ensures that it is present with the cargo during the transportation activity.
- c) It ensures that the documents, information and documents that must be present on board the ship within the scope of legislation and international conventions are appropriate and up-to-date.
- d) Check the transport document containing information that the cargo transport units loaded on board the ship are properly marked, plated and safely loaded.
- e) It informs the relevant ship personnel about the risks of dangerous cargoes, safety procedures, safety and emergency measures, response methods and the like.
- f) Keeps up-to-date lists of all dangerous cargoes on board and declares them to the relevant persons upon request.
- g) Ensure that the loading program, if any, is approved and certified on board and is kept operational.
- h) It shall notify the port authority and the coastal facility of the immediate risk posed by the dangerous cargoes on board the ship docked to the shore facility and the measures taken for this.
- i) It does not accept to carry the dangerous cargo in the event of leakage in the dangerous cargo or in the event of such a possibility.
- j) Notify the port authority of dangerous cargo accidents that occur on board the vessel while sailing or while on shore facility.
- k) It provides the necessary support and cooperation in the controls and inspections carried out by the administration and the port authority.
- 1) It does not accept to carry dangerous cargoes that are not included in the ship certificates issued by the relevant institutions and organizations.
- m) It ensures that shipowners in charge of handling dangerous goods use personal protective equipment appropriate to the physical and chemical characteristics of the cargo during handling.
- n) It provides the requirements for the safety of loading the cargo loaded on its ships.



- 1) The port authority stops the handling operation at the coastal facility when it deems any risk and does not start it until the risk is eliminated.
- 2) In order to ensure the safe loading of cargo on the ship, the provisions of the BLU Code and BLU Manual, the Safe Application Code for Cargo Stacking and Safety (CSS Code), the Application Code for the Packaging of Cargo Transport Units (CTU Code) and the Code of Safe Practices for Ships Carrying Timber Cargo on Deck (TDC Code) are complied with.
- 3) The stacking of the loads is carried out in accordance with the relevant legislation and international conventions to which we are a party.
- 4) The ship cannot be loaded more than the loading limit, taking into account the loading limit brand. In the event of such a situation, the ship shall not be allowed to sail and administrative action shall be taken against the person concerned within the scope of Article 22.
- 5) The results of the draft survey or scale survey shall be submitted to the port authority by the ship's concerned person in order to determine the loading-unloading plan before the handling operation and the amount of cargo loaded before the ship departs. The administration or port authority may request that the draft survey or scale survey report be obtained from an authorized inspection firm.
- 6) Measures are taken to prevent the stability of the ship from being adversely affected by ensuring that the cargo on bulk carriers, especially single-hatch bulk carriers, is loaded in a way that spreads (by pilling) to the bottom of the warehouse.
- 7) In order to prevent the structure of the ship from being subjected to excessive stress, monitoring of the load and ballast water pattern throughout the loading or unloading operation is provided.
- 8) Care is taken to ensure that the ship is inclined, but if a slope (tilt) is required during loading, it is ensured that it is as short as possible. In order to avoid structural damage to the vessel, the approved stability curl is ensured to be properly balanced, loading and unloading.
- 9) In adverse meteorological and oceanographic conditions that may affect the cargo handling operation, the handling operation shall be suspended by the captain until the conditions improve.
- 10) In order to prevent situations such as placing the heavy load on the light load, placing the liquid load on the dry load, and the smell of the foul-smelling loads spreading to other loads, the loads with the characteristics that may damage the other loads are loaded by complying with the rules of separation.
- 11) In order to ensure the full implementation and maintenance of safety measures relating to the loading, stacking, separation, handling, transportation and unloading of cargoes on board, all cargoes, cargo units and cargo transport units, except solid and liquid bulk cargoes, in accordance with SOLAS Chapter VI Part A Rule 5.6, shall be loaded in accordance with the Cargo Securing Manual approved by the Administration or its authorized classification societies on behalf of the Administration, it is stacked and secured.

# 3. RULES AND MEASURES TO BE FOLLOWED/APPLIED BY THE COASTAL FACILITY

# 3.1. Coastal Facility Operators with a Dangerous Cargo Compliance Certificate shall take the following measures.

- a) If it is not possible to ensure that dangerous cargo is stored in the area where they are unloaded at the pier or dock, the operators of the coastal facility shall ensure that these substances are transported out of the coastal facility as soon as possible without being kept in the port area.
- b) Dangerous cargoes are properly packaged and the packaging contains information describing dangerous cargoes and information on risk and safety measures.
- c) Coastal facility personnel, seafarers and other persons authorized to transport dangerous goods shall wear protective clothing appropriate to the physical and chemical characteristics of the cargo during loading, unloading and storage.
- d) Persons who will fight fires in the hazardous cargo handling area are equipped with firefighter equipment and fire extinguishers, first aid units and equipment are kept ready for use at all times.
- e) Coastal facility operators prepare an emergency evacuation plan for the evacuation of ships and sea vessels from coastal facilities in case of emergency and submit it to the port authority for approval.
- f) Coastal facility operators are obliged to take fire, safety and security measures.
- g) Coastal facility operators shall have the matters specified in this article approved by the port authority and announced to the relevant persons.
- h) The inspection of the provisions of this article shall be carried out by the port authority and when any nonconformity is detected, the handling operation shall be stopped and the nonconformity shall be eliminated.
- i) According to the Regulation on Training and Authorization within the Scope of the International Code on Dangerous Cargo Transported by Sea published in the Official Gazette dated 11/2/2012 and numbered 28201, personnel who do not have the necessary training and certificates are not allowed to enter the areas where these operations are carried out and in hazardous cargo handling operations.

## 3.2. Dangerous Goods and Cargo Rules

- a) There is no unloading or filling of any dangerous cargo with IMDG code in the port area.
- b) Unloading, loading and storage of Class 1 Explosives, Class 6.2 Infectious Substances and Class 7 Radioactive substances with IMDG code coming to the port area by sea and/or road are not carried out.
- c) At the port site, it is the responsibility of the shipper, loader and carrier to prepare all classification, placarding, labeling, packaging, written instructions about the cargo, transport documents and all other dispatch procedures, detailed information about dangerous cargoes in the transport units.
- d) Stationary tanks, tank-containers and portable tanks are coming to the port area to be transported by Ro-Ro ships.
- e) Personnel in charge of dangerous cargoes,

Three shifts are applied as working hours at the port. For this reason, an operations manager has been appointed by the port authority for each shift as the hazardous cargo operations officer.

- a) Dangerous cargoes arriving at the port;
  - 1-Loaded, marked and labeled correctly,
  - 2-There is no damage or leakage,
  - 3- All procedures are carried out and secured in a suitable way for sea travel,
  - 4-It is the responsibility of the shipper, loader and carrier to check that all the issues of the IMDG Code are taken into consideration and in this context, they are considered to correctly identify the dangerous cargoes arriving at the port.
- b) It is forbidden to smoke, to light fires, to use devices that emit open flames, to carry out hot work that produces sparks such as welding, cutting, grinding in the cargo deck and other dangerous areas of the ships carrying dangerous cargo docked in the port and in the areas where dangerous cargoes are temporarily kept in the port.
- c) External damage, leakage or overflow of contents of the cargo transport units of dangerous cargoes arriving at or going to the port shall be controlled by the operations officer.
- **d**) It is forbidden for agency service providers to carry out service vehicle maintenance and repairs (rapsa, paint) in the port area.
  - 1-When any damage leakage or overflow of contents is seen in the transportation units; the situation will be immediately reported to the Emergency contact points and the Port Authority by the port operator.
  - 2-Every dangerous cargo transport unit that is found to be damaged and leaked will not be loaded until the damages are eliminated or the damaged transport units are eliminated.
  - **3-** In cases where dangerous loads leak out or overflow due to a problem arising from the transport units, they will be taken into a security circle and dangerous loads will be kept in safe waiting areas within the possibilities.
  - **4-** If it is determined by the port authority that there is any damage to the transport vehicles disembarking from the ship or to be loaded on the ship, the shipper and carrier unit shall be notified and the operations shall be stopped.

# 3.3. Unloading, Loading, Holding of Dangerous Cargo from the Ship, Supervision and Control of the Port Area:

## **3.3.1. Dangerous Cargo Transport Units (tankers)**

Ro-ro ships arriving at the port dock at Pier No. 1 within the scope of the "Operation Permit" for unloading and unloading land vehicles.

Fire, environmental and other safety measures are taken for the safe docking of Ro-ro carrier ships bringing dangerous cargo to the port. The time elapsed during this period is called the safe berthing time of the ship.

Dangerous goods transport units arriving at the port by ships come with fixed tanks (on the vehicle) and are not subject to any storage in the port.



### 3.3.1.1. Waiting Times of Tankers:

- -The period of waiting for tankers arriving by ships or on the vehicle from land at the port limit for the **safe docking time** of the ship for the ships to dock,
- -Delay of ships arriving at the port due to force majeure (weather opposition, failure of the ship, density of sea traffic, etc.), inability to dock at the pier and the waiting time elapsed in between,
- -The time expected due to the arrangement of the traffic times and routes of the vehicles carrying dangerous cargo by the Transport Coordination Center (UKOME) of the vehicles that will disembark from the ship and pass through the port,
- -The time taken for the failure of the vehicles in the port and the time it takes to eliminate the malfunction is the waiting time of the tanker, which is a dangerous cargo, within the port limits.



#### 3.3.1.2. Other packaged dangerous cargoes

Packaged dangerous cargoes belonging to other classes except class 1, class 6 and class 7 come to our shore facility within the scope of the food needs of ships moored in the open. For example; Class 2.2 gases include refrigerant cylinders, class 2.1 gases to meet energy needs, class 3 and class 8 substances for repair or cleaning, and class 9 hazardous loads for the environment.

#### 3.3.1.3. Waiting Periods for other packaged dangerous cargoes:

Within the scope of replenishment services, mineral oil, paint, thinner, oxygen and acetylene cylinders are supplied to ships transiting through the Bosphorus or waiting in the mooring areas of the port of Istanbul. These cargoes are cargo within the scope of IMDG 1.1.1.7, 1.1.2.1 – Part VII Part A Rules 2-2 and 1.1.2.2.1 Annex III – Part I Rules 2-4 and are covered by ship provisions and equipment.

These are the waits made until the completion of the supply service transactions in accordance with the customs legislation and / or due to force majeure reasons such as weather opposition due to the inability of the agency service boats providing service to sail.

During all dangerous cargo replenishment and during short-term waits inside the port, the necessary security measures are taken by other employees, especially the port operator and the operation officer.

# 4. CLASSES, TRANSPORTATION, ESTIMATION/HAZARD, HANDLING OF DANGEROUS SUBSTANCES,

FILE

Dangerous cargoes arriving at ZEYPORT ZEYTİNBURNU PORT by ship and land vehicles are not filled, packed, sent, transported, received and used in the port area. Dangerous cargoes transferred at the port are unloaded from the ship, loaded onto the ship and due to special circumstances, dangerous cargoes are kept in the port for a short time.

## 4.1. CLASSES OF HAZARDOUS SUBSTANCES

The classifications of dangerous goods defined within these regulations are as follows.

#### **CLASSES**

CLASS	PART	CLASS NAME
Class 1		Explosive substances and objects
Class 2		Gases
Class 3		Flammable liquids
Class 4	4.1	Flammable solids, self-reactive substances, polymerizing agents and desensitized solid explosives
	4.2	Substances prone to self-combustion
	4.3	Substances that emit flammable gases when in contact with water
Class 5.1		Oxidizing agents
Class 5.2		Organic peroxides
Class 6.1		Toxic substances
Class 6.2		Infectious substances
Class 7		Radioactive materials
Class 8		Corrosive substances
Class 9		Miscellaneous dangerous goods and objects

**Table 4.1: Hazardous Cargo Classes** 

# 4.1.1. Classification codes



The dangerous goods classification codes are as follows.

	1.1	Substances and objects that are in danger of explosion in mass (An explosion in
	1.2	mass is an explosion that can affect almost the entire charge at once).  Substances and objects that are in danger of ejection but not explosive hazard in
	1.3	mass.  Substances and articles that are a fire hazard or a slight explosion or a slight ejection hazard, or both, but not a mass explosion hazard. These substances and objects are:  (a) Causes a significant amount of radiant heat when burned, or
		(b) They burn one after the other, creating a slight explosion or splashing effect.
Class 1 Subgroups	1.4	Substances and articles with only a low risk of explosion if ignition or reaction commences during carriage. Their impact is largely limited to packaging only, and particles that are considerably larger than can be expected to be ejected to considerable distances. An external fire does not cause almost all the contents of the packaging to explode at once.
	1.5	Insensitive substances that carry the danger of mass explosion, but which, under normal conditions of carriage, are very low in terms of the probability of initiation of the reaction or of going from a state of combustion to an explosion. As a minimum requirement, they must not explode in an external fire test.
	1.6	Objects with extremely low levels of precision that are not explosive in mass.  These objects predominantly contain extremely insensitive substances, and their probability of accidental ignition or propagation is negligible. The risk posed by objects in Subgroup 1.6 is limited to the explosion of a single object only.
	A	Primary explosive substance.
	В	An object containing a primary explosive substance and without two or more effective protective properties. Although they do not contain primary explosive substances, detonation detonators, detonation fuze assemblies and ignition seals and destruction capsules fall into this group.
	С	An object containing explosive material containing propellant fuel or other gradual combustion explosive or similar explosive substance.
	D	A secondary explosive substance, black gunpowder or secondary explosive substance, or an object containing a primary explosive substance and having two or more effective protective properties, without an ignition device and propellant, as applicable to each case.
	Е	Object containing a secondary explosive substance (other than flammable liquid or gel or hypergolic liquid) with propellant without an ignition device.
Class 1 Compliance Groups	F	An object containing a secondary explosive substance with or without a self- ignition device, with or without a propellant (other than one containing flammable liquid or gel or hypergolic liquid).
Groups	G	An object containing a pyrotechnic substance or pyrotechnic technical substance, or an object containing both an explosive substance and an illuminator, incendiary, tear or smoke-causing substance (except for an object activated by water or an object containing white phosphorus, phosphides, pyrophoric substance, flammable liquid or gel, or hypergolic liquid).
	Н	Object containing both explosive material and white phosphorus.
	J	Object containing both explosive material and flammable liquid or gel.
	K	Object containing both an explosive substance and a toxic chemical.
	L	Object that contains an explosive substance or explosive substance and carries a special risk (for example, due to activation with water or the presence of hypergolic liquids, phosphides or a pyrophoric substance) and therefore requires the isolation of each species.
	N	Objects containing predominantly extremely insensitive substances.

