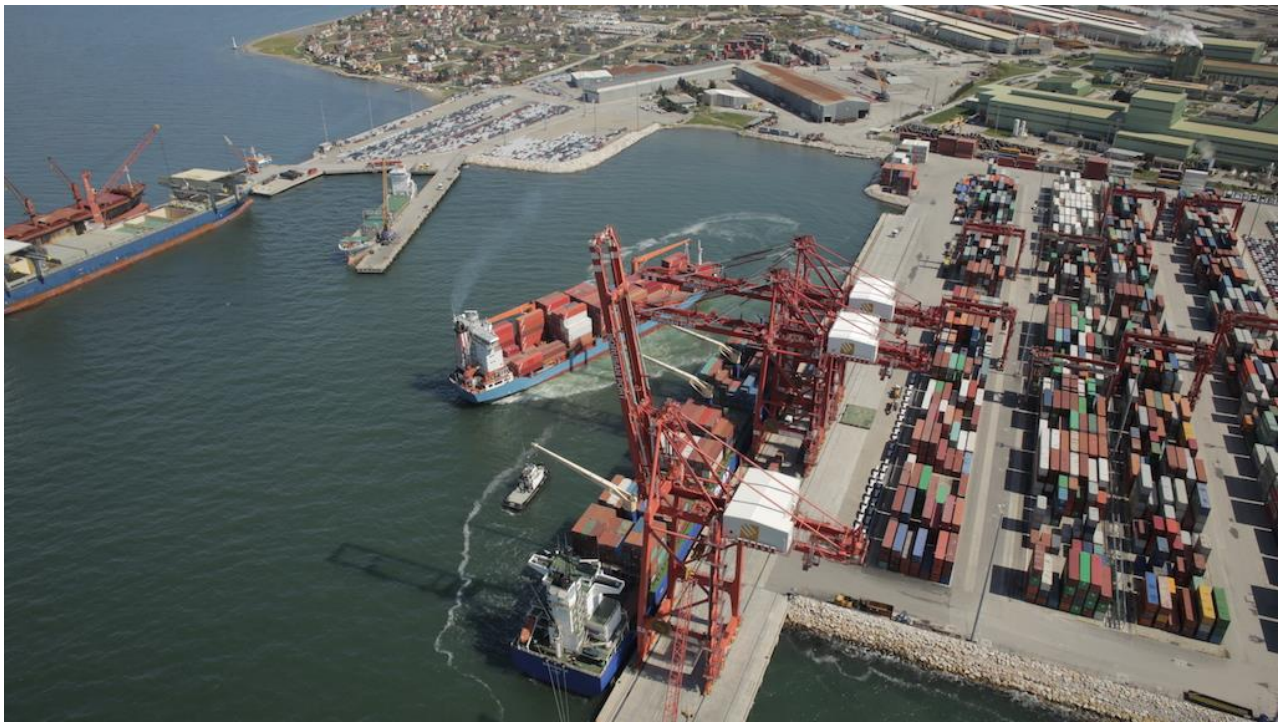
# BORUSAN LOGISTICS PORT



# Dangerous Material Guide

Prepared on: 28.12.2015

Prepared by: A Class Occupational Safety Specialist Evrim İNCE

## REVISION PAGE

| Item No | Revision No | Content of the Revision | Revision Date | Reviser | |
|---|---|---|---|---|---|
| | | | | Name Surname | Signature |
| 1 | 01 | Enterance, 1.1 General information about plant, change the plant information form and send to Ulaştırma Bakanlığı Tehlikeli Mal ve Kombine Taşımacılık Düzenleme Genel Müdürlüğü | 11.04.2017 | Hasan Oktay | |
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# WARNING

It's mandatory for all load attendants to follow any issue, indicated and/or not indicated within this Dangerous Material Guide (HMG), as per changing provisions of national and international legislation. This guide is prepared in good faith and guiding spirit and all related issues were attempted to be mentioned as much as possible, creating necessary preventive measure/precaution and function even if not mentioned in this HMG is legal liabilities of load parties as prudent operators. Borusan Port reserves the right to make modifications to this guide without any additional notification, the latest version of the guide is in the port records. It's published via Internet only for INFORMATIONAL purposes. This guide and its content never release parties from their rights/liabilities in the liabilities and powers vested by Legislation and being a good operator and/or non-liability and/or non-competence cannot be claimed on the basis of this guide. Provisions of applicable legislation shall be valid in the event of a conflict between this guide and applicable legislation.