A substance or object packaged or designed in such a way that the hazardous effects resulting from its accidental becoming functional are limited to the packaging; if the packaging is spoiled by fire, all explosion or launch effects are limited in such any as not to significating imported intelligation or other emergency response efforts to be made in the immediate vicinity of the packaging.  Compressed gas: substances which, when packaged under pressure squal to or lower than 50 °C are included in this category.  Liquefied gas: A gas this is partially liquid at temperatures above -50 °C when packaged under pressure for transport. Distinctions are made between the following:  Liquefied gas: A gas this is partially liquid at temperatures above -50 °C and is equal to or less than +65 °C;  Low pressure liquefied gas: It is the gas with a critical temperature above +165 °C.  Liquefied gas by cooling: Gas which, when packaged for transport, is partially liquidized due to its low emperature.  Liquefied gas by cooling: Gas which, when packaged for transport, is partially liquidized due to its low emperature.  Dissolved gas: A gas dissolved in a liquid phase solvent when packaged under pressure for transport.  Non-pressurized gases subject to special conditions (gas samples).  Chemicals under pressure: liquids, passes or powders and mixtures thereof that have been pressurized and a conveying fell that meets the definition of compressed or fluenthed gas.  Adsorbed gas: A gas that is adsorbed onto a solid porous material to give an internal vessel pressure of less than 101.3 kPa at 20 °C and less than 300 kPa at 30 °C when packed for transport.  A Sultry  A Sultry  T Poisonous  C C Corrosive (for chemicals under pressure UN 1950)  CO. Advasive, sudicable (for UN 1950)  HC Hammable, corrosive (for UN 1950)  A Class 3  Subgroups  P T Poisonous  Class 4  P Hammable liquids, with a flash point of 60 °C and below:  F P Hammable liquids, soile partial riquids;  FT Hammable liquids, soile partial riquids;  FT Clasmanable liquid									
Compressed gas: substances which, when packaged under pressure for carriage, are completely guscous at +5 0°C; all guscow with critical temperatures equal to or lower than +50 °C are included in this category.  Liquefied gas: A gas that is partially liquid at temperatures above -50 °C when packaged under pressure for transport. Distinctions are made between the following:  1 High-pressure liquefied gas: Gas whose critical temperature above +50 °C. Low pressure liquefied gas: It is the gas with a critical temperature above +65 °C.  2 Liquefied gas by cooling: Gas which, when packaged for transport, is partially liquidized due to its low temperature.  4 Liquefied gas by cooling: Gas which, when packaged for transport, is partially liquidized due to its low temperature.  5 Small, gas-containing, acrosol sprayers and containers (gas cartridges).  6 Other objects containing gas under pressure.  7 Non-pressurized gases subject to special conditions (gas samples).  Chemicals under pressure: liquids, pastes or powders and mixtures thereof that have been pressurized with a conveying fuel that meets the definition of compressed or hiquefied gas.  Adsorbed gas: A gas that is adsorbed onto a solid porous material to give an internal vessel pressure of less than 101.3 kPa at 20 °C and less than 300 kPa at 50 °C when packed for transport.  A Sultry  He Oxidizer  F Plares up  T Poisonous  C Corrosive (for chemicals under pressure UN 1950)  FC Flammable, corrosive (for UN 1950)  FC Flammable, corrosive (for UN 1950)  FC Flammable, corrosive (for UN 1950 and chemicals under pressure)  TF Toxic, oxidizing, corrosive  TOC Toxic, oxidizing, corrosive  TOC Toxic, oxidizing, corrosive  FF Planmable liquids, corrosive  FF Planmable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, or a dove the flash point  FF Planmable liquids, toxic:  FF Planmable liquids, toxic:  FF Planmable liquids, corrosive:  FC Flammable liquids, toxic:  FF FE Flam		S	effects resulting from its accidental becoming functional are limited to the packaging; if the packaging is spoiled by fire, all explosion or launch effects are limited in such a way as not to significantly impede firefighting or other emergency response efforts to be made in the immediate vicinity of the						
packaged under pressure for transport. Distinctions are made between the following:    High-pressure liquefled gase (as whose critical temperature is above -50 °C and is equal to or less than +65 °C;   Low pressure liquefled gase: It is the gas with a critical temperature above +65 °C.   Low pressure liquefled gase: It is the gas with a critical temperature above +65 °C.   Jaquefled gas by cooling: Gas which, when packaged for transport, is partially liquidized due to its low temperature.   Jisovolved gas: Agas dissolved in a liquid-phase solvent when packaged under pressure for transport.   Small, gas-containing, aerosol sprayers and containers (gas cartridges).   Gother objects containing gas under pressure.   To Non-pressurized gases subject to special conditions (gas samples).   Chemicals under pressure: liquids, pastes or powders and mistures thereof that have been pressurized with a conveying fuel that meets the definition of compressed or liquefled gas.   Class 2		1	Compressed gas: substances which, when packaged under pressure for carriage, are completely gaseous at -50 °C; all gases with critical temperatures equal to						
is equal to or less than +65 °C;  Low pressure liquefied gas: It is the gas with a critical temperature above +65 °C.  Liquefied gas by cooling: Gas which, when packaged for transport, is partially liquidized due to its low temperature.  Dissolved gas: A gas dissolved in a liquid-phase solvent when packaged under pressure for transport.  5 Small, gas-containing, aerosol sprayers and containers (gas cartridges).  6 Other objects containing gas under pressure.  7 Non-pressurized gases subject to special conditions (gas samples).  Chemicals under pressure: liquids, pastes or powders and mixtures thereof that have been pressurated with a conveying fuel that meets the definition of compressed or liquefied gas.  Adsorbed gas: A gas that is adsorbed onto a solid porous material to give an internal vessel pressure of less than 101.3 kPa at 20 °C and less than 300 kPa at 50 °C when packed for transport.  A Sultry  He Oxidizer  F Flares up  T Poisonous  C Corrosive (for chemicals under pressure UN 1950)  FC Flammable, corrosive (for UN 1950)  FC Flammable, corrosive (for UN 1950) and chemicals under pressure)  TF Toxic, diamrable, corrosive  CTR Toxic, coxidizing  TPC Toxic, coxidizing, corrosive  TOC Toxic, coxidizing, corrosive  TOC Toxic, oxidizing, corrosive  TOC Toxic, oxidizing, corrosive  TOC Toxic, oxidizing, corrosive  TOC, and an an an an an an an an an an an an an			packaged under pressure for transport. Distinctions are made between the						
C.   Liquefied gas by cooling: Gas which, when packaged for transport, is partially liquidized due to its low temperature.		2							
Siguidized due to its low temperature.									
pressure for transport.  5 Small, gas-containing, aerosol sprayers and containers (gas cartridges).  6 Other objects containing gas under pressure.  7 Non-pressurized gases subject to special conditions (gas samples).  Chemicals under pressure: liquids, pastes or powders and mixtures thereof that have been pressurized with a conveying fuel that meets the definition of compressed or liquefied gas.  A subtry general state of the pressure of less than 101.3 kPa at 20 °C and less than 300 kPa at 50 °C when packed for transport.  A Sultry He Oxidizer  F F Flares up  T Poisonous  C Corrosive (for chemicals under pressure UN 1950)  CO. Abrasive, oxidizable (for UN 1950)  FC Flammable, corrosive (for UN 1950) and chemicals under pressure)  TTC Toxic, corrosive  CTR Toxic, coxidizing  TTC Toxic, coxidizing  TTC Toxic, coxidizing  TTC Toxic, corrosive  CTR Toxic, oxidizing, corrosive  TOC Toxic, oxidizing, corrosive  2.1 Flammable gases (corresponding to groups denoted by a capital F).  Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TTC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids, with a flash point of for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F1 Flammable liquids, toxic:  F1 F1 Flammable liquids, toxic:  F1 F1 Flammable liquids, toxic:  F1 F1 Flammable liquids, corrosive;  F1 F1 Flammable liquids, corrosive;  F1 F1 Flammable liquids, coxic:  F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F		3							
6 Other objects containing gas under pressure. 7 Non-pressurized gases subject to special conditions (gas samples). Chemicals under pressure: liquids, pastes or powders and mixtures thereof that have been pressurized with a conveying fuel that meets the definition of compressed or liquefied gas. Adsorbed gas: A gas that is adsorbed onto a solid porous material to give an internal vessel pressure of less than 101.3 kPa at 20 °C and less than 300 kPa at 50 °C when packed for transport.  A Sultry He Oxidizer F Flares up T Poisonous C Corrosive (for chemicals under pressure UN 1950) CO. Abrasive, oxidizable (for UN 1950) FC Flammable, corrosive (for UN 1950) FC Flammable (corrosive (for UN 1950) and chemicals under pressure) TF Toxic, fammable, corrosive CTR Toxic, oxidizing TFC Toxic, oxidizing TFC Toxic, oxidizing TFC Toxic, oxidizing. TFC Toxic, oxidizing corrosive  2.1 Flammable, corrosive corresponding to groups denoted by a capital F). Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC). Flammable liquids, objects that do not have secondary risk and contain these substances: F1 Flammable liquids, with a flash point of 60 °C and below; F2 Flammable liquids, objects that do not have secondary risk and contain these substances: F1 Flammable liquids, toxic: F2 Flammable liquids, toxic: F3 Objects containing flammable liquids; F5 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1		4							
6 Other objects containing gas under pressure. 7 Non-pressurized gases subject to special conditions (gas samples). Chemicals under pressure: liquids, pastes or powders and mixtures thereof that have been pressurized with a conveying fuel that meets the definition of compressed or liquefied gas. Adsorbed gas: A gas that is adsorbed onto a solid porous material to give an internal vessel pressure of less than 101.3 kPa at 20 °C and less than 300 kPa at 50 °C when packed for transport.  A Sultry He Oxidizer F Flares up T Poisonous C Corrosive (for chemicals under pressure UN 1950) CO. Abrasive, oxidizable (for UN 1950) FC Flammable, corrosive (for UN 1950) FC Flammable (corrosive (for UN 1950) and chemicals under pressure) TF Toxic, fammable, corrosive CTR Toxic, oxidizing TFC Toxic, oxidizing TFC Toxic, oxidizing TFC Toxic, oxidizing. TFC Toxic, oxidizing corrosive  2.1 Flammable, corrosive corresponding to groups denoted by a capital F). Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC). Flammable liquids, objects that do not have secondary risk and contain these substances: F1 Flammable liquids, with a flash point of 60 °C and below; F2 Flammable liquids, objects that do not have secondary risk and contain these substances: F1 Flammable liquids, toxic: F2 Flammable liquids, toxic: F3 Objects containing flammable liquids; F5 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 Flammable liquids, toxic: F7 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1		5	Small, gas-containing, aerosol sprayers and containers (gas cartridges).						
Class 2 Subgroups  Part		6							
Class 2 Subgroups    Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups   Subgroups		7	Non-pressurized gases subject to special conditions (gas samples).						
Adsorbed gas: A gas that is adsorbed onto a solid porous material to give an internal vessel pressure of less than 101.3 kPa at 20 °C and less than 300 kPa at 50 °C when packed for transport.  A Sultry He Oxidizer F Flares up T Poisonous C C Corrosive (for chemicals under pressure UN 1950) FC Flammable, corrosive (for UN 1950) FC Flammable, corrosive (for UN 1950 and chemicals under pressure) TF Toxic, flammable TC Toxic, corrosive CTR Toxic, oxidizing TFC Toxic, flammable, corrosive TOC Toxic, oxidizing TFC Toxic, flammable, corrosive  2.1 Flammable gases (corresponding to groups denoted by a capital F).  2.2 Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances: F1 Flammable liquids, with a flash point of 60 °C and below; C at or above the flash point; F3 Objects containing flammable liquids; F1. Flammable liquids, toxic: F12 Pesticides; F12 Pesticides; F12 Pesticides; F13 C Flammable liquids, corrosive; FTC FTC FTC Flammable liquids, corrosive; FTC FTC FTC Flammable liquids, toxic, corrosive; FTC FTC FTC Flammable liquids, toxic, corrosive; FTC FTC FTC Flammable liquids, toxic, corrosive;	CI a	8	have been pressurized with a conveying fuel that meets the definition of						
He Oxidizer F Flares up T Poisonous C Corrosive (for chemicals under pressure UN 1950) CO. Abrasive, oxidizable (for UN 1950) FC Flammable, corrosive (for UN 1950 and chemicals under pressure) TF Toxic, flammable TC Toxic, corrosive CTR Toxic, corrosive CTR Toxic, oxidizing TFC Toxic, dammable, corrosive TOC Toxic, oxidizing, corrosive 2.1 Flammable gases (corresponding to groups denoted by a capital F).  Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances: F1 Flammable liquids, with a flash point of 60 °C and below; F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point; F3 Objects containing flammable liquids; F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic; F1 F1 Flammable liquids, toxic; F1 F2 Pesticides; F1 F1 Flammable liquids, toxic; F1 F1 Flammable liquids, toxic; F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F1 F		9	internal vessel pressure of less than 101.3 kPa at 20 °C and less than 300 kPa at						
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T Poisonous C Corrosive (for chemicals under pressure UN 1950) CO. Abrasive, oxidizable (for UN 1950) FC Flammable, corrosive (for UN 1950 and chemicals under pressure) TF Toxic, flammable TC Toxic, corrosive CTR Toxic, oxidizing TFC Toxic, flammable, corrosive  TOC Toxic, oxidizing, corrosive  2.1 Flammable gases (corresponding to groups denoted by a capital F). Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC). Flammable liquids, objects that do not have secondary risk and contain these substances: F1 Flammable liquids, with a flash point of 60 °C and below; F2 Flammable liquids, with a flash point of 60 °C and below; F3 Objects containing flammable liquids; F3 Objects containing flammable liquids; F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic: F1 Flammable liquids, toxic:		Не	Oxidizer						
CO. Abrasive, oxidizable (for UN 1950)  FC Flammable, corrosive (for UN 1950 and chemicals under pressure)  TF Toxic, flammable  TC Toxic, oxidizing  TFC Toxic, oxidizing  TFC Toxic, oxidizing  TFC Toxic, oxidizing  TFC Toxic, oxidizing  TFC Toxic, oxidizing, corrosive  2.1 Flammable, non-toxic gases (corresponding to groups denoted by a capital F).  2.2 Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids, with a flash point of transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic;  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC FIC Flammable liquids, toxic, corrosive;  FTC FTC FIC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.		F	Flares up						
CO. Abrasive, oxidizable (for UN 1950)  FC Flammable, corrosive (for UN 1950 and chemicals under pressure)  TF Toxic, flammable  TC Toxic, corrosive  CTR Toxic, oxidizing  TFC Toxic, oxidizing  TFC Toxic, oxidizing  TFC Toxic, oxidizing, corrosive  2.1 Flammable, corrosive  2.1 Flammable, non-toxic gases (corresponding to groups denoted by a capital F).  Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids, with a flash point of for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  FTC FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.		T							
FC Flammable, corrosive (for UN 1950 and chemicals under pressure)  TF Toxic, flammable  TC Toxic, corrosive  CTR Toxic, oxidizing  TFC Toxic, oxidizing  TFC Toxic, soxidizing  TFC Toxic, oxidizing, corrosive  2.1 Flammable gases (corresponding to groups denoted by a capital F).  Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC FTC FTC FTC FTC FTC FTC FTC FTC		С	Corrosive (for chemicals under pressure UN 1950)						
TF Toxic, flammable TC Toxic, corrosive CTR Toxic, oxidizing TFC Toxic, flammable, corrosive TOC Toxic, oxidizing, corrosive 2.1 Flammable gases (corresponding to groups denoted by a capital F).  2.2 Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances: F1 Flammable liquids, with a flash point of 60 °C and below; F2 Flammable liquids, with a flash point of 60 °C and below; F3 F1 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point; F3 Objects containing flammable liquids; FT1 Flammable liquids, toxic: FT1 Flammable liquids, toxic: FT2 Pesticides; FC Flammable liquids, corrosive; FTC FTC Flammable liquids, corrosive; D Liquid explosives with reduced sensitivity.		CO.	Abrasive, oxidizable (for UN 1950)						
TC Toxic, corrosive  CTR Toxic, oxidizing  TFC Toxic, flammable, corrosive  TOC Toxic, oxidizing, corrosive  2.1 Flammable gases (corresponding to groups denoted by a capital F).  2.2 Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.		FC	Flammable, corrosive (for UN 1950 and chemicals under pressure)						
CTR Toxic, oxidizing TFC Toxic, flammable, corrosive TOC Toxic, oxidizing, corrosive  2.1 Flammable gases (corresponding to groups denoted by a capital F).  2.2 Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.			Toxic, flammable						
TFC Toxic, flammable, corrosive  TOC Toxic, oxidizing, corrosive  2.1 Flammable gases (corresponding to groups denoted by a capital F).  Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.		TC	Toxic, corrosive						
TOC Toxic, oxidizing, corrosive  2.1 Flammable gases (corresponding to groups denoted by a capital F).  2.2 Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.									
2.1 Flammable gases (corresponding to groups denoted by a capital F).  2.2 Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.									
2.2 Non-flammable, non-toxic gases (corresponding to groups denoted by the letters Capitol A or O).  2.3 Toxic gases (corresponds to groups denoted by the capital T; Such as TT, TF, TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.		TOC							
Class 3 Subgroups  Class 3 Subgroups  Class 4 Subgroups  Class 5 Subgroups  Class 6 Class 6 Class 7 Subgroups  Class 7 Class 7 Class 7 Class 8 Class 8 Class 8 Class 8 Class 9 Class 9 Class 9 Class 9 Class 1 Class 1 Class 1 Class 1 Class 3 Class 1 Class 3 Class 3 Class 3 Class 3 Class 3 Class 6 Class 6 Class 6 Class 7 Class 7 Class 7 Class 7 Class 8 Class 8 Class 8 Class 8 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9 Class 9		2.1							
TC, TO, TFC and TOC).  Flammable liquids, objects that do not have secondary risk and contain these substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.		2.2	Capitol A or O).						
Substances:  F1 Flammable liquids, with a flash point of 60 °C and below;  F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point;  F3 Objects containing flammable liquids;  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.		2.3	TC, TO, TFC and TOC).						
F F2 Flammable liquids shall be transported or transferred for carriage at a temperature (substances of high temperature) with a flash point of more than 60 °C, at or above the flash point; F3 Objects containing flammable liquids; FT. Flammable liquids, toxic: FT1 Flammable liquids, toxic; FT2 Pesticides; FC Flammable liquids, corrosive; FTC FTC FTC Flammable liquids, toxic, corrosive; D Liquid explosives with reduced sensitivity.			substances:						
Class 3 Subgroups  FT. Flammable liquids, toxic:  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.									
Subgroups  FT. Flammable liquids, toxic:  FT1 Flammable liquids, toxic;  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC FIammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.		F	temperature (substances of high temperature) with a flash point of more than 60						
FT1 Flammable liquids, toxic;  FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC FIammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.			·						
FT2 Pesticides;  FC Flammable liquids, corrosive;  FTC FTC FTC Flammable liquids, toxic, corrosive;  D Liquid explosives with reduced sensitivity.	Subgroups	FT.							
FC Flammable liquids, corrosive; FTC FTC Flammable liquids, toxic, corrosive; D Liquid explosives with reduced sensitivity.									
FTC FTC Flammable liquids, toxic, corrosive; D Liquid explosives with reduced sensitivity.									
D Liquid explosives with reduced sensitivity.									
Class 4.1 F Flammable solids, without secondary risk:									
	Class 4.1	F	Flammable solids, without secondary risk:						

Subgroups		F1 Organic;						
• .		F2 Organic, melted;						
		F3 Inorganic;						
		F4 Objects;						
	FO	Flammable solids, oxidizable;						
		Flammable solids, poisonous						
	FT.	FT1 Organic, toxic;						
		FT2 Inorganic, toxic;						
		Flammable solids, corrosive;						
	FC	FC1 Organic, corrosive;						
	10	FC2 Inorganic, corrosive;						
	D	desensitized solid explosives with no secondary risk;						
	DT	Solid explosives with reduced sensitivity, toxic;						
	2.	Self-reacting substances:						
	SR	SR1 Those who do not need temperature control;						
	SK	SR2 Temperature control required.						
		Polymerizing agents						
	PM	PM1 Those who do not need temperature control;						
	L IVI	PM1 Those who do not need temperature control; PM2 Temperature control required.						
		Substances prone to spontaneous combustion, without secondary risk:  S1 Organic, liquid;						
	S	S2 Organic, solid;						
		S3 Inorganic, liquid;						
		S4 Inorganic, solid;						
		S5 Organometallic;						
	SW	Substances prone to self-combustion, which, when in contact with water, release flammable gases;						
Cl. 4.2	SO	Substances prone to self-combustion, oxidizer;						
Class 4.2 Subgroups		Substances prone to self-burning, poisonous:						
Subgroups		ST1 Organic, toxic, liquid;						
	ST.	ST2 Organic, toxic, solid;						
		ST3 Inorganic, toxic, liquid;						
		ST4 Inorganic, toxic, solid;						
		Substances prone to self-combustion, corrosive:						
		SC1 Organic, corrosive, liquid;						
	SC	SC2 Organic, corrosive, solid;						
		SC3 Inorganic, corrosive, liquid;						
		SC4 Inorganic, corrosive, solid;						
		Objects containing substances and similar substances of no secondary risk						
		which, when in contact with water, emit flammable gases:						
	W	W1 Liquid;						
		W2 Solid;						
		W3 Objects;						
	WF1	Substances that release flammable gases when in contact with water, liquid, flammable;						
Class 4.3	WF2	Substances that release flammable gases when in contact with water, solid, flammable;						
Subgroups	WS	Substances that release flammable gases when in contact with water, solid, self-heating;						
	WO	Substances which, when in contact with water, release flammable gases, oxidant, solid;						
		Substances that release flammable gases when in contact with water, toxic:						
	WT	WT1 Liquid;						
		WT2 Solid;						
	WC	Substances that, when in contact with water, release flammable gases, corrosive:						
		WC1 Liquid;						

		WC2 Solid;					
	WFC	Substances that release flammable gases when in contact with water, flammable, corrosive.					
		Oxidizing substances, objects that are not of secondary risk and contain such substances:					
	He	O1 Liquid;					
	110	O2 Solid;					
		O3 Objects;					
	OF	Oxidizing substances, solid, flammable;					
	OS	Oxidizing substances, solid, self-heating;					
Class 5.1		Oxidizing substances, solid which, when in contact with water, releases					
Subgroups	OW	flammable gases;					
		Oxidizing agents, toxic:					
	GRASS	OT1 Liquid;					
		OT2 Solid;					
		Oxidizing agents, corrosive:					
	OC	OC1 Liquid;					
		OC2 Solid;					
	OTC	Oxidizing agents, toxic, corrosive.					
Class 5.2	P1	Organic peroxides, no temperature control required					
Organic Peroxides Subgroups	P2	Organic peroxides, temperature control required.					
		Toxic substances, without secondary risk:					
	Т	T1 Organic, liquid;					
		T2 Organic, solid;					
		T3 Organometallic substances;					
		T4 Inorganic, liquid;					
	1	T5 Inorganic, solid;					
		T6 Liquid, used in pesticides;					
		T7 Solid, used in pesticides;					
		T8 Samples;					
		T9 Other toxic substances;					
		Toxic substances, flammable:					
	TF	TF1 Liquid;					
		TF2 Liquid, used in pesticides;					
Class 6.1	TO S	TF3 Solid;					
Subgroups	TS	Poisonous substances, self-heating, solid;					
	TPXX /	Toxic substances, when in contact with water, release flammable gases that:					
	TW	TW1 Liquid; TW2 Solid;					
		Toxic substances, oxidizer:					
	CTR	TO1 Liquid;					
	CIK	TO2 Solid;					
		Toxic substances, corrosive:					
		TC1 Organic, liquid;					
	TC	TC2 Organic, solid;					
	10	TC3 Inorganic, liquid;					
		TC4 Inorganic, solid;					
	TFC	Toxic substances, flammable, corrosive;					
	TFW	Toxic substances can flammable, releasing gases when in contact with water.					
	I1	Infectious substances that affect humans;					
Class 6.2	I2	Infectious substances that affect only animals;					
Subgroups	I3	Clinical waste;					
	I4	Biological substances.					
Class 8	C1 C4	Acidic substances					
Subgroups	C1-C4	C1 Inorganic, liquid;					

		C2 Inorganic, solid;					
		C3 Organic, liquid;					
		C4 Organic, solid;					
		Basic substances:					
	G5 G0	C5 Inorganic, liquid;					
	C5-C8	C6 Inorganic, solid;					
		C7 Organic, liquid;					
		C8 Organic, solid;					
		Other corrosive substances:					
	C9-C10	C9 Liquid;					
		C10 Solid;					
	C11	Objects;					
		Corrosive substances, flammable:					
	CF	CF1 Liquid;					
		CF2 Solid;					
		Corrosive substances, self-heating:					
	CS	CS1 Liquid;					
		CS2 Solid;					
		Corrosive substances, when in contact with water, release flammable gases:					
	CW	CW1 Liquid;					
		CW2 Solid;					
		Corrosive substances, oxidizer:					
	CO.	CO1 Liquid;					
		CO2 Solid;					
		Corrosive substances, poisonous and objects containing these substances:					
	C/T	CT1 Liquid;					
	CT	CT2 Solid;					
		CT3 Objects;					
	CFT	Corrosive substances, flammable, liquid, toxic;					
	СОТ	Corrosive substances, oxidizing, toxic.					
	M1	Substances that can endanger health when inhaled in the form of fine dust;					
	M2	substances and objects capable of forming dioxins in the event of fire;					
	М3	Flammable vapor-emitting substances;					
	M4	Lithium batteries;					
	M5	Life-saving tools;					
		Substances harmful to the environment:					
Class 9		M6 Pollutants of the aquatic environment, liquid;					
Subgroups	M6-M8	M7 Pollutant to the aquatic environment, solid;					
		M8 Genetically modified microorganisms and organisms;					
		High-temperature substances:					
	M9-	M9 Liquid;					
	M10	M10 Solid;					
		Other substances and articles which do not conform to the definitions of another					
	M11	class but which pose a danger during carriage					
		1 0 0					

Table 4.2 Classification Codes

# 4.2. Packages and packagings of dangerous goods



### √ Package & Packaging Coding

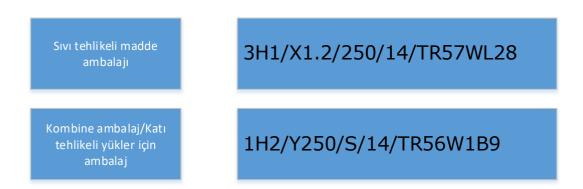


Figure 4.1 Package and Packaging Coding

3H1: Package identification code

3 : Package typeH : Material1 : Category

X: Packing Group
1.2: Specific Gravity

250: Hydrostatic test pressure14: Package production date (year)

TR57WL28: Country code of the certifying body testing the package

1H2: Package identification code

A: Packing Group

250: Maximum gross mass

Q: For solids

14: Package production date (year)

TR56W1B9: Country code of the certifying body testing the package

The meaning of the various numbers and letters on the label of the packaged products in the container is shown in the figure on the side. All Dangerous cargoes transported by packaging by sea are marked according to the UN packing code.