## DEFINITIONS AND ABBREVIATIONS

Receiver: Real and legal people to receive the dangerous cargo as per carriage contract,
Package: Transport container defined in IMDG Code Section 6 and in which dangerous cargo is placed,
Packaged by: Real and legal people who place dangerous materials, including large package and intermediate bulk load containers, in various types of containers and make packages ready for transportation when required, pack dangerous cargoes or change packages, labels of these cargoes, label for having them transported, perform these operations via sender or its instructions, and land and coastal facility staff who actually perform these operations,
Ministry: Ministry of Transportation, Maritime Affairs and Communication,
HML : Dangerous Material List
DWT: The weight of a ship in salty water when it's fully loaded with cargo, passenger, staff, provision, fuel and fresh water
Handling: Relocation, transfer from large containers to small containers, ventilation, separation, screening, mixing, renewal, replacement or repair of cargo transportation units and packages and such other operations for transportation without changing essential qualities of dangerous cargoes,
Fumigation: The operation of applying solid, liquid or gas chemicals having an impact on a closed cargo transportation unit or hold with the purpose of destroying pests,
IBC Code: The International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, ğ) IGC Code: The International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk,
IMDG Code: International Maritime Dangerous Goods Code, ı) IMO: United Nations International Maritime Organization,
IMSBC Code: International Maritime Solid Bulk Cargoes Code,
ISPS Code: International Ship and Port Facility Security Code,
Administration: Dangerous Goods and Combined Transportation Regulation General Directorate,
Shipmaster: The person guiding and managing the ship,
Coastal facility: Dock, pier, buoy, platform, whose borders are determined by Administration and where ships can safely exchange load or passenger or harbour, and their related anchorages, approach areas, closed and open storage areas, buildings and structures used for administrative and service purposes,
PPE: Personal Protective Equipment
Container: Cargo transportation equipment with document complying with applicable standards within the scope of CSC Contract,
Marpol: International Convention for the Prevention of Pollution from Ships
MSDS: Material safety data sheet
SOLAS: 1974 International Convention for the Safety of Life at Sea,

Carrier: Actual carrier, broker, ship owner, transportation organizer, transportation commissioner, ship agency receiving, making and accepting offers regarding transportation on behalf of itself or third parties for any type of dangerous cargo, and real and legal people performing transport operation with or without contract via highways or railways for dangerous cargoes within the scope of combined transportation,

Dangerous waste: Parts, solutions of cargoes with unanticipated direct use or dangerous cargoes or package and cargo transport units which are classified as indicated in Basel Convention and whose transport class and conditions are identified within the scope of SOLAS, transported to be disposed of via recycling, junking, burning or other means, and packaging and cargo transportation units used with their mixes,

Dangerous cargo (dangerous material): Petroleum and petroleum products within the scope of International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) Annex-I, packaged materials listed in International Maritime Dangerous Goods Code (IMDG Code), bulk materials with UN number provided in International Maritime Solid Bulk Cargoes Code (IMSBC Code) Annex-1, materials given in The International Code of the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) Section 17 and materials given in The International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) Section 19 and materials not listed in these lists yet having potential to damage life, goods and environment or other materials during transportation due to their physical, chemical features or mode of transport, packages in which these materials are transported and not duly cleaned and cargo transportation units,

HMG: Dangerous Material Guide

Loader: Real and legal people loading dangerous cargoes and cargoes posing danger in terms of loading safety into ship and marine vessel, vessel or cargo transportation unit and labelling, plating cargo transportation unit, handling, stacking, unloading cargoes including dangerous cargoes in ship or cargo transportation unit in line with instructions of sender,

Load attendant: Sender, receiver, representative, and transportation commissioner of dangerous cargo,

Cargo transportation unit: Highway trailer, semi-trailer and tanker, portable tank and multi element gas container, railway carriage and tank carriage, container and tank container; designed and produced for transporting packaged or bulk dangerous cargoes.