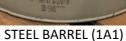
# 4.2.1. Package & Packaging Types

Dangerous cargoes arriving at the port facility shall be packed and packed in accordance with IMDG Code Part 4. All packaging containing dangerous goods must have United Nations (UN) Type Approval, even if they are within any Cargo Transport Unit (CTU).

## **Packaging Types:**









PLASTIC BARREL (1H2)





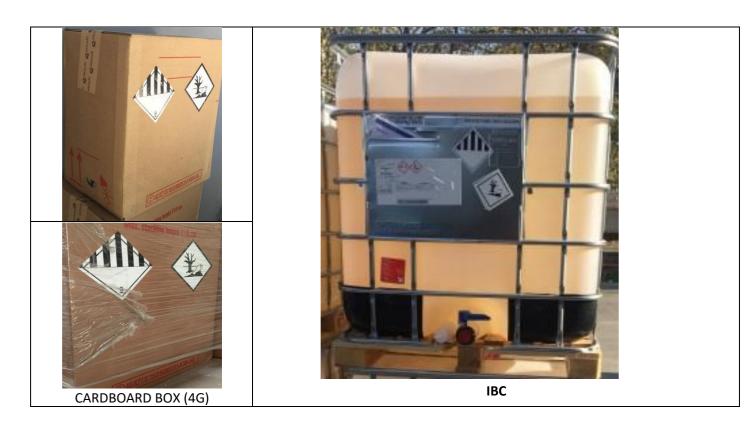
**BAG (5H4)** 



PLASTIC BALL (3H1)



**CYLINDER** 



# IBCs

# Solid or flexible portable packages

- Capacity up to 3.0 m<sup>3</sup> (Packing groups II and III)
- Capacity up to 1.5 m<sup>3</sup> '(packing group I)
- They are ready-made from wood, cardboard, plastic, metal and cloth.
- Their capacity varies in the range of 450-3000 liters.



# 4.3. Plaques, plates, brands and labels for dangerous goods

# 4.3.1. Hazardous cargo plates

	0 1					
				1.5		
	1.1. Explosive	1.2 Explosive	1.3 Explosive	1.5 Explosive		
Class 1	1.6 Explosive	1.4 Explosive		group location		
	1.0 Explosive	1.4 Explosive	<b>A</b>	ŵ.		
Class 2	2	***	2.2 Chaling	2		
	2.1 Flamma	ble Gas	2.2 Choking Gas	2.3 Toxic Gas		
Class 3	3	3				
	Flammable	Liquid				
Class						
4.1 Class 4.2 Class 4.3	4.1 Flammable solids -Self-reactive substances -Polymerizing agents -Solid explosives with reduced sensitivity	4.2 Substances prone to self-combustion	prone to self-			
Class 5.1 Class 5.2	5.1 Ovidining a conta	5.2 Opposis	Describes			
	5.1 Oxidizing agents	5.2 Organic	refoxides			
Class 6.1 Class	6					
6.2	6.1 Toxic substances	6.2 Infectious Substances				
Class 7	RADIOACTIVE	RADIOACTIVE I	RADIOACTIVE III	FISSILE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF T		
		Radioactive Ma	aterials			
Class 8						
	Corrosive Substances					

Class 9			
	Miscellaneous Dangerous loads and objects	Lithium Batteries (9A)	
	Limited Quantity	Excepted quantity	

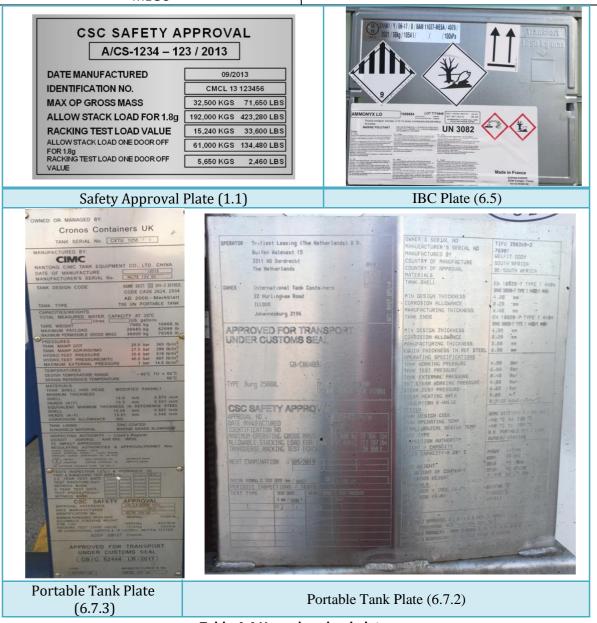
Table 4.3 Dangerous cargo plates, labels and signs



# 4.3.2. Hazardous load plates

FILE

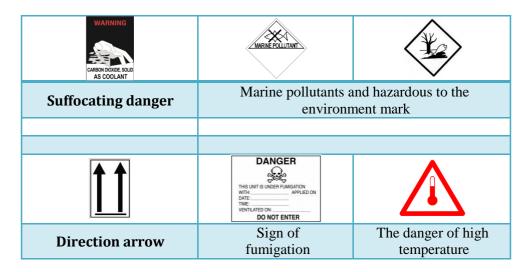
	· ·
- Safety approval plate	- Plate of road tankers
- IBC plate	■ IMO 4 types
- Portable tank plate	■ IMO 6 type
■ T1-T23	■ IMO 8 type
■ T50	■ IMO 9 type
■ T75	
■ MFGC	



**Table 4.4 Hazardous load plates** 

# 4.3.3. Dangerous goods brands

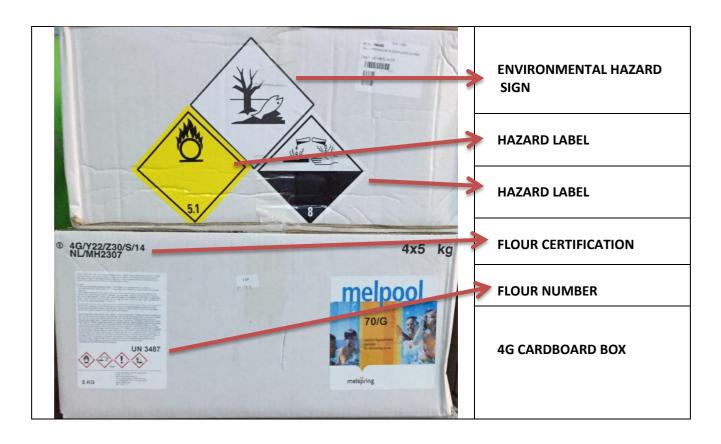
FILED



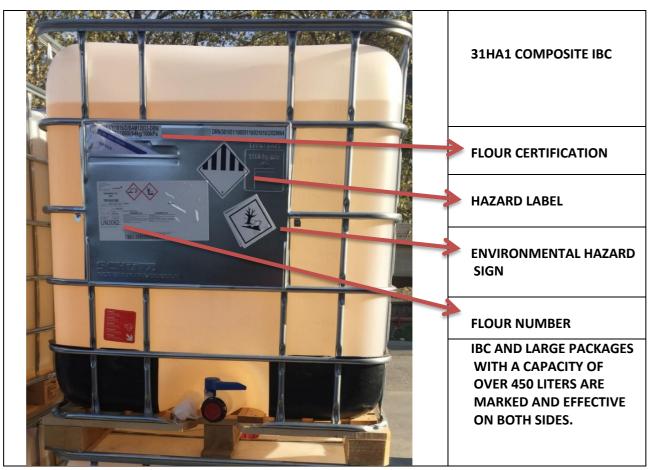
**Table 4.5 Brands of dangerous goods** 

# 4.3.4. Dangerous goods labels

# ✓ Packaging Labeling







IBC (OHK) Labeling

# 4.4. Signs of dangerous goods and packageleme groups



## 4.4.1. Dangerous cargo signs

Examples of marking dangerous goods markings in 4.3.3 were given in 4.3.4.

# 4.4.2. Packing groups for dangerous goods

Hazard labels are divided into 9 in themselves. Although the signs are in the form of labels and plates; labels are kept on the packaging and the plates are kept on the container or vehicle.

Dangerous cargoes transported in containers must be packed & packed according to appropriate standards.

Dangerous cargoes are transported under three types of packaging groups.

Low hazard substances

IIThe loads

III It is in the form of substances with high danger.

Self-reactive substances of classes 1, 2, 5.2, 6.2, 7 and 4.1 do not have a packaging group.

Note: The meanings of the X, Y and Z codes in the UN certification on the packaging;

Packages with X code; packing groups I, II and III Packages with Y code; packing groups II and III

To packages with Z code; for packing group III substances.

# 4.5. Separation tables on board and shore facility by class of dangerous cargo



# 4.5.1. Separation of dangerous cargo on board

To determine the separation conditions for two or more dangerous cargoes, the separation conditions, the Separation Table given in Volume I, 7.2.4 of the IMDG Code, and the provisions of Column 16(b) of the IMDG Code Volume II List of Dangerous Goods (DGL) shall be resorted to. In the event of any conflict, the provisions of Column 16(b) of the Dangerous Goods List (DGL) shall take precedence.

Dangerous cargoes in different cargo transport units or packaged at the port area shall be stacked on the basis of distances in the following sorting table:

Class	2.1	2.2.	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
Flammable gases	Х	Х	Х	2	1	2	2	2	2	Х	4	2	1	Х
Flammable and non-toxic gases	Х	Х	Х	1	Х	1	Х	Х	1	Х	2	Х	1	Х
Toxic gases	Х	Х	Х	2	Х	2	Х	Х	2	Х	2	1	Х	Х
Flammable liquids	2	1	2	Х	Х	2	2	2	2	Х	3	2	Х	Х
Flaming solids	1	Х	Х	Х	Х	1	Х	1	2	Х	3	2	1	Х
Substances prone to self- combustion	2	1	2	2	1	Х	1	2	2	1	3	2	1	х
Substances that emit flammable gases in contact with water	2	Х	Х	2	Х	1	Х	2	2	Х	2	2	1	х
Oxidizing agents	2	Х	Х	2	1	2	2	Х	2	1	3	1	2	Х
Organic peroxides	2	1	2	2	2	2	2	2	Х	1	3	2	2	Х
Toxic substances	Х	Х	Х	Х	Х	1	Х	1	1	Х	1	Х	Х	Х
Infectious substances	4	2	2	3	3	3	2	3	3	1	Х	3	3	Х
Radioactive material	2	1	1	2	2	2	2	1	2	Х	3	Х	2	Х
Corrosive substances	1	Х	Х	Х	1	1	1	2	2	Х	3	2	Х	Х
Miscellaneous hazardous substances and objects	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	х

**Table 4.8 Port Area Dangerous Cargo Separation Table** 

• In the matching structure seen in this table, the distance between the containers for IMDG codes is given in numbers from 1 to 4. Accordingly, the distance between the loads is:

## **Number Meaning**

- o 1Should be kept away
- o 2 Must be separated
- o 3It must be kept separate by means of a whole compartment or compartment.
- 4The entire passage must be separated longitudinally by means of a compartment or compartment
  - X Special cases should be checked in the IMDG code list.

# 4.5.2. Separation of dangerous cargo in the coastal plant

CLASS	2,1	2,2	2,3	3	4,1	4,2	4,3	5,1	5,2	6,1	8	9
Flammable	X	X	X	2	1	2	X	2	2	X	1	X
Toxic and	X	X	X	1	X	1	X	X	1	X	X	X
Toxic gases	X	X	X	2	X	2	X	X	2	X	X	X
Flammable	2	1	2	X	X	2	1	2	2	X	X	X
Flammable solids (including	1	X	X	X	X	1	X	1	2	X	1	X
Substances	2	1	2	2	1	X	1	2	2	1	1	X
Substances	X	X	X	1	X	1	X	2	2	X	1	X
Oxidizing	2	X	X	2	1	2	2	X	2	1	2	X
Organic	2	1	2	2	2	2	2	2	X	1	2	X
Toxic	X	X	X	X	X	1	X	1	1	X	X	X
Corrosive	1	X	X	X	1	1	1	2	2	X	X	X
Various	X	X	X	X	X	X	X	X	X	X	X	X

Figure 4.9 Separation Distances of Dangerous Loads in Warehouse and Outdoor Storage



# 4.6. Separation distances and terms of hazardous loads in warehouse warehouses

FILE

The decomposition in warehouse warehouses is as in Figure 4.9, and the table of meanings of the symbols is as follows.

## **Meanings of Symbols**

Symbol	Packages / IBCs / trailers / platform containers	Closed containers / portable tanks	Open road vehicles / railway cars / open top containers
X	No Need or IMDG DGL Column 16b	No Need	No Need
1	At least 3 m should be separated.	No Need	At least 3 m should be separated.
2	a minimum separation of 6m is required in open areas, hangars or warehouses, a minimum of 12 meters must be separated unless separated by an approved fire wall.	In open spaces, a minimum separation of 3m longitudinally and laterally, longitudinally and laterally of hangars or tanks, a minimum separation of 6m is required, unless separated by an approved fire wall.	In open spaces, a minimum separation of 6m longitudinally and laterally, longitudinally and laterally of hangars or tanks, a minimum separation of 12m is required, unless separated by an approved fire wall.

Figure 4.10 Separation Distances of Dangerous Loads in Warehouse and Outdoor Storage Meanings of Symbols

• The stacking area of IMDG coded cargoes in the port area is the IMDG area.

# 5. HANDBOOK ON DANGEROUS CARGOES HANDLED IN COASTAL FACILITIES

FILTER

Although the port of Zeyport does not carry out operations such as filling, packing, sending, transporting, receiving, using or storing dangerous cargoes, but only the port where the supply services such as loading the dangerous cargoes on the ship and / or unloading them from the ship are carried out, the "Dangerous CargoHandheld Guide" prepared within the port operations describing the dangerous cargoes coming to the port is ready to be given to the port users An example is attached. (ANNEX-10 HAZARDOUS SUBSTANCES MANUAL)

Common sections (definitions, classification and labeling, etc.) in the manual and in the hazardous cargo manual are not included.

#### 6. OPERATIONAL CONSIDERATIONS

# 6.1. Procedures for safely docking, mowing, loading/unloading, sheltering or mooring ships carrying dangerous goods day and night:

Pilotage services are provided for the safe docking of ships carrying dangerous cargo. In addition, the Çımacı (Palamar) Safe Work Instruction is available and presented to the employees in order to make the employees who perform the mooring service at the Zeyport piers work safely.

# 6.2. Procedures for the additional measures to be taken according to the seasonal conditions for the collection and discharge of dangerous cargoes:

The weather forecast is reported from Zeyport Port Facilities before the weather-related emergencies, and salting activities are carried out on the floors where containers carrying dangerous cargo are transported when necessary, taking into account the daily weather reports. As a port operator, meteorological conditions are constantly monitored. In the event of reports of severe storms, operations workers, operators and personnel on duty of vessels attached to the dock shall be notified. The priority is to increase the ship's ropes under all conditions and to ensure that the ship's machinery is always ready for the fastest movement according to the severity of the storm to come. When the wind reaches a level that prevents the safe operation of the coastal cranes, the wind alarm of the crane is activated and the operation is stopped and the cranes are secured. In the event that the ship attached to the dock cuts the rope and starts to leave the dock while the operation is stopped or in progress, the following processes are followed:

- If ship loading or unloading is ongoing and there is a container connected to the crane's spreader in the ship's hold, the crane operator is informed by radio/telephone that the ship has left the dock as quickly as possible.
- The operator moves the crane's cab in the direction of movement in a way that corresponds to the speed of movement of the ship, and at the same time starts to roll out the container in the hold in the fastest and safest way.
- After the container is removed from the ship, it is left at the dock at the nearest place to ensure the safety of the crane.
- Although the ship pilotage and tugboat organization has notified the VHF call channel, as the port operator, it is requested that the tugboats serving by making an emergency call by radio or telephone reach the location of the ship leaving the dock.
- Based on the decision of the captain of the ship, a new rope can be given to the dock and the ship is reconnected
  - or existing ropes are also forged to separate the ship from the dock.
- In the event that the ship under operation leaves the dock for compulsory reasons before the operation is completed, both the Port Authority and the Customs Directorate shall be informed.
- Dangerous loads requiring temperature control are detailed in the Temperature-Controlled Hazardous Load Operation Procedure.

6.3. Procedures for keeping flammable, flammable and explosive materials away from processes that create/may generate sparks and not to operate tools, equipment or tools that spark/may create sparks in hazardous cargo handling, stacking and storage areas:

In order to carry out safe work with dangerous cargoes, the Procedure for Loading, Unloading and Transporting Dangerous Cargo in the Port is available and presented to the employees. Apart from this procedure; on-the-job trainings, IMDG Code Awareness and IMDG Task-Oriented Trainings are carried out for employees from authorized organizations. In addition, in the IMDG Coded Container Safe Work Instruction, it is stated that in the area where IMDG coded cargoes are stored, flame, spark or fire sources such as cigarettes and the cargo should not be around. The necessary safety and health signs are kept at these sites.

# 7. DOCUMENTATION, CONTROL AND RECORDING

# 7.1. What are the mandatory documents, information and documents related to dangerous cargoes, procedures for their provision and control by those concerned:

The port of Zeyport is a port where the dangerous cargoes on the vehicle pass to the highway after being unloaded from the ship and the vehicles carrying dangerous cargo coming by road are put on board. Although this is the main activity subject related to dangerous cargoes, dangerous cargoes transferred from the port It is a port where Bulk Mineral Oils, Paints, Thinners, Oxygen and Acetylene cylinders are also transferred. Since the port of Zeyport, which provides supply services, is a transit point and the dangerous cargoes transferred are filled, packed, labeled, signed, shipped, transported, received, used or stored no special documentation and records are kept regarding dangerous cargoes because the operations are not carried out. However, the port management, operations officers and other port employees must have the necessary information about the dangerous cargoes transferred.