# CONTENTS

# 1.INTRODUCTION

## 1.1 General information of the facility

## FACILITY INFORMATION FORM

| | | | | |
|---|---|---|---|---|
| 1 | Name/title of facility operator | BORUSAN LOJİSTİK DAĞ.DEP.TAŞ.TİC.A.Ş. | | |
| 2 | Contact information of facility operator (address, phone, fax, e-mail and web page) | Address : Ata Mahallesi 125 Nolu Sok. No:3 16601 Gemlik – Bursa<br>Tel:+90 224 270 13 00 Fax:+90 224 519 01 53<br>http://www.borusanlimani.com/ | | |
| 3 | Name of facility | Borusan Port | | |
| 4 | City of facility | Bursa | | |
| 5 | Contact information of the facility (address, phone, fax, e-mail, web page) | Address : Ata Mahallesi 125 Nolu Sok. No:3 16601 Gemlik – Bursa<br>Phone:+90 224 270 13 00 Fax:+90 224 519 01 53<br>http://www.borusanlimani.com/ | | |
| 6 | Geographic region of the facility | Marmara | | |
| 7 | Registered Port Authority of facility and contact details | Gemlik Port Authority | | |
| 8 | Registered Municipality of facility and contact details | Gemlik Municipality | | |
| 9 | Name of Free Zone or Organized Industrial Zone of the facility | - | | |
| 10 | Validity date of Coastal Facility Operating License/Provisional Operating Permit Document | 01/06/2016 | | |
| 11 | Activity status of the facility (X) | Own load and additional 3rd Party (X) | Own load (...) | 3. Party (...) |
| 12 | Name and surname of the facility manager contact details (phone, fax, e-mail) | Name Surname: Uygun Değirmenci<br>Phone: 0224 270 13 51<br>Fax: 0224 519 01 53<br>E-mail: udegirmenci@borusan.com | | |
| 13 | Name and surname, contact details of Dangerous Material operations manager of the facility (phone, fax, e-mail) | Name Surname: Evrim İnce<br>Phone: 0 532 703 77 08<br>E-mail: eince@borusan.com | | |
| 14 | Name and surname, contact details of Dangerous Material Safety Consultant of the facility (phone, fax, e-mail) | Name Surname: Evrim İnce<br>Phone: 0 532 703 77 08<br>E-mail: eince@borusan.com | | |
| 15 | Sea coordinates of the facility | 40° 25' 12" N - 29° 05' 18" E | | |
| 16 | Types of dangerous materials handled in the facility<br>(The loads within the scope of MARPOL Annex-I, IMDG Code, IBC Code, IGC Code, IMSBC Code, Grain Code, TDC Code and asphalt/bitumen and scrap loads) | IMO CLASS (2,1-2,2-2,3-3-4,1-4,2-4,3-5,1-5,2-6,1-8-9) | | |
| 17 | Type of ships to approach facility | Container Ship, General Cargo Ship, RoRo Ships and Bulk load ship | | |

| | | |
|---|---|---|
| 18 | Distance of facility to main road (kilometer) | 4.4 Km |
| 19 | Distance of facility to railway (kilometer) or railway connection (Yes/No) | No railway connection. |

| | | | |
|---|---|---|---|
| 20 | Name of the closest airport and its distance to the facility (kilometer) | Bursa Yenişehir Airport – 43.16 Km | |
| 21 | Load handling capacity of the facility (Ton/Year; TEU/Year; Vehicle/Year | 3,500,000 m.tons / year<br>400,000 Teu's / year<br>355,000 Units / year | |
| 22 | Whether crap handling is performed in the facility | Crap handling is performed. | |
| 23 | Is there any border crossing? (Yes/No) | No | |
| 24 | Is there any air side? (Yes/No) | Yes | |
| 25 | Load handling equipment and their capacities | 3 pcs SSG and 3 pcsMHC, 8 pcs RTG crane, 4 pcs Overhead crane, | |
| 26 | Storage tank capacity ($m^3$) | N.A. | |
| 27 | Open storage area ($m^2$) | 230.582,64 $m^2$ | |
| 28 | Semi covered storage area ($m^2$) | N.A. | |
| 29 | Covered storage area ($m^2$) | 14.884,32 $m^2$ | |
| 30 | Specified fumigation and/or de-fumigation area ($m^2$) | Specified by taking necessary measures by number of containers of fumigation and de-fumigation. | |
| 31 | Name/title contact details of guidance and towage services provider | Gemport-Römorkaj-Pilotaj TIC. A.S. | |
| 32 | Has a Safety Plan been created? (Yes/No) | Yes / ISPS Code Safety Plan | |
| 33 | Waste Receiving Facility capacity (This section will be organized separately by wastes received by the facility. | Waste Type | Capacity ($m^3$) |
| | | Slac | 50 $m^3$ |
| | | Sintine | 50 $m^3$ |

34 Features of Dock/Pier etc. areas

| Dock/Pier No | Length (meter) | Width (meter) | Maximum water depth (meter) | Minimum water depth (meter) | Tonnage and length of biggest ship to approach (DWT or GRT - meter) |
|---|---|---|---|---|---|
| Pier no. 1 | 254 | 27 | 11 | 14 | 60,000 DWT |
| Pier no. 2 | 204 | 27 | 10 | 13 | 60,000 DWT |
| Pier no. 3 | 165 | 15 | 8 | 9 | 30,000 DWT |
| Pier no. 4 | 165 | 15 | 7 | 9 | 20,000 DWT |
| Pier no. 5 | 560 | 32 | 14.5 | 15 | 90,000 DWT |
| Pier no. 6 | 210 | 32 | 8 | 12 | 60,000 DWT |

| Name of pipeline (If any, in facility) | Number (pcs) | Length (meter) | Diameter (inch) |
|---|---|---|---|
| N.A. | - | - | - |