The sender, carrier, receiver, agent or suppliers register the documents related to dangerous cargoes, and it is the responsibility of the sender, carrier, receiver, agent or suppliers, not the responsibility of the port, how all kinds of documentation, control and registration procedures related to the dangerous cargoes transferred are requested. Inspection of the proper identification of dangerous cargoes arriving at the facility, the use of the correct shipping names of the dangerous cargoes, certification, packaging/packaging, labelling and declaring, safe loading and transportation of approved and compliant packaging, containers or cargo handling units (CTUs) and reporting procedures of the results of the control it is the responsibility of the filler, packing, sender, carrier, receiver, unloader and storer of dangerous cargoes. The port management is obliged to control these transactions and must notify the Port Authority and emergency response officers if records and information are requested.

A daily record of all dangerous cargoes entering, leaving or held for a short time at the port site shall be kept by the personnel appointed by the port management as operations officers. These records and information will be provided to the Port Authority and emergency response officers upon request. In the daily records of Zeyport port management, the type, class, entry and exit times and quantity and location of the dangerous cargoes in the port area should be indicated.

#### **DOCS**

- Transport Document,
- Container Vehicle Packaging Certificate
- Documents that must be on board
  - Stowing plan of hazardous cargo and marine pollutants on board
  - Emergency response information
- Other necessary information and documents
  - Air wear certificate (where relevant)
  - o IMDG Code Exemption certificate with special provisions
  - 4.1 Declaration for Self-Reactive Substances, Polymerization Agents and 5.2 Organic Peroxides
- Multi-Mode Transport Form

It is covered under IMDG Code Section 5. Within the scope of 5.4.1.1.1, this information may be transferred electronically via EDP or EDI. Information on dangerous cargoes arriving at the port by road will be communicated to the port in advance.

Safety Data Sheets and Emergency Information will also be requested for each dangerous cargo. Safety Data Sheets should be up-to-date in accordance with the latest regulations and should be prepared in Turkish. For dangerous cargoes arriving at the port using different modes of transport, the delivery of the Multimodal Dangerous Cargo Form to the port authorities is required.

In addition, a Container/Vehicle/Truck Packing Certificate for each cargo transport unit (CTU) containing dangerous cargo will be requested by the port. Vessels with dangerous cargo on which they will call at the port must submit the Stowage Plan as well as the Dangerous Cargo Manifest to the port. In accordance with ADR legislation, there must be transportation documents for cargo transportation units containing dangerous cargo that will be delivered from the port and will go to the customer by road.

# 7.2. Procedure for keeping the up-to-date list of all Dangerous cargoes and other relevant information on the shore facility site regularly and completely

The Field Management Program, which includes the Zeyport software program, includes IMO numbers, tonnage information, and information about the current location of all dangerous cargoes designated as IMO sites. This information is available on the system in case of registration.

7.3. The procedure for checking that the dangerous cargoes arriving at the facility are properly identified, that the dangerous cargoes are used, certified, packaged/packed, labelled and declared, that they are safely loaded and transported to the approved and compliant packaging, container or cargo transport unit, and the procedure for reporting the results of the inspection:

The mandatory rules regarding dangerous cargoes transported in packaged form are set out in the IMDG Code. In the correspondence to be made with other relevant institutions / organizations by the port operating personnel involved in the transportation and handling of the cargoes covered by this Code, and in the cargo documents, the Appropriate Shipment Name and the United Nations Number (UN Number) in the "Dangerous Goods List" in Section 3 of the IMDG Code should be used to identify the cargoes mentioned in the notifications. For this reason, it is the responsibility of the shipper, loader and carrier to classify, plate, label, pack, prepare written instructions about the cargo, give the appropriate UN number, transport documents and all other shipment procedures, detailed information about the dangerous cargoes to be transferred from the port.

# 7.4. Procedures for the Supply and Possession of Dangerous Cargo Safety Data Sheets (SDS)

Dangerous Cargo Safety Data Sheet (SDS): The SDS form, which is a document containing detailed information about the properties of dangerous cargoes and preparations transferred from the port, safety measures to be taken according to the dangerous properties of the substance and preparation in the workplaces where it is located, and the necessary information for the protection of human health and the environment from the negative effects of dangerous cargoes and preparations, shall be kept at the port. If a dangerous substance that has not been transferred before the port is to be transferred, the companies that have a relationship with dangerous cargoes will submit their SDS forms before entering the port area and will be delivered to the operation officers determined by the port management at the port entrance.

# 7.5. Procedures for the supply and possession of the dangerous goods safety data sheet (SDS)

All information and documents received by the port administration from the shippers, carriers and receivers of dangerous cargoes shall be kept for at least three months and submitted to the port authority upon request.

## 8. EMERGENCIES, EMERGENCY PREPAREDNESS AND RESPONSE

# 8.1. Intervention procedures for dangerous loads that pose/may pose a risk to Cana, property and/or the environment and dangerous situations involving dangerous loads

FILE

Collection/unloading, handling, transportation, relocation of dangerous cargoes are carried out with containers, tanks (portable tank/tank containers) and packaged for services such as detection, inspection, sampling, internal filling/unloading.

Information on bulk dangerous cargoes that are not covered by the activity permit of Zeyport Port Operators was not included in the procedure.

#### 8.1.1. Information about IMGD Code

General information about the code is as follows.

- General provisions
- List of definitions
- Classification
- Physical chemical properties of these products
- Requirements for packaging and classification to categories I, II and III
- List of classification of dangerous goods
- *Complete List of Dangerous* Goods, including UN number of goods, appropriate shipping name, class/division, secondary risks, packing groups, etc.
- Provisions regarding limited and excluded quantities
- The dangers they present
- Labelling and signage system that is easy to understand and enables the identification of possible hazards of products
- Recommendations for stacking on board
- Separation tables
- Product or substance United Nations Identification Number (UN Number)
- Documents that must accompany the goods
- Rules for the prevention of marine pollution
- Provisions relating to packaging/containers and tanktainers
- Procedures for the documents required for the shipment of dangerous goods, labelling, signage and transportation
- Construction and testing tests for packaging/bottles/containers, intermediate bulk containers (IBC) and tanks and road tank vehicles
- Provisions relating to carriage, stacking and sorting
- Special provisions in case of accidents, fire precautions and transport of waste
- Other

It also contains the following supplements (annex-3).

- Emergency response, fire and spill procedures
- Medical first aid manual
- Notification procedure in case of accident with dangerous goods
- Stacking in transport units
- Risk-free use of pesticides
- INF Code (International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Waste on Ships)



#### 8.1.2. Load characteristics

The cargoes included in the IMDG Dangerous Goods List are filled and packaged into the cargo transportation units in solid, liquid and gaseous form.

It should be considered that if the **temperature** of the load itself and **the pressure** to which it is subjected change, there may be significant changes in relation to the load. For example, self-reacting substances and organic peroxides tend to undergo strong exothermic decay even without the participation of oxygen (air) and whose temperature is not constant. The same applies to the critical temperature at which, when exceeded, the substance cannot remain in a liquid state. In addition to temperature and pressure changes, the dilution of the main substance of the load or the solution to obtain another product with the main substance can also cause changes in the load. The example of ammonia would be quite revealing for the rule.

Flour 1043 FERTILIZER obtained by using ammonia with free ammonia and agenocidal solution is assigned to non-toxic and non-flammable class 2.2 as dissolved gases while 1005 AMONYAK has class 2.3 toxic gases and side hazard class 8 corrosive properties in the dehydrated state. Ammonia solutions not exceeding 50% are also assigned to Un 2073 and are subject to the classification of non-flammable and non-toxic as dissolved gases. The example of ammonia is very important in terms of understanding this paragraph. When flour is treated with 1005 AMONIC water and is in solution of more than 10% and less than 35%, it ceases to be class 2 and is considered as Un 2672 class 8 corrosive substances.

Reaction rates for chemicals should be defined as changes under changing conditions at a given time. Chemical reaction rates;

- Concentration of the chemical at a given moment
- Temperature/presecurity exposure
- Exposure time
- Quantity (kilograms or liters)

Due to improper use of dangerous goods, the consequences of a chemical reaction can cause:

- Fire
- Explosion
- Loss
- Injury
- Death
- Contamination
- Marine life degradation
- Radioactive

## 8.1.3. Risks of dangerous goods classes



According to their characteristics, dangerous goods are classified as follows.

- **Petroleum by-products** fire and explosion are the main risks. Such as diesel fuel, benzene, liquefied petroleum gas and other fuels.
- Chemical products manufactured and loaded as final products for consumption (industrial, pharmaceutical and agricultural) or as by-products for industrial use. The latter are many of the dangerous goods that are transported and, if not handled properly, can cause great harm to people, transport units and the environment.
- Minerals such as coal, sulfur, mineral concentrates and other metals or asbestos that can cause different diseases, injuries, poisoning or fires.
- **Products of animal or vegetable origin -** as cakes pressed from fish meal, oilseeds and cotton, can cause spontaneous burning, fire or explosions
- Radioactive materials used for various industrial and medical processes, as well as military applications, which can cause immediate harm in high doses or cause cancer and other diseases if exposed to people for a long time, even in small doses.
- Most substances from Class 1 to Class 9 are considered marine pollutants. A marine pollutant is defined as "any substance that would disrupt aquatic organisms living in water."

## 8.1.4. Working with containers and tanks

- <u>Portable</u> tanks containing dangerous cargo must have a plate with markings in accordance with the provisions of the IMDG Code below. These are;
  - o 6.7.2.20 (tanks used for all classes except class 2)
  - 6.7.3.16 (tanks for non-refrigerated liquefied gases and chemicals under pressure T50 tanks)
  - o 6.7.4.15 (tanks for refrigerated liquefied gases T75 tanks)
  - o 6.7.5.13 (tanks for multi-element gas containers)
- Box containers must have CSC safety approval on them.
- Periodic inspections of containers and tanks should be checked.

The use of container lifting equipment and accessories, twist lock operations, fastening at height should be kept in good repair. It should be ensured that the defects of the repaired containers are eliminated.

## 8.1.5. Things to consider and do when working with hazardous loads



#### 8.1.5.1. Class 2 - Gases

#### THINGS TO CONSIDER

- All of them are especially asphyxiant and can also cause ice bites.
- All gases except Class 2.3 toxic gases have pressure relief valves.
- 2.3 Contact of toxic gases with the skin or inhalation of their mists may have a lethal, toxic or harmful effect. (Group measurements are given in Table 1.10).
- Gases are usually heavier than air and accumulate on the ground. Methane and Hydrogen are lighter than air.
- Gases can be collected in sewage, building basements or hollow areas, while lighter gases can be collected in the upper floors of buildings.
- Tanks and tubes can explode as a result of heat or fire.

#### WHAT TO DO

- In the event of large-scale spills and leaks, such as a storage tank or tanker truck, the isolation distance (2.1 meters for flammable gases and 800 meters for other classes) should be insulated.
- Entry into the territory should be prohibited by applying evacuation in the area within the border
- Closed Circuit Clean Air Inhaling Device and personal protective equipmentshould be fully bird named.
- Enclosed areasshould be ventilated before entering the area.
- When the risk of spillage, scattering, leakage or fire in the box container is evaluated, the
  necessity of ventilation before the intervention should be checked and waited without
  intervening in the appropriate time for ventilation when necessary. For example, when 6.1
  toxic substance is detected to leak in the packaging, the container lids should be opened first
  and the cargo should be ventilated for the appropriate time according to the hazard group, and
  then intervened.
- In cases where it is safe to stop leakage, this option should be implemented quickly. For this, if the packaging caps and valves are sufficient, the caps, valves should be closed immediately.
- A flooding resources should be closed before the intervention.
- When the gasescome out of the container into the atmosphere, they can increase 250-300 times by switching from the liquid form to the gas form . The isolated area must be kept safe until the gases are dispersed.

## 8.1.5.2. Class 3 – Flammable Liquids

#### THINGS TO CONSIDER

- If there is a safety data sheet for the cargo, the flash point should be determined from Part 9.
- Regardless of the flash point, those with <u>a boiling point of 35 °C</u> and below are overly flammable liquids and vapors assigned to the H224 hazard expression.

- Those whose flash point is below 23  $^{\circ}$ C are highly flammable liquids and vapors assigned to the H225 hazard expression.
- Those whose flash point is between 23 °C and 60 oC and whose boiling point is above 35 °C are liquid vapors that are assigned to the H226 hazard expression and ignited.
- Some of them are carcinogenic.
- H350 hazard expression may lead to cancer.
- The harmful expression H351 is suspected of causing cancer.
- H350i can cause cancer by inhalation of the expression harmfulness.
- Statements of harm to health should be checked in part 2 of the safety data sheets.
- Vapours of flammable liquids (PN<36) with a low flash point can be ignited by static electricity or an ignition source.
- The tank may explode as its internal pressure will rise as a result of heat or fire.
- Steam explosions can occur indoors, outdoors or in sewers.
- The discharge can cause contamination.
- Foam applicationshould be constructed to prevent steam.



#### WHAT TO DO

- Loads with the hazard expression H226 do not immediately burn when some loads encounter a source of flame. For example, diesel fuel. When such load mixes with loads with the hazard expression H 224 or H225, the flash points and starting boiling points may change and combustion may occur.
- Static electricity should be combated for all charges with flammable harmful expressions.
- Interventions in cargo handling units such as box containers or IBC tanks should be considered
  as small-scale spills, leaks and the area should be isolated. Personnel trained in the use of
  portable fire extinguishers can intervene before the fire grows.
- Load carrying units with an average of 20-30 tons of actual load, such as portable tanks, should
  be considered as spills and leaks with a large diameter and should be prohibited from entering
  the zone by applying unloading in areas within the limits of the isolation distance. In such fires,
  the behemehal fire brigade should be notified and any other flammable objects in the vicinity
  should be removed from the area.
- The personnel who will intervene must discharge the static electricity on it.
- Closed Circuit Fresh Air Inhalation Device and personal protective equipment should be used for intervention.
- Load carrying units should be ventilated by opening the covers beforehand.
- In cases where it is safe to stop leakage, this option should be implemented quickly. For this, if the packaging caps and valves are sufficient, the caps, valves should be closed immediately.
- A flooding resources should be closed before the intervention.

#### 8.1.5.3. Class 4 Loads

Loads of this class should be evaluated separately as 4.1, 4.2 and 4.3.

- 4.1 loads; It consists of flammable solids, self-reacting substances, polymerizing agents and solid explosives with reduced sensitivity.
- 4.2 loads; consists of substances prone to spontaneous combustion, and
- 4.3 loads; When there is a side hazard of substances 4.3 (e.g. 4.3 + 6.1) or when it itself is a side hazard of another class (8 + 4.3), it should be treated with caution, as they are generally considered to be highly dangerous substances. If it is a side hazard or, if it is a secondary hazard,

the precautions of the main hazard must be taken into account. For example, while Un 2011 MAGNESIUM PHOSPHIDE is a class 4.3 substance, at the same time its side hazard is 6.1 toxic substance and the hazards that may occur with inhalation should be taken into consideration.

#### THINGS TO CONSIDER

- The load can burn with heat and sparks or with air.
- Water can react violently. Class 4.3 clauses shall not be interfered with in any way.
- Attention should be paid to the side hazards. It should be considered that toxic gases may be formed. The group measures in Table 1.10 should be taken into account.
- The discharge can cause contamination.



#### WHAT TO DO

- Closed Circuit Fresh Air Inhalation Device and personal protective equipment should be used for intervention.
- The danger zone should be isolated and entry should be prohibited.
- The opposite direction of the wind should be taken and low areasshould be avoided.
- Water should be prevented from entering the containers.
- Water or foamshall not be used for class 4.3 loads as intervention equipment.
- For magnesium, dry sandshould be used.
- In enclosed spaces or if the fire cannot be extinguished, it should be moved away from the area and left to burn.

#### 8.1.5.4. Class 5 Loads

The loads belonging to this class are 5.1 oxidizing substances and 5.2 organic peroxides.

## THINGS TO CONSIDER

- Liquid thatx-jin can explode in contact with hydrocarbons such as asphalt, oils, fuels.
- Although they themselves are not flammable, they increase the commemorations and outbursts.
- Oral, dermal and mist have toxic and harmful effects if inhaled.
- Contact with eyes and skin can cause burning.
- The current can cause water pollution.
- These substances can ignite other flammable substances.
- Their reaction with fuels is severe.
- It can produce toxic smoke. The group measures in Table 1.10 should be taken into account.

## WHAT TO DO

- The danger zone should be isolated and entry should be prohibited.
- The position should be taken in the opposite direction of the wind and stay away from low areas for heavier than airborne substances.
- Load carrying units should be ventilated by opening the covers beforehand.
- Closed Circuit Fresh Air Inhalation Device and personal protective equipment should be used for intervention.

- Flammable substances should be kept away from spilled, leaking or scattered materials.
- Loads in the danger zone should not be touched and walked on.
- Then, for disposal, a pit must be created to collect the scattered liquid.
- Water should be prevented from entering the containers.

#### 8.1.5.5. Class 6.1 Toxic Substances

#### THINGS TO CONSIDER

- Poisons can be in the form of liquids, gases or solids. (Extensive information on gases is given under class 2).
- This class of substances can have a lethal, toxic or harmful effect upon ingestion or contact with the skin.
- Their containers can be very diverse, from paper bags to large tanks.
- Safety data sheet Part 13 should be examined and LD 50 oral and dermal toxicity data and LC<sub>50</sub> toxicity data by inhalation of powders and mist should be considered.
- The table below is a group of measurements by inhalation of oral, dermal and dusts and mist.



Oral toxicity LD50 (mg/kg)	Hazard Statement		Dermal toxicity LD50 (mg/kg)	Hazard Statement		Toxicity by inhalation of dusts and mist LC50 (mg/l)	Hazard Statement	
≤ 5.0	H300	Deadly if swallowed	≤ 50	H310	Fatal in contact with skin	≤ 0.2	H330	Fatal if inhaled
>5.0 and ≤ 50	H301	Toxic if ingested	>50 and ≤ 200	H311	Toxic in contact with skin	>0.2 and ≤ 2	H331	Toxic if inhaled
>50 and ≤ 300	H302	Harmful if swallowed	>200 and ≤ 1000	H312	Harmful in contact with skin	>2.0 and ≤ 4.0	H332	Harmful if inhaled

Table 1.10. Toxic substances, gases group sizes

## WHAT TO DO

- The danger zone should be isolated and entry should be prohibited.
- Stand in the opposite direction of the wind.
- Stay away from low areas.
- Closed Circuit Fresh Air Inhalation Device and personal protective equipment should be used for intervention. Loads with H330 and H331 hazard expressions should not be intervened without a half-face mask and googli type glasses or full-face mask.
- Boots, gloves, overalls, face masks and goggles must be used to intervene in loads with H310, H311 and H312 hazard expressions.
- Hemust try to extinguish the fire from a safe distance.
- Water used in fire extinguishing should be accumulated for disposal.
- If the fire cannot be intervened in the first 3 minutes or if it cannot be extinguished even though it is done, it should be considered as a large fire and the fire department should be notified and withdrawn and the load carrying unit or loads should be left to burn.
- Intervention in the danger zone should be taken into consideration by constantly observing the direction changes of the wind and a position should be taken in the direction of the wind

instantly.

#### 8.1.5.6. Class 8 Corrosive Substances

#### THINGS TO CONSIDER

- A significant majority of the loads belonging to this class are diluted to the plain.
- Water can be used if the side hazard of these water-soluble substances is not class 4.3.
- Awater curtain should be used to lower the buhar clouds in the air.
- Stop the flowshould be done, it can cause water pollution.
- When neutralization is used in the container, it is not recommended because it may return to heat and pressure.
- Contact with eyes andskin can cause burning and permanent damage.
- Inhalation of fumes can be harmful and toxic.
- Some of these substances can ignite other flammable materials (wood, paper, oil).
- Although they are of the same class, loads with alkaline and acid properties must be separated
  from each other. For this, the pH values should be examined in the safety data sheet Part 9.
   Strong acids (pH below 3) and strong alkalis (above pH 11) should be prevented from coming
  into contact with each other in cases of spillage, scattering or leakage.



## WHAT TO DO

- The danger zone should be isolated and entry should be prohibited.
- Closed Circuit Fresh Air Inhalation Device and personal protective equipment should be used for intervention.
- Loads in the danger zone should not be touched and walked on.
- If it can be done safely, the leakageshould be stopped.
- For subsequent disposal, a well must be drilled at a remote point of liquid scattering.
- Intervention personnel must wear protective clothing.

## 8.1.5.7. Class 9 Miscellaneous Dangerous Goods and Articles

## THINGS TO CONSIDER

- Some of the loads belonging to this class are burning, but they do not ignite easily.
- Containers can explode when heated.
- Some of them can be carried warm.
- Inhalation of the substance can be harmful.
- Contact with the substance can burn the skin and eyes.
- Inhaling asbestos dust can cause destruction to the lungs.
- Fire may produce irritating and/or toxic gases.

## WHAT TO DO

- The danger zone should be isolated and entry should be prohibited.
- Closed Circuit Fresh Air Inhalation Device and personal protective equipment should be used

for intervention.

- Liquid leaksshould be collected with sand or other absorbents.
- Loads in the danger zone should not be touched and walked on.

## 8.1.6. Things to consider and do when working with hazardous loads



The risk assessment must comply with the OCCUPATIONAL HEALTH AND SAFETY RISK ASSESSMENT REGULATION . The analysis should cover not only employees, but also non-permanent employees, ship crews, visitors who will be affected by the activity. Collective protection measures should be considered before individual protection.

Risk assessments should be updated during periods in the aforementioned regulations and immediately after any incident or when there are significant changes in operations. Many accidents and losses can be prevented by an appropriate and adequate assessment of the risks arising from work and the adoption of appropriate control methods.

The risk assessment should record the significant hazards and risks of the operation together with the relevant control measures. Risk assessments in port operations should take into account variables such as tidal changes, weather, trim, cargo list, cargo/cargo and ship dynamics.

# 8.2. Information on the capability, capability and capacity of the coastal facility to respond to emergencies.

## **8.2.1.** Shore resort emergencies

Accordingly, coastal facility emergencies are as follows;

- Fire
- Explosion
- Emission of hazardous chemicals
- Natural disasters
- Incidents and accidents requiring first aid and evacuation
- Food poisoning and
- It is in the form of sabotage.

The spread of hazardous chemicals, which is the subject of the dangerous cargo handling guide, will be covered.

## 8.2.2. Contingency plan

The objectives of the shore facility hazardous cargoes contingency plan are as follows.

- Always be ready for emergencies related to dangerous cargoes,
- Rapid and effective isolation of emergencies caused by hazardous loads,
- Managing the hazardous situation until fire, fire brigade, AFAD, health and law enforcement forces control the emergency situation to the coastal facility,
- Assisting the incoming emergency service teams by informing them and providing equipment support,

- Protecting all employees and those in the environment from the effects of an emergency

## 8.2.3. Emergency management

The emergency situations management system caused by hazardous loads is a tool used to solve the coastal facility within the framework of a continuous improvement approach by addressing it systematically and in accordance with the general strategies and should follow the following processes. These are;



- Prevention: Taking regulatory, physical and operational measures to prevent emergencies caused by dangerous loads and to minimize their effects,
- Preparedness: Mobilization of regulations and resources to prevent emergencies caused by threatening loads,
- Intervention: Physical and operational activities carried out to minimize the effects of an emergency caused by dangerous loads after it occurs,
- Renovation: Renewal of the section(s) of the coastal facility affected by hazardous loads as soon as possible and arrangements to ensure that those exposed recover from this situation as quickly as possible.

## 8.2.4. Shore facility de facto emergencies

In case of detection, inspection, sampling, collection / evacuation and all kinds of handling, parking of vehicles and withdrawal from the park, the following emergencies are possible in the coastal facility in case of detection, inspection, sampling, discharge of cargo carrying units containing dangerous cargo.

- Accident of load handling units containing dangerous cargo
- Accidents that may occur during detection, inspection or sampling processes
- Possibility of fire
- Possibility of spillage, scattering and leakage of chemicals
- First aid
- Events that require evacuation
- Determination of areas to be isolated
- The possibility of sabotage

## **8.2.5.** Preventive measures

## 8.2.5.1. Fire precautions

## Preventive measures

- Periodic inspections of the electrical installation are carried out. There are competent personnel to intervene in case of possible failures.
- There are controlled restricted areas where smoking is allowed.
- Periodic inspections of the gas cylinders used in the workshop are checked.
- Lightning rod is available and periodic inspections are complete.

- When not in use, electronic devices are unplugged and not left unchecked.
- Periodic inspections of boilers are carried out.
- Entrances to the boiler room are limited and unauthorized personnel are not allowed.
- The signs and labels of the chemicals that the coastal facility takes to the port for their own use are checked. Information about the content of any chemical packaging can be easily obtained from the signs and labels on the packaging.
- Chemical wastes are also a storage area and landfills are made.



## Restrictive measures

- There is a fire fighting team.
- The training of the fire fighting team members is complete and is being renewed.
- Fire drills are held periodically.
- There are emergency exit doors and exit/exit warning signs for rapid evacuation in case of fire.
- Firefighting equipment is immediately accessible within the coastal facility.
- Fire extinguishing equipment is checked regularly.
- Emergency valves are quickly closed to cut off the flow of natural gas.
- The coastal facility has 12 hydrants, 12 fire cabinets, 60 units of 6 kg, 60 units of 12 kg and 20 units of 50 kg ABC dry chemical powder, 20 units of 10 kg CO₂ fire extinguishers.
- Fresh water is used for fire hydrants. It has the ability to use sea water against water interruption. It also has the ability to store 10 tons of water.

## 8.2.5.2. Precautions for explosion

## Preventive measures

- The coastal facility has an explosion protection document.
- Areas in accordance with the provisions of the "REGULATION ON THE PROTECTION OF EMPLOYEES FROM THE DANGERS OF EXPLOSIVE ATMOSPHERES" were identified and hung in the areas related to the plate.
- Electrical equipment used in areas within the explosive atmosphere safety distance is in the appropriate category.
- Safety data sheets of the chemicals used are easily accessible.
- The presence of mechanical and natural ventilation.

## Restrictive measures

- Evacuation plans are posted in visible places of the shore facility, where emergency exits and portable fire extinguishers are also shown.
- Firefighting equipment is immediately accessible within the coastal facility.
- Fire extinguishing equipment is checked regularly.
- Emergency valves are quickly closed to cut off the flow of natural gas.

## 8.2.5.3. Precautions for natural disasters

Limiting and preventive measures are taken against the possibility that dangerous loads may cause dangerous situations as a result of natural disasters such as earthquakes, excessive rainfall, storms (over 60 km / h), strong snowfall in the coastal facility.

#### Preventive measures

- Maintenance and inspections of rainwater channels around hazardous cargo stacking areas are carried out regularly.
- The entrance to the coastal facility A gate is blocked against heavy rains and the flood is prevented.
- Snow fighting equipment is used to keep roads open against excessive snowfall.
- Entry to empty container areas is restricted during storms.



#### Restrictive measures

- Ground reinforcement is carried out in case of deterioration of the landforms that may occur on the ground during an earthquake by dangerous loads.
- Hazardous cargo handling equipment is securely placed against tipping over.
- Loads containing dangerous loads are prevented from being stacked near the building.
- A search, rescue and evacuation team has been formed.
- Training is provided to the teams.
- Drills are held on regular periods.

## 8.2.5.4. Measures for sabotage

#### *Preventive measures*

- The entrances to the stacking area, warehouse and IMDG area are controlled.
- Hazardous cargo areas are constantly monitored by security cameras.
- For coastal facility needs, the entry to the areas where flammable, flammable materials are stored is restricted and the entry of unauthorized personnel is prevented.
- Records of the drivers of vehicles entering the port are kept.

#### Restrictive measures

- The first thing to be done in the detection of sabotage in hazardous cargo areas is to provide behemehal information to law enforcement agencies.
- Emergency sirens should sound.
- Evacuation plans indicating emergency exits should be in visible places in workplaces.

## 8.2.5.5. Precautions for dangerous loads

## Preventive measures

- Whichever is possible for chemical emissions that may occur from cargo carrying units containing dangerous cargo; their valves must be closed, the cargo covers must be closed, their packaging must be closed.

- Loads are stacked in accordance with the separation provisions of MSC.1/Circ.1216.
- There is natural ventilation for loads in the hold.
- Persons without a permit are restricted from entering the warehouse, IMDG site and G7 stacking area.

#### *Restrictive measures*

- Personnel and cargo interests that provide services such as detection, inspection, sampling use personal protective equipment appropriate to their work.
- Personnel are trained to use appropriate personal protective equipment according to the hazard class.
- Employees in the field are capable of using portable fire extinguishers in case of fire caused by dangerous loads.
- An evacuation plan is available to ensure rapid evacuation against possible chemical spread and leakage.
- Evacuation plans hang in visible places at the coastal facility.

## **8.3.** Regulations on the first response to accidents involving dangerous cargo (Procedures for first intervention, first aid facilities and capabilities, etc.).



Emergency response methods that should be applied in case of emergency situations caused by dangerous loads in the coastal facility, such as warning, search, rescue, evacuation, communication, first aid, fire fighting; fire, explosion, natural disasters and sabotage.

When the emergency situation caused by dangerous loads occurs, the negativities that may be encountered during the intervention are as follows.

- Difficult conditions of struggle; inability to intervene closely, transportation difficulties, weather conditions, high risk of freight transport units.
- Emotional and psychological negativity; the fact that there is a time constraint to intervene in the dangerous situation that arises as a result of emergencies caused by dangerous loads, whether there are dead or injured, the deep responsibility felt to help.
- Physical fatigue; performing heavy work for intervention, exhaustion as a result of long intervention times.

## **8.3.1.** Emergency response to fire

- At a height of 0.90-1.60 meters from the ground and every 60 meters, there is a fire alarm button and an emergency warning sign.
- When a fire is detected, information such as the class, subclass, side hazard, if any, packaging group, Flour number, full shipment name of the dangerous cargo will be determined and reported to the fire brigade at the phone number 110.
- In case of fires caused by dangerous cargo, the fire brigade will come to the shore facility and make maximum use of the existing facilities of the facility until the time it takes to intervene.
- When there is a fire caused by dangerous loads in the warehouse, openings such as doors and windows that are kept open for ventilation will be closed to prevent the growth of the fire.
- Emergency response teams will take the necessary actions to evacuate other employees and

provide guidance for the efficient use of the emergency exit.

## 8.3.2. Emergency response to an explosion

- To the upper supervisor in a rapid manner that detects the explosion caused by dangerous loads; provide the area where the explosion occurred, the mark, label and orange plate information on the load carrying unit caused by the explosion, if any.
- Upon noticing an explosion, the nearest emergency button must be pressed.
- Fire brigades and other emergency services should be called to inform about the explosion and the injured, if any.
- In line with the instructions of the emergency teams, exit from the emergency exit and go to the emergency assembly area. It should be included in the counting to be made here.
- Personnel designated from emergency teams should cut off the natural gas and electricity of the workplace. It should act by checking whether explosive chemicals pose a danger.
- The firefighting team must begin extinguishing operations with emergency equipment to prevent a fire from starting or growing after an explosion.
- The search and rescue and evacuation team must ensure that employees are evacuated from the area where the explosion occurred and from the entire workplace and that they reach the safe place. After helping the injured with a safe place, the search and rescue operations of the injured should begin within the framework of the training they receive.
- The first aid team should provide first aid to the wounded.
- Officials should be informed about the explosion. Contributions should be made to the reports prepared afterwards.



## **8.3.3.** Emergency response to natural disasters

AFAD resources can be utilized when dangerous loads are exposed to natural disasters such as earthquakes in the coastal facility, excessive rainfall, storms (over 60 km/h), heavy snowfall. Accordingly;

- Everyone should be notified with the emergency notification button. If this is not possible, those around should be warned audibly.
- Those who are in the closed area should prefer columns, under the beams, high places as the closest first protection zone according to the type of disaster. Those in the open area should remain in the protection zone.
- The evacuation process should begin immediately and go to safe places.
- If there are any injured people, first aid teams should intervene .
- The valves should be checked for leaks.
- Natural gas and electrical installations should be turned off.

## 8.3.4. Emergency response requiring first aid and evacuation

- First aid teams should be informed quickly for situations requiring first aid and evacuation caused by dangerous loads.
- Members of the first aid team should intervene with the wounded and relay information to the superior supervisors.
- If necessary, an ambulance should be used and even 112 should be asked for support.
- The directions of the workplace physician and occupational safety specialist should be followed.

## 8.3.5. Emergency response in cases of sabotage

As soon as sabotage occurs in hazardous cargo storage areas, the supervisor must immediately be notified.

- Suspicious package finding
- Suspicious person identification
- Action or demonstration in hazardous cargo areas (transport vehicle drivers or employees should also be considered).
- Security guards should be notified.
- Emergency services should be informed.
- A safe area must be chosen and the position maintained.
- One should not participate in the suspicious situation as a bystander.
- They should act according to the relevant emergency response procedures such as fire and explosion.

Coastal facility "EMERGENCY MANAGEMENT PROCEDURE" is applied.

## 8.5. Accident reporting procedures



According to Article 11-(1) I of the Regulation on the Carriage of Dangerous Cargo by Sea and the Safety of Loading Regulations on the *Responsibilities of the Coastal Facility Operator*; Accidents related to dangerous cargoes, including accidents at the entrance to closed areas, must be reported to the port authority.

During the transport of dangerous goods by sea or during their handling and/or storage in coastal facilities; An incident or chain of events involving hazardous substances that has harmful consequences such as death, injury, property damage and environmental pollution is defined as an accident. Accordingly, in the event of an undesirable accident in the coastal facility, the following accident notification form will be filled out and submitted to the port authority.

In the directive, the incident is not included in the accident notification form because it is considered as a series of events or incidents other than the accident that takes place in connection with operations and activities and endangers the safety of people or other persons and the environment, which may be dangerous if not corrected, but the form can be used in both accident and incident notification.

ACCIDENT NOTIFICATION FORM		
S.No	Notification subject	Explanation
1	When the accident occurred,	
2	If the accident is known, how it occurred and why,	
3	The place where the accident occurred (coastal facility and/or ship), its position and area of impact,	
4	If there is a ship involved in the accident, information (name, flag, IMO number, owner, operator, cargo and quantity, name of the captain and similar information),	
5	Meteorological conditions,	
6	The UN number, the appropriate carriage name (to be based on the legislation specified in the definition of dangerous goods) and quantity of the dangerous goods,	
7	The hazard class of the dangerous goods or the sub-hazard section, if any,	
8	Packaging group, if any, of hazardous substances,	
9	Additional risks of hazardous substances, such as marine pollutants, if any,	
10	Marking and label details of the dangerous goods,	
11	Characteristics and number of the packaging, cargo transport unit and container in which the dangerous goods are carried, if any,	
12	Manufacturer, sender, carrier and receiver of dangerous goods,	
13	The extent of the damage/pollution that has occurred,	
14	The number of injured, dead and missing, if any,	

15	Emergency response practices by the coastal facility for the accident.	

## 8.6. Method of coordination, support and cooperation with official authorities



All accidents involving Dangerous Goods will first be coordinated with the Port Authority. With the notification of the Port Authority, support and cooperation will be provided with the Hospital, Fire Department, AFAD, and the relief units of neighboring facilities.

In the event of signs of a possible explosion, fire or emergency in the adjacent facility;

- First of all, measures will be increased in the facility,
- Teams will be prepared to assist the neighboring facility,

Given the urgency of the situation and the extent of the danger, assistance and support teams will be deployed to respond to the incident when it is assessed that they do not have the opportunity or time to seek assistance.

By evaluating the class, quantity and hazard risk of the cargoes in the hazardous cargo area and the field of cargoes, preparations will be made for measures such as evacuation and dilution of the cargoes, and lifting the ship instead of anchor if there is a ship in the interface.

Providing support for measures outside the coastal facility

In order to provide support to the measures taken outside the coastal facility in case of emergency, the facility communication coordinator will be contacted for the support to be provided from the Hospital, Fire Department, AFAD and neighboring facilities.

## Emergency dialing phones

Fire Brigade (Fire Notification)	110
Ambulance	112
Policeman	155
Gendarmerie	156
Natural gas	187
ISKI	185
BEDAS	186
HOSPITAL (İstanbul Educ. Research. Hast. Zeytinburnu Pol.)	0(212)415-2053
Provincial Disaster and Emergency Directorate (AFAD)	0(212)600-0600
Fuzz	153
Electrical fault	186
Coastal facility manager: OSMAN KITAY	0(532)362-3126
Poison Advice	114

8.7.	Emergency evacuation plan for the removal of ships and vessels from the
	coastal facility in case of emergency.

FILE

The coastal facility "SHIP EMERGENCY HAZARD CONTROL PROCEDURE" is applied.

## 8.8. Procedures for handling and disposal of damaged dangerous cargoes and wastes contaminated with hazardous loads

FILE

There is a specially designated area for operations for damaged cargo handling units and packages containing dangerous cargo. The property features 2 leakage pools with a capacity of 40 feet containers. There is a suitable drainage system for the discharge of load residues poured into the leakage pools.

When the container containing such loads is ready for services such as detection, inspection or sampling with the leakage caused by the damaged packaging into the pool, it is cleaned before the process and the service is provided after the laying process.

Damaged cargo transport units that carry out port exit procedures are taken out of the behemehal facility by taking the necessary precautions for the environment when the danger of leaked packaging is minimized, or the service is provided after the necessary measures are taken to provide service.

In addition, there is a portable leakage pool with a capacity of 2 tons for damaged packages that do not cause any damage to the container and only for damaged packages that are caused by the damage of the packaging itself and where there is a risk of contamination of other packages with load residue. It is used for packaging load damages that may occur during detection, inspection or sampling processes and service is provided after the preparation of the necessary minutes after the leakage is over and the packaging is cleaned.

Wastes left over from the cleaning of cargo carrying units containing damaged hazardous cargo are considered as hazardous waste. These wastes are classified according to the hazard class of the cargo. The classification for hazard wastes belonging to different hazardous classes that do not react with each other is carried out according to the provisions of IMDG Code 2.0.3.6 hazard priorities. This also applies to waste of sorbent material or sample containers that may occur after sampling hazardous cargoes.

## 8.9. Emergency drills and their records.



Workplaces are drilled at least once a year to prepare for emergencies. Before and after the exercise, deficiencies in terms of preparation for dangerous loads and emergency situations are identified and these are corrected and carried out with preventive actions.

Personnel working with dangerous loads are made ready for a possible emergency by rehearsing emergency situations with drills. All of the exercises are scripted, informed and unannounced. After the exercise, the report is prepared and recorded.

## Exercises;

- Offshore ISPS exercises
- Exercises to improve the ability to use portable fire extinguishers
- Dangerous loads are in the form of spillage, scattering drills .

## **8.10.** Information on fire protection systems.



 ${\it Coastal\ facility\ "EMERGENCY\ MANAGEMENT\ PROCEDURE"\ is\ applied.}$ 

# 8.11. Procedures for the approval, inspection, testing, maintenance and readiness of fire protection systems.



Coastal facility "EMERGENCY MANAGEMENT PROCEDURE" is applied.

# 8.12. Precautions to be taken in cases where fire protection systems do not work.

FILE

Coastal facility "EMERGENCY MANAGEMENT PROCEDURE" is applied.