### 1.2 Procedures for shipment/unloading, handling and storage regarding dangerous cargoes handled and temporarily stored in the Coastal Facility

Class 1 explosive materials, class 6.2 infectious substances and class 7 radioactivedangerous cargoes are handled, stored, stacked at our port. Class 2 gas cargoes are decided to be processed sousplan by providing MSDS forms, making cargo analysis or taking to the field provided that they are notified in advance. Also loading and unloading of bulk petroleum and petroleum products outside the scope of coastal facility permit aren't allowed in Port docks. Oil-fuel refill and waste collection (solid-liquid) can ve provided for ships with the permission of Port Authority.

### 1.3 Shipment/unloading, handling and storage procedures regarding cargoes within the scope of IMDG Code

These procedures are described and provided under the related titles and annexes in this guides.

## 2) LIABILITIES

### 2.1 Liabilities of load attendant

a) Prepares, have prepared all mandatory documents, information and papers related to dangerous cargoes and ensures that these documents accompany the load during the activity of transportation.
b) Ensures that all related staff are trained in risks of dangerous cargoes transported by sea, safety measures, safe work, emergency measures, security and similar subjects, keeps training records.
c) Ensures that dangerous cargoes are safely loaded into approved and regular package, container and cargo transportation unit, stacked, secured, transported and unloaded.
ç) Ensures that dangerous cargoes are classified, defined, packaged, marked, labelled, plated in accordance with the legislation.
d) Ensures that necessary safety precautions are taken for dangerous materials which are irregular, unsafe or poses risk for people and environment.
e) Provides necessary information and support for authorities in the event of emergency or accident.
f) Reports dangerous cargo accidents occurring in the area of liability to the administration.
g) Submits requested information and documents and provides necessary collaboration during checks by official authorities.

### 2.2 Liabilities of Coastal Facility Operator

a) Ensures that ships approach and moor in a regular, guarded, safe way.
b) Ensures that entry-exit system between ship and coast is regular and safe.
c) Ensures that people assigned to the activities of loading, unloading and handling dangerous cargoes get training.

ç) Ensures that dangerous cargoes in the operational area are safely and regularly transported, handled, separated, stacked, temporarily kept and controlled by staff who is suitably qualified, trained and took occupational safety measures.
d) Requests all mandatory documents, information and papers related to dangerous cargoes from load attendant and ensures that these documents accompany the load during the activity of transportation.
e) Keeps up-to-date list of all dangerous cargoes in the operational area.
f) Ensures that all operational staff are trained in risks of dangerous cargoes handled, safety measures, safe work, emergency measures, security and similar subjects, keeps training records.
g) Checks relevant papers for confirming that dangerous cargoes entering their facilities are duly defined, classified, certified, packaged, labelled, declared, safely loaded and carried in an approved and regular package, container and cargo transportation unit.
d) Takes necessary safety precautions for dangerous materials which are irregular, unsafe or poses risk for people and environment and reports to port authority.
h) Ensures that emergency arrangements are made and all related people are informed hereof.
f) Reports dangerous cargo accidents occurring in the operational area of liability to the port authority.
i) Provides
necessary support and collaboration during checks by official authorities.
j) Performs activities related to dangerous materials in dock, pier, warehouse and storehouses established in accordance with these operations.
k) Equips docks and piers reserved for ships and vessels to load or unload bulk petroleum and petroleum products with fixtures and equipment suited for this operation.
l) Ensures that dangerous materials which are unable or not allowed to be kept temporarily in the operational area are transported outside coastal facility as soon as possible without delay.
m) Cannot have ships and vessels carrying dangerous cargoes berth to pier and dock without permission of port authority.
n) Creates storage area in accordance with separation and stacking rules for containers carrying dangerous material and takes necessary fire, environment and other safety precautions in this area. People who conduct loading, unloading or transshipment with ship officers during loading, unloading or transshipping dangerous materials of ships and vessels take necessary safety precautions against heat and other hazards particularly in hot seasons. Combustibles are kept away from sparkling operations and no sparkling vehicle or tool is operated in dangerous cargo handling area.
o) Prepares emergency evacuation plan for evacuation of ships and vessels from coastal facilities in the event of an emergency.

## 2.3 Liabilities of Shipmaster

a) Ensures that equipment and devices of the ship are in good condition for dangerous cargo transportation.

b) Requests all mandatory documents, information and papers related to dangerous cargoes from coastal facility and load attendant and ensures that they accompany the dangerous cargo.
c) Ensures that safety measures related to loading, stacking, separation, transportation and unloading of dangerous cargoes in his/her ship are applied in full and maintained, performs necessary controls and checks.
ç) Checks that dangerous cargoes entering his/her ship are duly defined, classified, certified, packaged, marked, labelled, declared, safely loaded and carried in an approved and regular package, container and cargo transportation unit.
d) Ensures that all crew is informed and trained in risks of carried, loaded, unloaded dangerous cargoes, safety measures, safe work, emergency measures and similar subjects.

## 2.4 Dangerous Material Safety Consultant liabilities

Monitor compliance of dangerous materials with the requirements of their transportation.
Suggest proposals to the coastal facility on transportation of dangerous materials.
Prepare annual report to coastal facility on coastal facility operator's activities for transportation of dangerous materials. (Annual reports are kept for 5 years and submitted to administration upon request.)

Check the application and methods indicated below;

Checking that dangerous materials arriving at facility are defined properly, proper shipment names of dangerous materials are used, certified, packed/packaged, labelled and declared, safely loaded and carried in an approved and regular package, container or cargo transportation unit, and procedures for reporting inspection results.
Shipment/unloading procedure regarding handled and temporarily stored dangerous cargoes,
Whether special requirements of coastal facility regarding dangerous materials are considered while purchasing transport vehicles regarding handle dangerous goods,
Checking methods for equipment used at transportation, loading and unloading of dangerous materials,
Whether coastal facility employees are trained properly including changes to legislation and whether these training records are kept,
Suitability of emergency methods to be applied in the event that an accident or a event to affect safety takes place during transportation, loading and unloading of dangerous materials,
Suitability of the reports prepared for serious accidents, events or serious violations taking place during transportation, loading and unloading of dangerous materials,
Determining what are the necessary measures against re-emergence of accidents, events or serious violations and evaluating the application performed,
To what extent rules related to Selection of subcontractors or 3rd parties and transportation of dangerous materials are considered,
Identifying whether people serving at transportation, handling, storage and shipment/unloading of dangerous materials have detailed information on operational procedures and instructions

Suitability of the measures taken to be ready for risks during transportation, handling, storage and shipment/unloading of dangerous materials
Procedures regarding what all mandatory document, information and papers related to dangerous materials are.
Procedures for safe approach, mooring, loading/unloading, harbouring or anchoring of dangerous material carrying ships to coastal facility day and night.
Procedures regarding additional measures required to be taken per seasonal conditions for shipment, unloading and transshipment operations of dangerous materials.
Procedures for fumigation, gas measurement and degassing actions and operations.
Procedures for keeping records and statistics of dangerous materials,
Verification of the issues regarding potential, capability and capacity of coastal facility to respond emergencies,
Suitability of the regulations for first responses to accidents including dangerous materials,
Procedures for handling and disposal of damaged dangerous cargoes and wastes contaminated by dangerous cargoes,
Information on personal protective equipment and procedures for their use.

### 2.5 Liabilities of the 3rd parties, cargo/ship agency etc. operating in the coastal Facility

Have the staff to perform operations in the coastal facility received trainings indicated in the circular of the Administration no. 79462207/315 on 27.03.2013,
Act in compliance with the rules indicated in the IMDG Code at coastal facility,
Act in compliance with the Dangerous Material Guide and procedures regarding Dangerous materials created by coastal facility,
Report to facility managers if any unsuitability is identified at handling, transportation and storage of dangerous materials at coastal facility,
Send to coastal facility management and Administration the (SDS) Form, forming a significant part of works for elimination of Occupational Health Safety risks to occur during use and storage of dangerous materials, prepared for correctly and adequately informing the user and including dangers and risks of related dangerous materials and other information

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

### 3.1 Directive on Transport of Dangerous Goods by Sea

**ARTICLE 12** – (1) Coastal facility operators with Dangerous Goods Conformity Certificate take following precautions.
a) Coastal facility operators ensure that dangerous materials are transported outside of the coastal facility as soon as possible without keeping in the port area if they can't be stored in the area where they are unloaded at pier or dock.
b) Dangerous goods are packaged appropriately and there are information describing the dangerous goods and information regarding risk and safety measures on package.

c) Coastal facility staff, ship's crew and other people authorized for goods assigned to handling of dangerous goods wear protective clothes in accordance with physical and chemical features of load during loading, unloading and storage.
ç) People to respond fire in the dangerous goods handling area are equipped with fire fighting equipment and fire extinguisher and first aid units and equipment are kept ready to use at any time.
d) Coastal facility operators will prepare emergency evacuation plan for evacuation of ships and vessels from coastal facilities in emergencies and presents for approval of port authority.
e) Coastal facility operators are obliged to take fire, security and safety precautions.
f) Coastal facility operators have the issues indicated in this article approved by authority and announces to whom concerned.
g) Provisions of this article are checked by port authority and if any inconvenience is identified, operation is stopped and inconvenience is eliminated.