## 8.13. Other risk control equipment.



 ${\it Coastal\ facility\ "EMERGENCY\ MANAGEMENT\ PROCEDURE"\ is\ applied.}$ 

## 9. OCCUPATIONAL HEALTH AND SAFETY

## 9.1. Occupational Health and Safety Measures

In accordance with the Occupational Health and Safety rules and practices at the Zeyport port, all personnel are trained in the periods and periods specified in the legislation. In Zeyport port, services are obtained from the workplace physician and occupational safety specialist in terms of occupational health and safety. In this way, health surveillance of port employees is carried out and it is aimed to prevent occupational accidents by developing an occupational safety culture. The findings and recommendations of the workplace physician and occupational safety specialist serving in occupational health and safety issues at the port are taken into consideration. Risk assessment reports are prepared within the periods specified in the legislation and all port personnel are informed. In this direction, all necessary precautions are taken and the use of personal protective equipment is ensured by receiving support from the workplace physician and occupational safety specialist for the use of personal protective equipment when necessary. It is aimed to address occupational health and safety activities in an orderly manner and to solve them within the framework of continuous improvement target. In occupational health and safety practices, the target of the port operator is a "0" accident. In line with this goal, OHS studies are carried out, continuous training is provided to employees and awareness is raised by keeping safe work instructions at the port site.

Training Modules Prepared for Zeyport Port Personnel;

- Occupational Health, Safety and Environment Training,
- ISPS Code Trainings
- ISO trainings
- Emergency Plans Information Training and implementation activities,
- Working with Hazardous Chemicals and Leakage Response Training,
- IMDG Code General Awareness and Task-Oriented Training,
- Environmental Awareness and Waste Management Training,

In addition, various parts of the port for various purposes;

- Security
- Health
- Forbidden
- Disclosure
- Imperative
- Stimulant
- First Aid
- Sign
- Illuminated
- Audible
- The safety and health signs hung for the symbol, etc., shall be read one by one and the Semis on these signs shall be obeyed. The location of the Safety and Health signs will not be changed without the knowledge and permission of those responsible.

In the **Zeyport Risk Assessment and Emergency Response Plan, which is** prepared to be implemented in emergency situations, the sections related to occupational health and safety are prepared to be applied in emergency situations.

## 9.2. Information on personal protective clothing and procedures for their use

The use of personal protective equipment is explained to all employees and guests practically before starting work. The control and use of PPE is carried out by shift supervisors and OHS personnel. Those who do not use it are provided to use it. They are not allowed to continue their work without using PPE.

#### **Work Clothes**

- Work clothes should be clean and neatly looked.
- In addition to the employees who use Zeyport port work clothes, third parties doing business in the
  port area must also wear work clothes. It is not mandatory for guests or document follow-ups to
  wear work clothes.

#### **Protective Helmet**

- All employees and guests entering the shore facility are required to wear protective helmets. This obligation does not apply to those who come to the port authority and follow the paperwork.
- All those who carry out handling work must wear helmets.

## Glasses and Eye Protection

- In the places specified in the field safety rules, if the warning signs indicate the use of glasses due to danger, those entering the areas should use protective safety glasses.
- When the glasses are not used, they are not left in dusty and dirty places with the lenses touching.

## **Protection of Gloves and Hands**

- Employees must wear appropriate work gloves according to the work performed.
- Work gloves will be according to the needs of the field, according to the characteristics of the materials used.

## Protection of Shoes and Feet

- At scaffolding and warehouses, all personnel shall wear steel-toed safety shoes.
- Shoes should be well-groomed. It should not be burst, torn, the seam is broken, the base is split, it should not be pierced.
- When using work shoes, dirt and other contaminated substances (oil, chemicals, etc.) that are transmitted to both the sole and the upper skin are wiped with a damp cloth and kept clean regularly.
- Sharp tools or materials are not used to clean shoes.
- Shoes made of paintable leather should be painted when dry and/or periodically with appropriate shoe paint and polish.
- Shoes are not used as shoes by pressing on the heel, they are not worn without socks.
- Work shoes are not used by deteriorating their original shape (removing the steel finger protector).

## Ear Protectors and Protection of the Ears

- It is mandatory for people working in coastal facilities where there is more than 85dB of sound and noise to use ear protectors.
- Shift supervisors and Job Safe Specialists will carry out the use and supervision.
- Earplugs should fit well into the ear hole, not transmit sound and noise through the contacts.
- When the earplugs become hard, deformed, shrink, become too dirty to be cleaned, it should be replaced with a new one.
- Ear protectors should be stored in containers when not in use.
- When removing the earplugs from the external ear canal, they should be removed by bending with slow movements. Rapid removal can cause damage to the eardrum.
- Dirty ear protectors should never be used and should be cleaned.
- Disinfectants, chemicals, solvents should not be used in the cleaning of the ear protector.

#### **Dust Masks**

- The use of a dust mask is used for the prevention of respiratory diseases.
- Dust masks should be used in the places specified within the port and in the places indicated by the signboard.
- The elastic bands of the dust mask should be checked before use. The face should not be overly tightened. Masks with broken elastic band should not be used.
- Masks that undergo deformation from dust or the environment should be replaced with a new one.
- The dust mask is unique to each person. A dust mask used by someone else cannot be used.
- If the dust masks have not lost their properties after use, they should be stored in a nylon bag for the next use.
- In the mass storage of dust masks, the rules of health information should be observed.
- The dust mask other than washable type dust masks is not washed, air is not retained.

#### Gas Mask

- It should be used in places with exposure to dangerous air, bacteria, viruses, chemicals and evaporated poison.

#### **Seat Belts**

- Seat belts should be used in the work carried out at a height of 120 cm from the ground.

## 9.3. Closed area entry permit measures and procedures



## 9.3.1. Indoor hazards

Working indoors can pose a risk of death or serious injury. This can be caused by exposure to the hazard of the load in confined spaces containing dangerous loads, lack of oxygen and hazard conditions of the load in the form of solids, liquids or gases. These are;

- Warehouse
- Potholes that may form
- Tanks, containers
- Pressure vessels
- Boilers
- Manholes
- Chat rooms
- There may be rooms etc. that are not ventilated or do not have good ventilation ability.

It should be noted that personnel working in confined spaces face the risk of death or serious injury. This also applies to the rescue team, which does not receive the right training and does not use the appropriate equipment. Rescue intervention should be carried out remotely if possible. If there is a possibility of finding a solution by avoiding working in closed areas, this option should be tested.

The hazards arising from hazardous loads when working in closed areas are as follows.

- Lack of oxygen, especially due to the suffocating effect of dangerous loads in the form of gases
- Lack of natural lighting
- Powders of dangerous loads in the form of solids
- The ability of liquid hazardous loads to fill enclosed spaces. This must also be taken into account for strict hazardous loads.
- Working conditions that increase body temperature during work
- The formation of toxic, flammable gases, fumes or vapors caused by the fact that the working equipment is emitted into the working environment and even caused by the peculiarity of the dangerous load itself
- As a result of the narrowness of the closed space, even light gases create an asphyxiant environment

If working indoors is inevitable; The time to be worked, the work to be done, the appropriate training of the personnel, the physical, physical effort or effort needed potentially, the health suitability (age, weight, resistance, etc.) of the personnel to perform the task, the competence of the rescue teams for possible accidents should be included in the risk assessment and the following working environments should be taken into consideration.

- How the methods of entry and exit to the enclosed space will be. If possible, an entry-exit rehearsal should be made to the closed area before the work starts and this period should be noted. Especially the exit rehearsal should be done slowly and calmly. For critical thresholds such as being able to trip and fall, crash and lose consciousness, the threshold for those who try should be differentiated.

- Lighting. Flammable especially portable ex-proof equipment should be preferred in closed areas where hazardous loads (class 2 and class 3 including side hazards) are present.
- Lack of oxygen. A break should be taken for half the time when the oxygen in the area will be sufficient, and if necessary, the employee should be replaced by another attendant who has the ability to do the same job.
- Side hazards of the work done. For example; If it is necessary to weld in closed areas containing dangerous loads, the toxic gas that will be released by welding fumes should be taken into consideration.
- Communication methods to use to sound the alarm.
- Evacuation when necessary.



Working materials must be considered. These are;

- Tools such as traction and murch that come into contact with the metal parts of the enclosed space will be able to produce sparks. If it works, plastic hammers should be preferred. It should be taken into account that this situation may cause the officer to make additional effort.
- Waste that will be generated
- Smoke and
- It is in the form of access to the tools and equipment needed.

## 9.3.2. Indoor measures

If possible, access to enclosed spaces should be avoided. It should not be forgotten that work in enclosed spaces containing dangerous loads can cause serious injuries and even death . Other solutions should be sought for the work to be done, the possibilities should be tested and the conditions should be forced.

When access to the closed area is inevitable, a work permit must be obtained and emergency procedures must be applied before the work begins.

It should be confirmed by the unit issuing the work permit that the personnel who will carry out the work have knowledge and experience about the work to be done. The dangerous goods safety consultant must be informed before the work begins.

## **Aeration**

It should be ensured that there is proper ventilation in the working environment and if necessary, temporary ventilation should be applied before the work begins. For this, approval must be obtained from the workplace physician.

If there is no or limited natural air supply in the area to be worked , it may be necessary to use a respirator to provide air supply to the user. For this, approval must be obtained from the workplace physician.

## Isolation

Some services may need to be temporarily suspended in order for employees to work safely in confined spaces containing hazardous loads. The water, electricity and gas systems of the respective area can be temporarily deactivated.

#### Personal protective equipment

Officers working in confined spaces containing hazardous loads are required to use personal protective equipment appropriate to the job. The equipment to be used must be chosen correctly so that it does not pose another danger. Personal protective equipment that would prevent overheating or communication or restrict movement should not be preferred. For this, the employee must also be suitable for the personal protective equipment to be used. In other words, both the conditions that the personal protective equipment is suitable for the job and the employee's suitability for the personal protective equipment should be sought together.

Employees; use eye and ear protection equipment, hand-foot and head protection equipment, a respirator, thermal clothing if necessary and, if necessary, appropriate seat belts.

The personal protective equipment in the coastal facility is as follows.

- Protective goggles
- Half and full face mask
- Dust mask
- Gas detector
- Air tube breathing apparatus
- Seat belt and
- Can rope



## Emergency procedures

Appropriate and adequate measures must be taken to ensure the safe rescue of workers in confined spaces before starting work.

In addition, first aid procedures, safety of rescuers and contact with emergency services should be considered.

The emergency procedure should also consider the following.

- It should be an effective means of communication to sound an alarm, both indoors and by someone from the outside.
- Rescue and first aid equipment should be provided.
- When a rescue operation is needed, units near the enclosed area containing dangerous cargo may be temporarily taken out of service.
- Emergency services should be planned for how they can reach staff when needed, what are the access routes, and information about hazards should be provided.
- Rescue team members should be trained, ready to respond, protected against the cause of an emergency, and know how to use equipment provided for rescue, such as a respirator, life-saving rope or firefighting.
- Those who work indoors should be trained in their work and, if necessary, trained in the use of respirators.

## 9.3.3. Enclosed space entry procedures

## 9.3.3.1. Inspection of the enclosed space and filling out the control form

Before entering the enclosed area, the area must be evaluated and the Closed Area Entry Permit Form must be completed.

The form should contain at least the following information.

- Description and location of the enclosed space
- Purpose of entry into the region
- Known and potential hazards (information on dangerous cargo)
- Required isolation methods (e.g. lockout/tagout)
- Environmental conditions of the enclosed space
- Atmospheric readings to verify that acceptable environmental conditions are being met and maintained
- Rescue services, procedures and equipment that may be required in the event of an emergency
- Communication procedures to be used
- Personal protective equipment to be used
- Any additional information regarding the specific conditions of the enclosed space
- The names of the following:
  - Who allowed entry
  - o The section supervisor who commissioned the work
  - o Staff to do the job
  - o Restricted domain responsible
  - Occupational safety officer

## 9.3.3.2. Obtaining permission to enter the confined area



In confined spaces containing dangerous cargoes, personnel must notify the person who allowed entry before entering the area.

The person who allows entry files all records such as what the dangers of the confined area are, what measures are taken, the personnel information entered, healthy communication routes, rescue and first aid measures.

The person who allows entry will then properly review and approve the entry form. Attach a copy of the form to the file for future reference.

## 9.3.3.3. Preparation of the indoor entrance team

Before entering a confined space, all relevant employees who will enter the enclosed space must attend a preparatory meeting that includes the following topics:

- Discussion of real and potential hazards
- Review of emergency procedures, including rescue and evacuation
- Filling out the entry form by all team members to acknowledge that they understand the hazards associated with the enclosed space
- Provision of personal protective equipment
- Discussion of the location of the enclosed space and other important information

## 9.3.3.4. Monitoring of the indoor atmosphere

Due to inadequate ventilation and physical structure, the atmosphere in enclosed spaces can be truly or potentially dangerous. Atmospheric hazards include.

- Oxygen deficiency or oxygen-rich atmospheres
- Flammable atmospheres
- Toxic atmospheres
- Any other atmosphere that is immediately dangerous to life or health

Personnel trained in monitoring the indoor atmosphere in indoor work should monitor and take note of the following points.

- Oxygen content
- Flammable atmosphere
- Potentially toxic pollutants

## Oxygen Atmospheres

Oxygen-enriched atmospheres are more than 23.5% oxygen; oxygen-deficient atmospheres are less than 19.5% oxygen. Certain chemical or biological reactions can reduce oxygen over time, but its working processes, such as cutting or welding, can reduce oxygen content very quickly. When hot work is done in an enclosed space, oxygen levels should be tested regularly. The graph below summarizes the human response to various oxygen levels.



Odds (%)	Physical Impact	
23,5	Oxygen enrichment	
19,5-16	No impact	
16-12	- It accelerates in breathing.	
	- The heartbeat accelerates.	
	- Attention, thinking and coordination disorders are observed.	
12-10	- There is difficulty in making decisions.	
	- Muscle control is weakened.	
	- Muscles get tired quickly.	
	- Intermittent breathing is observed.	
10-6	- Nausea and vomiting	
	- Difficulty moving or loss of movement.	
	- Unconsciousness that can result in death	
6-8	- Difficulty breathing	
	- Cluttering	
	- Death in a few minutes	
6-4	- Coma and death in 40 seconds	

Table 1.x Human response to oxygen concentration

#### Flammable Atmospheres

Flammable atmospheres contain enough oxygen and flammable steam, gas, or dust to ignite and support a fire or explosion when exposed to flames, sparks, or heat. Oxygen-rich atmospheres and hazardous atmospheres that exceed lower flare limits are extremely flammable and dangerous.

#### Toxic Atmospheres

Toxic atmospheres can cause injury, disease, or death. Safety concerns include inhalation and skin exposure. If the identity of the toxic atmosphere is known, all appropriate Safety Data Sheets (SDS) for threshold limit values and recommended personal protective equipment should be checked. If the identity of the toxic atmosphere is unknown, a maximum PPE (respirator) should be used.

#### 9.3.3.5. Indoor ventilation

Ventilation controls the atmospheric hazards of an enclosed space by replacing unsafe air with clean, breathable air. There are several methods for airing a closed space. The method and equipment used depend on the following factors:

- Size of the enclosed space
- Atmosphere
- The source of makeup air

For most enclosed spaces, fans or other air-moving equipment can provide adequate ventilation. Two common types of mechanical ventilation include ventilation with a fan and with an aspirator. In some cases, both can be used. (Ventilation with aspirator was used instead of exhaust system).



Aspirator ventilation catches and removes contaminants at exit points. This type of ventilation method is ideal for flammable and toxic substances produced in a single point (e.g. hot works and works involving cleaning solvents). When using this type of ventilation system, the aspirator inlet should be kept close to the work being done. This type of ventilation system should not be used for widely dispersed contaminants or enclosed spaces that make ventilation difficult. Instead, ventilation with a fan should be used.

Ventilation with a fan cleans the atmosphere by supplying and consuming large volumes of air. Since this system does not reduce the amount of pollutants released, it is not recommended for highly toxic atmospheres. Aeration with a fan is ideal for providing oxygen and controlling low concentrations of highly non-toxic materials. When using this type of ventilation system during hot operation, the atmosphere must be constantly monitored and, if necessary, a compressed air breathing apparatus (SCBA) should be used.

Ventilation alone cannot reduce some atmospheric hazards to safe levels. An atmospheric testmay be needed to verify whether the ventilation system is successful.

The following guidelines should be followed for ventilation of enclosed spaces.

- From the safety data sheet for the dangerous cargo, the hazard class of the substance and its side class, if any, should be determined and the characteristics of the relevant class should be defined. For example, flammable, toxic, corrosive, etc.
- Ventilation should be started before work begins to ensure that the area is safe before entering the enclosed space.

- The atmosphere should be tested before entering to verify that the ventilation system is working properly and that the area is safe.
- It continues tobe ventilated as long as there is work in the closed area , or at least until oxygen levels and hazardous concentrations are within safe limits.
- If working indoors can make the air unsafe (e.g. hot work, painting, solvent use, sandblasting, etc.), ventilation should be continued.

## 9.3.3.6. Preparing for entrance to the enclosed space

Employees must complete the following steps to prepare enclosed spaces for entry:

- Using guards and barriers (including delinators, signs, rope or tape), the entrance area to the enclosed space should be separated from other areas in the vicinity.
- To avoid flammable, toxic and corrosive hazards, the indoor area should be ventilated andemptied if possible.
- All electrical, mechanical and pneumatic energy sourcesmust be insulated.
- Ensure that all employees are wearing appropriate personal protective equipment and that all persons wearing respirators are properly trained in their use.
- Ensure continuous ventilation when necessary.
- When working in a potentially flammable atmosphere, ensure that non-sparking tools and explosion-proof equipment are used.
- Gas cylinders should be positioned for cutting or burning outside the enclosed space.
- Make sure that a compressed air breathing apparatus (SCBA) is available.
- Personal protective equipment, including life-saving ropes, cranes and harnesses, should be acquired when necessary, and ensure that the equipment is checked as planned.
- From the safety data sheet of the cargo, the hazard class of the cargo and its side class, if any, should be examined and precautions should be taken against swallowing hazards such as liquid, dirt and dust of the cargo.

## 9.3.3.7. Security operations



Life support safety is very important during indoor operations. The following items are requirements for the protection of enclosed spaces.

- Employees must wear appropriate personal protective equipment at all times.
- Employees should use seat belts, life ropes and/or cranes as appropriate.

Personnel conducting indoor surveillance are responsible for the following.

- Keeping a record of all authorized entrances operating in the confined space.
- Constant verbal communication with authorized participants in a confined space.
- To take the necessary precautions and measures to prevent unauthorized persons from entering a closed area.
- Initiating evacuation procedures when conditions inside or outside the enclosed space pose a new hazard.

All employees must evacuate an enclosed space when one or more of the following conditions occur.

• When the indoor supervisor orders an evacuation

- When automatic atmospheric alarm sounds are heard
- When authorized participants are convinced that they are in danger

## 9.3.3.8. Emergency procedures

If an employee is unable to vacate the enclosed space in an emergency, the indoor supervisor should contact rescue personnel by radio or other means.

The indoor supervisor and other employees outside the enclosed space should attempt to rescue the employee exposed to the hazard from the enclosed space using a lifeguard rope.

Under no circumstances should unauthorized employees enter a confined space in an emergency.



WORK PERMIT FORM IN CLOSE	D AREAS CONT	TAINING DANGEROUS CAR	GO		
Information on dangerous goods					
Full Shipping Name		Flour No:			
Side class, if any,		Packing group:			
Work Area:		Indoor Supervisor/Superv	isor		
		Name-Surname:			
		Signature			
People to Work					
Name -Surname	Task	Respirator	Safety belt		
1.					
2.					
3.					
4.					
5.					
To Do:		Supervisor			
	Name-Surname:				
Ambient Measurement	Limit value	Measured value			
Oxygen	%18-%21				
Carbon monoxide	50 ppm				
Hydrogen sulfide (minimum permissible lower limit of life	10-700 ppm				

Methane (explosion limits)	%5-%15				
Issues to be checked		Yes	No		
Is there continuous air circulation?					
Is secure check-in/check-out provided?					
Is the lighting sufficient?					
Do you need hazardous energy isolation?					
Is it ensured that a person is constantly waiting outside th space?	e enclosed				
Do the personnel who will enter have seat belts and enou attached to it?	gh rope				
Is a roller system required for emergency exit?					
Is an emergency alarm device necessary?					
Personal protective equipment (for indoor areas)		Yes	No		
Gas mask with oxygen cylinder					
Air-fed face mask					
Face mask (with chemical cartridge)					
The official who commissioned the work	CAN START W	ORKING			
Name-Surname:	Name-Surnan	me (OHS Officer):			
Signature:	Signature:				
History:	History:				
Hour: Hour:					

#### 10. OTHER CONSIDERATIONS

### 10.1. Validity of the Dangerous Cargo Certificate of Conformity

Within the scope of the Regulation on the Procedures and Principles for the Granting of Operation Permits to Coastal Facilities published in the Official Gazette dated 18.2.2007 and numbered 26438, the coastal facility operation permit of Zeyport Port Authority was renewed until **29.03.2024.** 

Document No: 2704-D3 / Validity Period: 29.03.2024

### 10.2. Defined tasks for Dangerous Cargo Safety Advisor

- a) To monitor compliance with the requirements for the carriage of dangerous cargoes.
- b) To provide recommendations to the coastal facility for the transport of dangerous cargo.
- c) To prepare an annual report to the coastal facility on the activities of the coastal facility operator in the transportation of dangerous cargoes. (Annual reports are kept for 5 years and submitted to the administration upon request.)
- d) To check the practices and methods specified below;
  - Procedures for checking that dangerous cargoes arriving at the facility are appropriately identified, that dangerous cargoes are properly identified, that the correct shipping names are used, certified, packaged/packed, labelled and declared, that they are safely loaded and transported to approved and compliant packaging, containers or cargo transport units, and that the results of the control are reported.
  - > Collection/discharge procedure for handling and temporarily stored dangerous cargoes,
  - Whether the coastal facility takes into account the special requirements for the Dangerous Goods transported when purchasing the means of transport for the dangerous cargoes handled,
  - Control methods of equipment used in the transport loading and unloading of dangerous cargoes,
  - Whether coastal facility employees, including amendments to legislation, have received appropriate training and whether these training records have been kept,
  - The suitability of the emergency methods to be applied in the event of an accident or an event affecting safety during the transportation, loading or unloading of dangerous cargoes, the appropriateness of the reports prepared on serious accidents, incidents or serious violations that have occurred,
  - Determining the necessary measures against accidents, incidents, or the re-occurrence of serious violations and evaluating the implementation made,
  - Subcontractors or 3. The extent to which the rules relating to the selection of parties and the carriage of dangerous goods are taken into account,
  - ➤ Determination of whether employees in the handling, handling, storage and collection/unloading of dangerous cargoes have detailed knowledge of operational procedures and instructions
  - Appropriateness of measures taken to prepare for risks during the handling, handling, storage and collection/discharge of dangerous cargoes
  - Procedures for all mandatory documents, information and documents relating to dangerous cargoes.
  - Procedures for the safe docking, mooring, loading/unloading, sheltering or mooring of vessels carrying dangerous cargo safely at shore facility day and night.
  - Procedures for the collection, discharge and limbo of dangerous cargoes, as well as for additional measures to be taken according to seasonal conditions.
  - Procedures for fumigation, gas measurement and degassing work and operations.

- Procedures for keeping records and statistics of dangerous cargoes,
- The accuracy of the issues related to the possibility, capability and capacity of the coastal facility to respond to emergency situations,
- Compliance with the regulations for the first interventions to be made for accidents involving dangerous cargoes,
- Procedures for handling and disposal of damaged hazardous cargoes, as well as wastes contaminated with hazardous cargoes,

Information about personal protective clothing and the procedures for their use.

## 10.3. Matters relating to those carrying dangerous cargoes arriving at/leaving the shore facility by road

(Documents that road vehicles carrying dangerous goods must have at the entrance/exit from/to the port or coastal facility site, the equipment and equipment that these vehicles must have; speed limits at the port site, etc.).

### 10.3.1. Considerations including occupational health and safety measures

The provisions for the use of documents and license plates to be complied with by the relevant parties during the transportation of dangerous goods are as follows.

- 1. Dangerous Cargo Declaration
- 2. Dangerous Goods Transport Waybill
- 3. Multimodal Hazardous Load Form
- 4. Dangerous Goods Manifesto
- 5. Packaging and Container/Vehicle Loading Certificate
- 6. Safety Data Sheet
- 7. Transport document showing exemption for carriage under ADR/RID/IMDG Codes 3.4 and 3.5
- 8. Transport document showing exemption for carriage within the scope of ADR 1.1.3.6
- 9. For carriages covered by ADR
  - a) Suitable for carriage and valid SRC 5 certificate
  - b) ADR written instruction
  - c) Vehicle Conformity Certificate suitable and valid for carriage
  - d) Transportation document
- 10. Equipment required to be in the vehicle (according to its respective class in accordance with ADR 8.1.5)
  - a) Wedge (all classes)
  - b) 2 erectible warning signs (all classes)
  - c) Reflective vest (all classes)
  - d) Portable lighting tool (all classes)
  - e) Protective gloves (all grades)
  - f) Eye protection equipment (all classes)
  - g) Eye rinse fluid (all classes except class 1 and class 2)
  - h) Shovel (solid and liquid only 3, class 4.1, class 4.3, class 8 and class 9)
  - i) Sewer cover (solid and liquid only 3, class 4.1, class 4.3, class 8 and class 9)
  - j) Collection container (solid and liquid only 3, class 4.1, class 4.3, class 8 and class 9)
  - k) Emergency mask (class 2.3 and class 6.1)
- 11. CSC Certificate for containerized transportation

- 12. Certificate in the load handling unit (CTU) and in the case of the use of heat-treated wood for loading safety or transportation
- 13. Loading safety certificate showing that the cargoes in the container or vehicle are properly secured under the IMDG Code (except for fragmentary loads with no gaps and no possibility of movement and solid/liquid bulk cargoes)
- 14. Certificate of conformity to transportation of those who contain harmful gases or fumigation applications in the cargo transportation units coming to the port facility and in the cargo transportation units leaving the port facility as a result of the risk assessment or if the gas measurement has been made
- 15. Certificate of professional competence appropriate to the class of dangerous cargo carried by vehicle drivers (SRC 5)
- 16. Freight transport units that will continue their journey by road from the K heat plant must be fitted with orange plates and hazard warning signs in accordance with the provisions of ADR 5.3. It is enough to have an orange license plate on the front and back of vehicles carrying packaged dangerous cargo. In addition, no hazard warning signs are required (this provision applies when class 1 and class 7 handling is not carried out at the port. In any case, these classes do not have an operating permit. If there were a class 1 and class 7 activity permit, it would be mandatory to install this hazard warning sign).

Dangerous cargoes arriving at Zeyport Port Facility cannot be transported without the mandatory documents related to transportation listed above, orange plate and hazard warning signs. Loads that are not properly secured under the IMDG Code are also treated as dangerous cargo.

The speed limit in the port area is set at 20 km/h.

## 10.3.2. Transport legislation requirements

Within the scope of Article 8-(2) of the Regulation on the Carriage of Dangerous Goods by Road, at the entrances and exits of the coastal facility;



- Transport document in accordance with ADR 5.4.1
- Periodic inspections of load carrying units
- Hazard warning sign/sign and orange plate checks are carried out.

The equipment and personal protective equipment that should be kept at the entrance/exit of road vehicles carrying dangerous goods to the port or coastal facility area are as follows.

Equipment required to be in the transport unit (ADR 8.1.5)					
Label number	Label number 8.1.5.2 (equipment)				
	Wedge				
	2 erectible warning signs				
1 1 4 1 F 1 C thursush 2 1 2 2	Reflective vest	(for each vehicle member)			
1, 1.4, 1.5, 1.6 through 2.1, 2.2	Portable lighting tool	(for each vehicle member)			
	Protective gloves	(for each vehicle member)			
	Eye protection equipment	(for each vehicle member)			
42 54 52 62 and 7	Wedge				
4.2, 5.1, 5.2, 6.2 and 7	2 erectible warning signs				

	Eye rinse fluid	
	Reflective vest	(for each vehicle member)
	Portable lighting tool	(for each vehicle member)
	Protective gloves	(for each vehicle member)
	Eye protection equipment	(for each vehicle member)
	Wedge	Note: The shovel, sewer
	2 erectible warning signs	cover and collection
		container are needed only
	Eye rinse fluid	for solids and liquids.
	Reflective vest	(for each vehicle member)
	Portable lighting tool	(for each vehicle member)
3, 4.1, 4.3, 8 and 9	Protective gloves	(for each vehicle member)
3, 4.1, 4.3, 6 and 9	Eye protection equipment	(for each vehicle member)
		(additional protective
	Oar	equipment)
		(additional protective
	Sewer cover	equipment)
		(additional protective
	Collection container	equipment)
	Wedge	
	2 erectible warning signs	
	Reflective vest	(for each vehicle member)
2.3	Portable lighting tool	(for each vehicle member)
2.3	Protective gloves	(for each vehicle member)
	Eye protection equipment	(for each vehicle member)
		(additional protective
	Emergency mask	equipment)
	Wedge	
	2 erectible warning signs	
	Eye rinse fluid	
6.4	Reflective vest	(for each vehicle member)
6.1	Portable lighting tool	(for each vehicle member)
	Protective gloves	(for each vehicle member)
	Protective gloves	(10) cach remote member,
	Eye protection equipment	(for each vehicle member)

# 10.4. Considerations for those carrying dangerous cargoes arriving at/leaving the shore facility by sea

Day/night signs to be displayed by ships and sea vessels carrying dangerous goods at the port or shore facility, cold and hot working procedures on ships, etc.

## 10.5. Additional considerations to be added by the onshore facility

Within the scope of Zeyport Coastal Facility Operation Permit;

1- Provided that passenger transportation is not carried out with the same ship during the hours when the tankers and land tankers are transported and the relevant provisions of the Ports Regulation are complied with during the docking / departure and discharge /

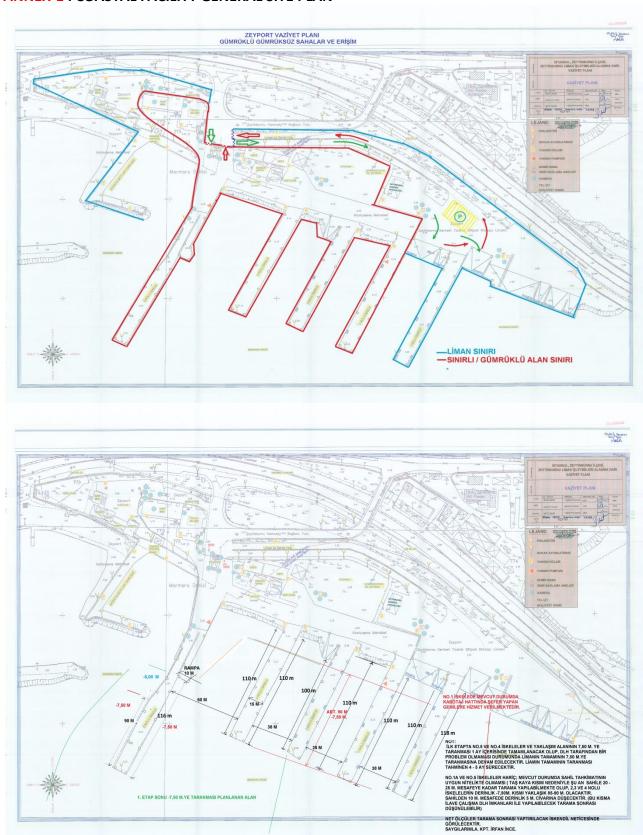
- discharge of the ships, the Car Soldiers carrying the land tanker of the tankers will be docked only at the 1no.lu pier of the facility and the collection / discharge will be made.
- 2- Yachts, including mega yachts, will be docked at the pier of only 5 no.lu of the facility during the paperwork of the yachts.

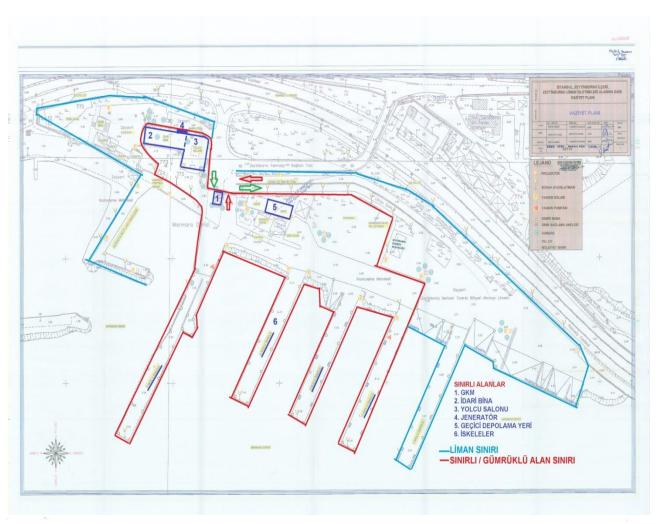
In addition, as stated in the Coastal Facility Operation Permit, the provisions **of** the relevant legislation must be fulfilled by the coastal facilities covered by the International Ship and Port Facility Security Code (ISPS Code) in order to carry out international activities.

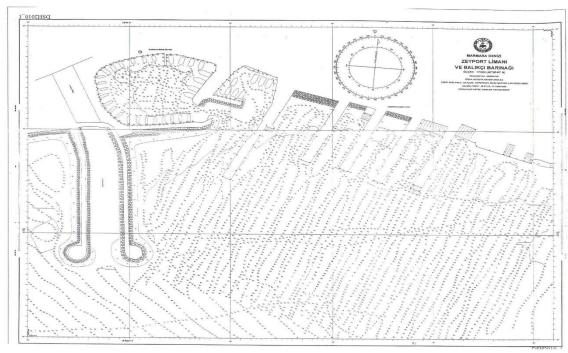
#### 11.ECLAIR

- 1- General site plan of the coastal facility
- 2- Photos of the general appearance of the coastal resort
- 3- Emergency Contact Points and Contact Information
- 4- General Layout Plan of Areas Where Dangerous Goods Are Handled
- 5- Fire Plan of Hazardous Cargo Handling Areas
- 6- General Fire Plan of the Facility
- 7- Contingency Plan
- 8- Plan of Emergency Meeting Places
- 9- Emergency Management Scheme
- 10- Dangerous Goods Handbook
- 11- Leak areas and equipment for CTU and Packages, input/output drawings
- 12- Inventory of Port Service Vessels
- 13- Maritime of the Port Authority's administrative boundaries, moorings and guide captain disembarkation/boarding points
- 14- Coordinates
- 15- Emergency response equipment against marine pollution in the coastal facility
- 16- Personal protective equipment (PPE) usage map
- 17- Dangerous cargo incidents notification form
- 18- Control results notification form for dangerous goods handling units (CTUs)
- 19- Other attachments needed
- 20- Dangerous Goods Handling Guide Additional Load Notification (where required)

**ANNEX-1: COASTAL FACILITY GENERAL SITE PLAN** 







**ANNEX-3: EMERGENCY CONTACT POINTS AND CONTACT INFORMATION** 

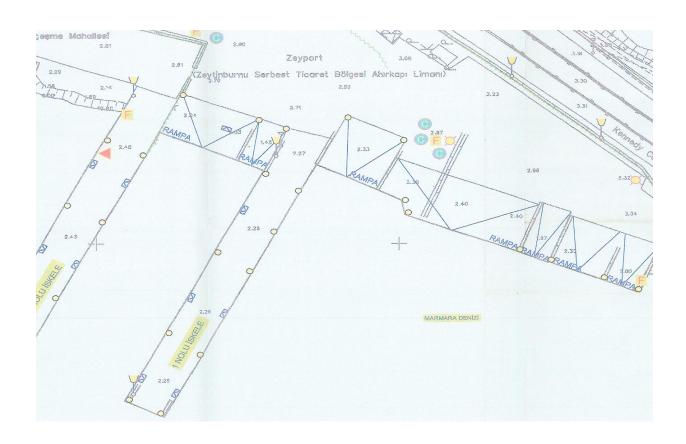
NO	INSTITUTION / TITLE	DUQUE.
NO	INSTITUTION / TITLE	PHONE
1	ZEYPORT PORT FACILITY SECURITY OFFICER	0212 679 90 01 (3 lines)
2	ISTANBUL GOVERNORSHIP	0 212 455 59 00
3	ISTANBUL PROVINCIAL DIRECTORATE OF SECURITY	0212 635 00 00
4	ISTANBUL COURTHOUSE	0212 375 75 75
5	ISTANBUL CUSTOMS DIRECTORATE	(0212) 463 7002
6	ISTANBUL PORT PRESIDENCY	0 212 249 21 97-98
7	GENERAL DIRECTORATE OF COASTAL SECURITY ISTANBUL BRANCH OFFICE	0 212 323 48 05
8	CIVIL DEFENSE DIRECTORATE	122
9	DIRECTORATE OF HEALTH	638 30 00
10	ZEYTİNBURNU EĞ. AND RESEARCH HOSPITAL	0212 582 68 68
11	PROVINCIAL DIRECTORATE OF SOCIAL SECURITY	0212 372 10 00
12	ISTANBUL MUNICIPALITY	0212 449 40 00
13	ZEYTINBURNU MUNICIPALITY	0212 413 11 11
14	ZEYTİNBURNU POLICE DEPARTMENT	0212 413 11 11
15	POLICE EMERGENCY	155
16	GENDARMERIE	156
17	BEACH SECURITY	158
18	EMERGENCY ROOM	112
19	FIRE BRIGADE	110
20	AFAD	122
21	FUZZ	153
22	PROVINCIAL DIRECTORATE OF ENVIRONMENT AND URBANIZATION	0212 318 41 00
23	PROVINCIAL DIRECTORATE OF CULTURE AND TOURISM	0212 514 11 04

## ANNEX-4: GENERAL SITUATION PLAN OF THE AREAS WHERE DANGEROUS CARGOES ARE HANDLED

#### STATION PLAN NO. 1 - TANKERS' LANDING BOARDING PORT



IN THE PIER SITE PLAN NO. 1, THE PARKING AREA OF VEHICLES CARRYING DANGEROUS LOADS IS SEEN.



#### **ANNEX-7: EMERGENCY PLAN**

It is kept as a separate document in the port facility and is renewed at least once every 3 years. The details of the Contingency Plan are as follows.

Emergency procedures,

Emergency response organizational chart

Name, title and contact details of the person/organization preparing the emergency procedures,

Coordinating emergency response activities that may occur at the coastal facility

the name, title and contact information of the authorized person appointed to do so, and their duties and responsibilities,

The name, title and contact information and duties and responsibilities of the facility authority who will contact the relevant Port Authority and other relevant institutions and organizations in case of emergency,

The names and duties of the teams designated for emergency response and the teams in these teams

the names, duties and responsibilities of the assigned personnel,

The nature and capacities of the resources, equipment and equipment to be used by the coastal facility for emergency response,

The measures to be taken and the actions to be taken in order to control the serious foreseeable conditions that may cause emergencies to occur and to minimize the negative effects that they may cause and the facility's existing facilities, capabilities and capacity related to this,

The nature of the measures and warnings to be taken in order to prevent or minimize the possible risks to the persons in the coastal facility in case of any emergency, and the arrangements regarding the methods of announcement and the actions to be taken by the persons in the face of a warning,

In case of emergency, the initial notification procedures to be made to the Port Authority, the content of the information required to be notified and the procedures for transmitting this information to the Port Authority as new information is obtained,

Trainings to be taken by the personnel to be employed in emergency situations,

Coordination methods to be provided with emergency teams outside the coastal facility in case of emergency,

The nature of the exercises to be carried out for emergency situations and the period in which they are carried out,

To provide support to measures taken outside the coastal facility in case of emergencies

Tweaks.