### 3.2 Appropriately packaged dangerous goods, presence of information describing the dangerous goods and information regarding risk and safety measures on package

All classification, stacking-separation, plate attachment, labelling, packaging issues at port area, transportation units, cargo transportation units and packages are under the liability of sender and carrier. Sender has to send dangerous materials in regular and approved packages. Describing information, risks and information regarding safety precautions of packages are under the liability of sender.

## 4. CLASSES, TRANSPORTATION, SHIPMENT/UNLOADING, HANDLING, SEPARATION, STACKING and STORING DANGEROUS MATERIALS

### 4.1 Dangerous Material Classes

Classification of dangerous goods handled at port facility must be in compliance with IMDG Code directive. Classification principles and criteria for dangerous goods are explained in detail in IMDG Code Part 2. Dangerous goods not classified as necessary can't be processed. All expenses for dangerous materials not properly reported, incorrectly or deficiently reported to port facility shall be recoursed to the load attendant.

**Class 1:Explosives**


**Class 1.1**: **Mass and Quick Explosives**

Includes the explosives to cause massive explosion. Affects almost all loads in the event of an explosion.


**Class 1.2**: **With Flying Objects But Not Exploding Massively**

Includes the explosives having the risk of flying objects but not to cause a massive explosion.


**Class 1.3: Flame Explosives**

Includes the explosives having the risk of starting a fire, with mild explosive intensity and with leastwise danger of flying objects, but not to cause massive explosion.


**Class 1.4: Low Damage Explosives**

Includes the explosives having the risk of mild explosion, whose impact won't surpass its container and cause an explosion or fire outside.


**Class 1.5: Hard to Explode But Mass Explosives**

Includes the explosives which can explode massively but is very hard to explode and with very low sensitivity.


**Class 1.6: Hard to Explode and Without the Danger of Mass Explosion**

Includes the explosives both which are very hard to explode, with very low sensitivity and without the danger of mass explosion.

**Class 2 :Gases**

**Class 2.1: Combustible Gases**


Substances that are 454 kg (1001 lbs) and gaseous below 20°C (68°F). Pressure of these substances is 101,3 kPa (14,7 psi) and their boiling points under this pressure are at or below 20°C (68°F). They are inflammable with pressure of 101,3 kPa (14,7 psi) and air mixture below 13%. Or they are combustible at minimum 12 % air mixture and 101,3 kPa (14,7 psi) pressure without lower limit

**Class 2.2: Combustible and Non-Hazardous Gases**


Compressed gases, liquefied gases, compressed cryogenic gases, compressed gases in a solution and oxidizing gases are included into this class. Combustible and non-hazardous gases are those with 280 kPa (40.6 psia) pressure content at 20°C (68°F) temperature and not included in classes 2.1 and 2.3.

**Class 2.3: Poisonous Gases**


Known to be hazardous on human health and creating health hazard during transportation
Poisonous gases are substances having 101,3 kPa pressure with temperature at or below 20°C (with boiling points at or below 20°C under this pressure), even though their hazard on human health isn't proven exactly, having LC50 value over 5000 ml/m3 during the tests made on animals.

**Class 3 :Combustible Liquids**


Combustible liquids are substances having flashing degree not more than 60,5°C (141°F) or being in liquid form and kept heated for transportation and with a flashing degree at or above 37,8°C (100°F).

**Class 4 :Combustible Solids**


**Class 4.1: Combustible Solids**

Solids which are combustible as they are. This substances can catch fire via friction and their combustion velocity is higher than 2,2 mm (0,087 inch) per second. Metal powders which are flammable and entirely reacting within 10 minutes or less time are included in this class.
Thermally unstable, having strong exothermic reaction without air participation and self-flammable materials are also in this category.
The explosives included in Class 1 but without activity or the substances particularly included in this class by manufacturer.


**Class 4.2: Self-Flammable Solids**

Self flammable substances are pyrophoric substances. These are substances that catch fire in the fifth minute of contact with air or get hot without any additional energy source in the event of contact with air.


**Class 4.3: Those Posing Danger In Contact With Water**

These substances are the ones that release combustible or hazardous substances in the event of contact with water. Danger criteria is releasing more than 1 Litres per hour for 1 kg of substance.

**Class 5 : Oxidizing Substances and Organic Peroxides**


**Class 5.1: Oxidizing Agents**

Such substances are the one that enable or quicken other substances to burn by releasing oxygen.


**Class 5.2: Organic Peroxides**

Organic peroxides (Class 5.2) are substances that feature oxygen in the form of O-O. These might be considered as a derivative of hydrogen peroxide and are generated through replacement of one or more hydrogen atoms in the water by organic radicals.

## Class 6: Toxic and Infectious Substances


### Class 6.1: Toxic (Poisonous) Substances

Substances known to be potentially hazardous for people during transportation are classified as toxic substances. Also, substances identified to be poisonous during the tests on animals are considered hazardous also for people and included in this category.


### Class 6.2: Infectious Substances

Substances with infectious disease content are the ones known or suspected to have pathogen. Pathogens are micro organisms (bacteria, viruses, fungi etc.) or other factors leading to disease at animals or people.

## Class 7: Radioactive Substances


### Radioactive

Substances bearing yellow RADIOACTIVE III (LSA-III) label. Certain radioactive substances don't have this label but must have banner showing the radioactivity.

## Class 8: Abrasive (Corrosive) Substances


### Corrosive

Substances having abrasive, thinner effect on human skin in the event of contact for a certain period of time. Substances having corrosive effect on steel and aluminium are also included into this class.

**Class 9: Other Dangerous Substances**


**Other Dangerous Substances**

Substances posing danger during transportation but not fitting in any of the defined classes are included into this class. This class includes the following substances:

- Anaesthetic or other type of hazardous substances. These are the substances which can create such a discomfort that would prevent flight crew or ship crew from performing their duties.

- Substances with increased temperature degree, hazardous substances, hazardous wastes on human health or substances with marine polluting risk

## 4.2 Dangerous Material Packs and Packages

Packs and packages of dangerous materials handled inour port facility must be in compliance with provisions of IMDG Code legislation. Requirements for packs and packages of dangerous materials are explained in detail in IMDG Code Parts 4 and 6. Dangerous materials not packaged as necessary can't be processed. All costs related to improper and unapproved packages are recoursed to load attendant.

## 4.3 Placards, Plates, Marks and Labels Regarding Dangerous Materials

Plates, marks and labels of dangerous materials handled in our port facility must be in compliance with provisions of IMDG Code and other related legislation. Plates, sheets, marks and labels regarding dangerous materials are explained in detail in IMDG Code Part 5. Dangerous materials and cargo transportation units not marked, labelled, plated as necessary aren't processed. All costs resulting for this type of dangerous materials are recoursed to load attendant.

## 4.4 Dangerous Material Signs and Packing Groups

Signs and packing groups of dangerous materials handled in our port must be in compliance with provisions of IMDG Code and other related legislation. Signs and packing groups regarding dangerous materials are explained
in detail in IMDG Code Parts 2 and 5 and in ‘‘Dangerous Material List’’. Dangerous materials not marked and assigned to packing group as necessary aren't processed. All costs resulting for this type of dangerous materials are recoursed to load attendant.

## 4.5 On Board and In Port Separation Tables by Dangerous Material Classes

On board stacking and separation procedures by classes of dangerous materials handled in our port facility must be in compliance with provisions of IMDG Code and other related legislation. On board stacking and separation procedures regarding dangerous materials are explained in detail in IMDG Code Part 7. Following this stacking and separation provisions is under the responsibility of shipmaster.

## 4.6 Separation Distances and Separation Terms of Dangerous Materials in Locker Storages

Our port facility has specific limited open storage area for dangerous materials. How to stack and separate dangerous materials in stacking area by their classes is explained in this guide part 2.4.

***IMDG SEPARATION TABLE, ITS USE;***

These separation conditions are sophisticated and effort must be made for strict compliance with the rules. IMDG Code helps stacking planner in two ways:

- General rules of separation between IMDG classes are explained in the table provided in Volume 1 Section 7.1, separation categories provided in the table are between 1 and 4, stacking separation degree is required for each class pair: ‘1’ =’away from....’, ‘2’ = ‘separate from....’ etc.

- Individual (single) records in the column 16 of Dangerous Goods List (DGL) (Volume 2) indicates whether special separation conditions are applied, any condition stated therein supersedes the

general rules added to the table.

Thus stacking planner must first look at separation conditions in DGL for dangerous goods and later if general rules are to be followed, material must be checked from the separation table by class number for seeing which separation category is applied from separation in IMDG classes.