Contingency plans must cover each of the following emergency situations:

a) Facility, equipment and field fires,

- b) Load fires belonging to each hazard load class and sub-hazard classes permitted to be handled at the port,
- c) Ship fires,
- d) Explosion
- e) Accidental death and serious injury,
- f) Natural disasters such as earthquakes, floods, landslides, tsunami waves,
- g) adverse weather conditions such as very strong wind, thunderstorms, excessive snow or icing,
- h) Leakage, leakage or spillage of dangerous goods belonging to each hazard class or subhazard class permitted to be handled at the port,
- i) Marine pollution (e.g. oil/fuel leakage or dangerous cargo into the sea or spillage/fall of environmentally harmful substances),
- i) Gas leakage,
- i) Power failure.

### **ANNEX-9: EMERGENCY MEETING PLACE**





It has been designated by the port administration and the port occupational safety unit as the emergency meeting point behind the security building in the port entrance area as seen in the figure above.

#### **ANNEX-10 DANGEROUS GOODS MANUAL**

Coastal facilities engaged in hazardous cargo collection/discharge and handling and temporary storage activities in order to contribute to the safe performance of these activities; Dangerous Cargo Handbook with the code TMEK.01 has been prepared and submitted to the relevant persons in the dimensions that can be carried in the pocket, including dangerous cargo classes, packages, packaging, labels, markings and packaging groups of dangerous cargoes, separation tables on board and port according to the classes of dangerous cargoes, separation distances of dangerous cargoes in warehouse storages, sorting terms, dangerous cargo documents, dangerous cargoes emergency response action flow diagram.

#### **ANNEX-12 INVENTORY OF PORT SERVICE VESSELS**

The number of Ro-Ro vessels arriving at the port within the scope of regular voyage permits varies.

At ZEYPORT Port; There are no "Port Service vessels" such as Port Tankers, mooring boats, firefighting vessels, pollution response vehicles, etc.

## ANNEX-13 MARITIME COORDINATION OF ISTANBUL PORT PRESIDENCY ADMINISTRATIVE BOUNDARIES, BREWING PLACES AND GUIDE KAPTAN LANDING/BOARDING POINTS

#### 1) ISTANBUL PORT PRESIDENCY

#### A) Port Administrative Area Boundary

The port administrative area of the Istanbul Port Authority; is the coastal and marine area bounded by the Turkish Territorial Waters between the lines drawn in the direction of the true north (360 $^{\circ}$ ) from the coordinates (a) and (b) below in the north and the sea and coastal area to the north of the line formed by the following coordinates (c), (ç), (d) and (e) in the south.

- a) 41º 21′ 00" N 028º 41′ 00" E
- b) 41º 14′ 00" N 029º 15′ 30" E (Cape Kelagra)
- c) 40º 54′ 05" K 029º 08′ 56" E (Cape Maltepe)
- d) 40º 43′ 30" N 029º 09′ 24" E
- e) 40º 43′ 30" N 028º 43′ 24" E
- f) 40º 58′ 18" N 028º 43′ 24" E (Cape Kefaldalian)

#### **B**) Mooring Sites

The anchorage areas in the administrative area of the Istanbul Port Authority are the sea areas formed by the following coordinates. In these fields, anchorage cannot be made within a distance of 2.5 gomino from the shore.

- a) Area A mooring area: The mooring area of ships to dock at coastal facilities; is the sea area formed by the following coordinates.
  - 1) 41°,40 N 028°,15 E 00'59'
  - 2) 40°,39 N 028°,60 E 59'58'
  - 3) 40°,15 N 028°,50 E 58'56'
  - 4) 41°,15 N 028°,50 E00'56'
- b) Area B mooring area: The mooring area of ships departing from coastal facilities and remaining at anchor for a long time; is the sea area formed by the following coordinates.
  - 1) 41°,15 N 028°,50 E 00'56'
  - 2) 40°,15 N 028°,50 E58'56'
  - 3) 40°,82 N 028°,50 E56'53'
  - 4) 40°,92 N 028°,50 E58'53'
- c) Area C mooring area: The anchorage area for ships carrying dangerous cargo , military ships operating with nuclear power and gas free; is the sea area formed by the following coordinates.
  - 1) 40°,92 N 58′– 028°,50 E 53′
  - 2) 40°,82 N 56'- 028°,50 E53'
  - 3) 40°,12 N 56'– 028°,95 E51'
  - 4) 40°,83 N 55′– 028°,00 E50′
  - 5) 40°,48 N 57'– 028°,00 E50'
- ç) Küçükçekmece mooring area; The sea area formed by the following coordinates is also used as a quarantine anchorage area when necessary.
  - 1) 40° 18" N 028° 30" E 58'43'
  - 2) 40° 57" K 028° 30" E56'43'
  - 3) 40° 24" K 028° 24" E56'47'
  - 4) 40° 15" K 028° 24" E58'47'
- d) Area D mooring area: The gas free mooring area for ships carrying dangerous cargo, nuclear-powered military vessels at the northern entrance of the Bosphorus Strait; is the maritime area formed by the following coordinates.
  - 1) 41° ,40 N 15'- 028° ,45 E 57'
  - 2) **41°** ,50 N 17'- 028° ,45 E 57'
  - 3) 41° ,50 N 17'- 029° ,00 E 00'
  - 4) 41°,90 N 14'- 029°,00 E 00'

- e) E zone anchorage area: The mooring area of ships that do not carry dangerous cargo at the northern entrance of the Bosphorus Strait is the sea area formed by the following coordinates. In case of emergency, the Port Authority may allow the supply of fuel and food in this region within the permission of the Turkish Straits Ship Traffic Services Center and other institutions / organizations.

  - 1) 41°,90 N 14'- 029°,00 E 00' 2) 41°,50 N 17'- 029°,00 E00' 3) 41°,50 N 17'- 029°,37 E 02'
  - 4) 41°,90 N 15'- 029°,00 E05'
  - 5) 41°,00 N 15'- 029°,00 E05'
- f) (Added: OG-6/8/2013-28730) (Change: OG-20/10/2015-29508) Waiting/mooring area no. 7 for fuel and water glasses: Areas A and B are within the mooring areas and the marine area no. 7 formed by the following coordinates is the waiting and anchorage area allocated for fuel and water glasses.
  - 1) 40° 59′ 13″ N 028° 55′ 27″ E
  - 2) 40° 59' 02" N 028° 55' 27" E
  - 3) 40° 59' 25" N 028° 57' 29" E
  - 4) 40° 59' 43" N 028° 57' 29" E
  - 5) 40° 59' 33" N 028° 57' 12" E

#### Guide Captain Pick-up and Drop-Off Y men

- Ships transiting through the Bosphorus
- a) on the Black Sea side;

Coordinate of the place of pick-up from the guide container; 41 ° ,15'15 K - 029° ,07'94 E. Depending on the weather and sea conditions, between this position and the line connecting the Anchovy Port Lighthouse to the Elephant Cape Lighthouse, it is made on the starboard side of the southbound traffic lane as much as possible.

Coordinate of the place of drop off from the guide container; 41 °, 48 14' K – 029°, 5209' E. Depending on weather and sea conditions, it is made between this position and the line connecting the Anchovy Port Lighthouse to the Elephant Cape Lighthouse, on the starboard side of the northerly traffic lane as much as possible.

b) on the side of the Sea of Marmara;

Place of pick-up of the guide captain;  $40^{\circ}$ ,  $55'28 \text{ K} - 028^{\circ}$ , 58'75 E. Depending on the weather and sea conditions, it is made between this position and the latitude passing through Fenerbahçe Fener and on the starboard side of the northerly traffic lane as much as possible.

Guide captain drop-off place; 40 ° ,52 K- 02856 'o ,54'70 E. Depending on the weather and sea conditions, it is made on the starboard side of the southbound traffic lane as far as possible between this position and the latitude passing through Fenerbahçe Fener.

- (2) Ships arriving and departing from Haydarpaşa Port;
- a) If they come to the port from the Black Sea side, at a distance sufficient to allow the docking maneuver while cruising, the Bosphorus takes out the guide captains and the port guide captains take the port guide captains from the Marmara Sea side from the same coordinate as the ships passing through the Bosphorus Strait. Instead of a berthing outside the Bosphorus Strait of Haydarpaşa Port, ships coming from outside the port boundaries take the port guide captains at a sufficient distance to allow the berthing maneuver while cruising.
- b) If the ships arriving at Haydarpaşa Port are moored, they shall take the port guide captains at the mooring sites.

#### **ZEYPORT Port Boundary Coordinates**

SAY	MIN	SAN		SAY	MIN	SAN	
40	58	41,5	NORTH	028	53	44,2	EAST
40	58	47,8	NORTH	028	53	48,8	EAST
40	58	40	NORTH	028	53	51	EAST

40 58 46,7 NORTH 028 53 52 EAST

## **ANNEX-14** EMERGENCY RESPONSE EQUIPMENT AGAINST MARINE POLLUTION IN THE PORT FACILITY

	Emergency response equi	ipment against marine poll	ution in the	coastal facility		
List of Equipment Specified in Zeyport Port Risk Assessment and Emergency Response Plan (LEVEL- 1)	List of Equipment Specified in Zeyport Port Risk Assessment and Emergency Response Plan (LEVEL-2)	List of Equipment Specified in Zeyport Port Risk Assessment and Emergency Response Plan (LEVEL- 3)	Equipment Owned by the Property (Zeyport)	List of Warehouse Equipment	SUM	
700 meters barrier (fence type/solid/inflatable)	1400 meters barrier (fence type,	/solid/inflatable)		2175 meters (fence type/solid/inflatable)	2175 meters (fence type/solid/inflatable)	
7 sets barrier support equipment	14 sets of barrier support equip	ment		7 sets	7 sets	
Set of 2 scrapers	Set of 3 scrapers	Set of 4 scrapers		5 pcs	5 pcs	
2 gas measuring devices	3 gas measuring devices	4 gas measuring devices		2 pcs	2 pcs	
2 x barrier winding drums	4 pcs barrier winding drums			9 pcs	9 pcs	
1 water jet	2 pcs water jets			5 pcs 5 pcs		
360 meters absorbing boom	900 meter absorbent boom		30 meters	4002 meters	4032 meters	
400 absorbent pads	850 absorbent pads		200 pcs	9000 pcs	9200 pcs	
20 kg sorbent particles	50 kg sorbent particles			20 kg sorbent particles	20 kg sorbent particles	
20 sorbent pillows	35 sorbent pillows			20 sorbent pillows	20 sorbent pillows	
1 x Centrifugal pump	3 pcs centrifugal pump			2 pcs	2pcs	
3 radios	7 radios			15 pcs	15 pcs	
20 life jackets	30 life jackets	40 life jackets		20 pcs	20 pcs	
20 helmets	30 helmets	40 helmets		26 pcs	26 pcs	
20 helmet lights exproof	30 helmet shapes exproof	40 pcs helmet shape exproof		20 pcs	20 pcs	
20 mac holders	30 mac holders	40 mac holders		20 pcs	39 pcs	
20 pairs of intervention shoes	30 pairs of intervention shoes		20 pcs	20 pcs		
50 pairs of gloves	70 pairs of gloves	100 pairs of gloves		20 pairs	21 pairs	
20 pcs filter half face gas mask	30 pcs filter half face gas mask		20 pcs	20 pcs		
20 protective goggles	30 protective goggles	40 protective goggles		20 pcs	20 pcs	

20 overalls	30 overalls	40 overalls	5 pcs	15 pcs	20 pcs
150 tywek suites	250 tywek suites	400 tywek suites		150 pcs	150 pcs
5 x Exproof flashlight	7 x Exproof flashlight	10 x Exproof flashlight		10 pcs	10 pcs
2 pieces of watercraft	4 pieces of sea vessels	6 pieces of watercraft		4 pcs	4 pcs
25 pcs cardboard box	40 pcs carton box	50 pcs carton box		25 pcs	25 pcs
1 container and stretcher	3 containers and stretchers			1 container, 2 stretchers	1 container, 2 stretchers
2 nets	3 networks			2 pcs	2 pcs
50 pcs nylon bags	70 pcs nylon bags			50 pcs	50 pcs
10 lt detarjan	20 lt detarjan			10 lt	10 lt
30 labels	50 labels			30 pcs	30 pcs
2 pcs floating storage tanks	4 pcs floating storage tanks	7 pcs floating storage tanks		13 pcs	13 pcs
2 land storage tanks	4 land storage tanks	7 land storage tanks		10 pcs	10 pcs
2 pieces of impermeable material	4 pieces of impermeable material	6 pieces of impermeable material		2 pcs	2 pcs
10 plastic drums	25 plastic drums	40 plastic drums		10 pcs	10 pcs
200 plastic bags	500 plastic bags	1000 plastic bags		250 pcs	250 pcs
2 balls of greenhouse nylon	5 balls of greenhouse nylon	7 balls of greenhouse nylon		2 balls	2 balls
3 roll warning strips	5 roll warning strips	10 roll warning strips		3 rolls	3 rolls
5 wheelbarrows	7 wheelbarrows	10 wheelbarrows		10 pcs	10 pcs
5 buckets	10 buckets	30 buckets		20 pcs	20 pcs
5 rakes	7 rakes	10 rakes		25 pcs	25 pcs
5 pickaxes	7 pickaxes	10 pickaxes		23 pcs	23 pcs
15 pcs of shovels	25 pcs of shovels	40 pcs of shovels		20 pcs	20 pcs
1 x Generator	2 x Generator	3 x Generator		2 pcs	2 pcs
5 spotlights and feet	10 spots and feet	15 spotlights and feet		5 pcs	5 pcs
10 sampling containers	15 sampling containers	25 sampling containers		15 pcs	15 pcs

## **ANNEX-15** PERSONAL PROTECTIVE EQUIPMENT (KKD) AND USAGE MAP

	Chief	Facility manager	Manual cleaner	Chemical spray	Chemical brush	High pressure wash	Low pressure wash	Visitor purification	Visitor hot/warm zone	Cold zone	Removal	Boat crew	Water	Cold	Hot	Noise	Gas sampling	H <sub>2</sub> S	Benzene
Fluorescent Vest	•																		
Overalls														•					
Thin Linoleum Dress							•	•	-										
Safety Bot	•																		
Rubber Boot							•	•	•										
Long Waterproof Boot																			
Binding Glove	•																		
PVC Gloves							•	•	-										
Ribbon Seal								•											
Ear protector																•			
Safety Goggles							•		-										
Glasses								•											
Impact Hood							•	•	-								•		
Emniye helmet																			
Life jacket																			
Apparatus																			
Tyvek jumpsuit																			
Thermal overalls																			
Diver's suit																			
Air monitoring dashboard			•		•													•	•
Gas mask																	•		
TECPS																	•		

## **ANNEX-16 DANGEROUS MATTER INCIDENT NOTIFICATION FORM:**

Number no- Date		
Company /		
Institution		
Sender		CONTACT
		INFORMA
		TION
Requirement		
PORT FACILITY		I
"DANGEROUS MAT	TER INCIDENT NOTIFICATION" DATE:	
1. When the accident	occurred,	
	known, how it occurred and why,	
	ne accident occurred (coastal facility and/or sl	
number, equipment	is a ship involved in the accident, informat	tion (name, flag, IMO
,	, operator, cargo in's name and similar information),	
4. Meteorological con		
	dangerous goods, the appropriate carriage na	ame (legislation specified in
the definition of dans		
to be taken as the ba	- · · · · · · · · · · · · · · · · · · ·	,· •e
	the dangerous goods or the sub-hazard sectany, of hazardous substances,	tion, if any,
	hazardous substances, such as marine pollu	tants, if any.
	letails of the dangerous goods,	,,
_	nber of the packaging, cargo transport unit and	container, if any, in which
-	re transported, Manufacturer, sender, carrie	•
dangerous goods		
6. The extent of the o	amage/pollution caused,	
7. Number of dead	and injured in the accident (if any),	
8. How the accident	was intervened,	
9. From which orga	nizations assistance is requested,	
10. Other ships or n	eighbouring facilities that may be affected	by the accident,
PREPARED THE F	ORM:	
Name Surname : Po Signature:	sition :	

ANNEX-17: CONTROL RESULTS NOTIFICATION FORM FOR HAZARDOUS LOAD CARRYING UNITS (CTU) Year/Term ...../...... **Relevant Port Authority** Name of Kıyı **CONTROL AGENTS** Checked Inaccurate Checked Inaccurate (Pieces) (Pieces) (%) (%) **CTU Plates and Brands Compliance** Unsuitable or Damaged Packaging Labels and Brands of Packages Documentation (Declaration of Dangerous Goods) Improper or Damaged Portable **Tanks or Land Tankers** CTU/Vehicle/In-Container Stacking and Mooring Compliance of the load with the rules of separation Safety Containers Agreement (CSC) Approval Sheet Land Tanker Mooring Apparatus and Attachments **CHECKED CTU** Other CTU Tool Container **FILLING COUNTRY INFORMATION** Custom (Pieces) (Pieces) Domestically filled Stuffed Abroad Country:.... Stuffed Abroad Country:.... Stuffed Abroad Country:.... Stuffed Abroad Country:.... Stuffed Abroad Country:....



#### **ANNEX-18 SHIP NOTIFICATION FORM**

SHIP NOTIFICATION FORM			
NAME OF THE SHIP			
GENDER OF THE SHIP			
THE PORT FROM WHICH IT CAME FROM			
PORT TO GO TO			
FLIGHT NUMBER			
FLAG			
GROSS TONE			
D.W.T.			
CALL SIGN			
IMO NUMBER			
EQUIP			
FULL SIZE(LOA)			
WIDTH			
DATE AND TIME OF DEPARTURE FROM THE			
PORT			
LMAN ARRIVAL DATE AND TIME			
SCAFFOLDING WHERE IT WILL BURN			
DRAFT DRAFT FWD-AFT			
GO DRAFT FWD-AFT			
PAYLOAD SENDER			
RECIPIENT OF THE CARGO			
TYPE AND QUANTITY OF CARGO			
IMDG CLASS QUANTITY			
NUMBER OF PASSENGERS			
SHIP CRANE EQUIPMENT			
ADDITIONAL INFORMATION			

**NOTE:** The information in the form must be filled in completely by the ship agent/equipper. Forms containing incomplete and/or incorrect information will not be taken into account by the port authority. The second arrival of ships carrying the same cargo under the same conditions of the ships that came to the port before must be notified to the port administration (e-mail: operation@zeyport.net) at least 24 hours in advance by e-mail.

The Name, Flag, Gross Tone, Call Sign, Imo Number, Full Length and Width of the Ship written on the Ship Notification form must be the same as the information written in the ship's International Tonnage Certificate.

I agree that all information contained in the Vessel Notification Form is correct. In case the information I have provided is incorrect or incomplete, we declare and undertake that all kinds of damages and work accidents that may occur with all kinds of Administrative/fine penalties belong to us.

The Name, Surname, Title, Duty of the person who submits the Ship Notification Form will be sent to us in PDF format with signature and stamp.

In the "Risk Assessment and Emergency Response Plan" prepared within the scope of the Law No. 5312 on the Principles of Intervention in Emergency Situations and Compensation of Membranes in the Pollution of the Marine Environment with Oil and Other Harmful Substances to be applied in emergency situations and the measures to be taken against fire, flash, explosion situations and marine pollution and the measures to be taken for other emergencies are explained in detail. The emergency plans that should be included in the annexes, the general fire plans of the facility, the fire plans of the areas where dangerous loads are handled, the leakage areas and equipment for CTU and packages, the entry/exit drawings and the emergency response equipment against marine pollution are included in detail in the "Zeiport Risk Assessment and Emergency **Response Plan**". Risk Assessment and Emergency Response Plan are complementary to this study. "Zeyport Risk Assessment and Emergency Response Plan is made available at the port to be requested by the competent authorities. In the plans, detailed information about occupational health and safety is explained and it is aimed to protect all port employees and everyone who can come to the port from outside. ZEYPORT ZEYTİNBURNU LIMAN OSANLERI SAN. VE TİC. A.Ş. is a port that serves as a transit point in the port facility, where replenishment services such as loading and / or unloading dangerous cargoes coming to the port are carried out from the ship. For this reason, in case of any emergency that may occur at the port and in cases such as marine pollution, it will immediately notify the competent institutions and the Istanbul Port Authority.