AYRISTIRMA TABLOSU

| SINIF | 1.1 1.2 1.5 | 1.3 1.5 | 1.4 | 2.1 | 2.2 | 2.3 | 3 | 4.1 | 4.2 | 4.3 | 5.1 | 5.2 | 6.1 | 6.2 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Patlayıcılar 1.1, 1.2, 1.5 | * | * | * | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 2 | 4 | X |
| Patlayıcılar 1.3, 1.6 | * | * | * | 4 | 2 | 2 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | X |
| Patlayıcılar 1.4 | * | * | * | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | X | 4 | 2 | 2 | X |
| Alev alabilen gazlar 2.1 | 4 | 4 | 2 | X | X | X | 2 | 1 | 2 | X | 2 | 2 | X | 4 | 2 | 1 | X |
| Yanıcı ve zehirli olmayan gazlar 2.2 | 2 | 2 | 1 | X | X | X | 1 | X | 1 | X | X | 1 | X | 2 | 1 | X | X |
| Zehirli gazlar 2.3 | 2 | 2 | 1 | X | X | X | 2 | X | 2 | X | X | 2 | X | 2 | 1 | X | X |
| Alev alabilen sıvılar 3 | 4 | 4 | 2 | 2 | 1 | 2 | X | X | 2 | 1 | 2 | 2 | X | 3 | 2 | X | X |
| Alev alabilen katılar 4.1 | 4 | 3 | 2 | 1 | X | X | X | X | 1 | X | 1 | 2 | X | 3 | 2 | 1 | X |
| Kendiliğinden yanma maddeler 4.2 | 4 | 3 | 2 | 2 | 1 | 2 | 2 | 1 | X | 1 | 2 | 2 | 1 | 3 | 2 | 1 | X |
| Suyla temas ettiğinde tehlika arz edenler 4.3 | 4 | 4 | 2 | X | X | X | 1 | X | 1 | X | 2 | 2 | X | 2 | 2 | 1 | X |
| Oksitleyici maddeler 5.1 | 4 | 4 | 2 | 2 | X | X | 2 | 1 | 2 | 2 | X | 2 | 1 | 3 | 1 | 2 | X |
| Organik peroksitler 5.2 | 4 | 4 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | X | 1 | 3 | 2 | 2 | X |
| Toksik (zehirli) maddeler 6.1 | 2 | 2 | X | X | X | X | X | X | 1 | X | 1 | 1 | X | 1 | X | X | X |
| Mikrop bulaştırıcı maddeler 6.2 | 4 | 4 | 4 | 4 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | X | 3 | 3 | X |
| Radyoaktif maddeler 7 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | X | 3 | X | 2 | X |
| Aşındırıcı(korozif) maddeler 8 | 4 | 2 | 2 | 1 | X | X | X | 1 | 1 | 1 | 2 | 2 | X | 3 | 2 | X | X |
| Diğer tehlikeli maddeler ve eşyalar 9 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

1 ='...dan uzak'

2 ='...dan ayri'

3 ='...dan bir tam bölme veya ambarla ayri'

4 ='araya giren bir tam bölme veya ambarla uzunlamasina ...dan ayri'

X= DGL'de verilen maddeye özel çizelgeleri gösterir

* = özel çizelgesine bakiniz.

**For example, FORMIC ACID (a Class 8 abrasive liquid material, UN Number 1779)** has no specific separation condition in its schedule and thus bears only the requirements of the class to which it belongs: ‘away from’ Classes 2.1, 4.1, 4.2 and 4.3, ‘separated from’ Classes 1.3, 1.4, 1.6, 5.1, 5.2 and 7, ‘separated from.... one full section or warehouse and ’ Class 6.2 and ‘separated from.....one full section or warehouse lengthways’ Classes 1.1, 1.2 and 1.5. 'X' records in other columns individually represent the correlation between separation conditions (if any) and other classes as shown also in DGL schedule. On the other hand, BROMINE CHLORIDE (Class 2.3 toxic gas, UN Number 2901) bears also the risks of Class 5.1 and Class 8 and it's recommended that separation conditions are like Class 5.1 but kept separate from 'Class 7' in its own DGL schedule. Other substances might be provided with certain separation rules such as 'separated from chlorine' or 'separated from acids', all of the Class 1 explosive records are marked with (*); that means special compliance rules must be applied; compliance groups have been referred before (Step 2.4). Individual schedules assign letters for Class 1 substances (from A to L N and S) and substances sharing the same letter can be stacked together regardless of their classes and subsections.

Adding the classes of 'secondary danger' to a specific substance increases the complexity of separation table readings. Each of the secondary risks might require a different and stricter separation and thus schedule of the Code must be referred

for both substance and every secondary risk. Stacking planners on board will find it useful to refer to other published tables where separation is shown class by class and additional risk classes are shown in separate lines.

We should remember that separation conditions detailed in the IMDG Code are specifically for stacking on board. Port planners can opt for using directives as basis for port storage separation of dangerous cargoes and Code actually recommends it.

Means interpretation of such statements like 'away from...', 'separate from...' and etc. in terms of separation at open and closed storage areas.

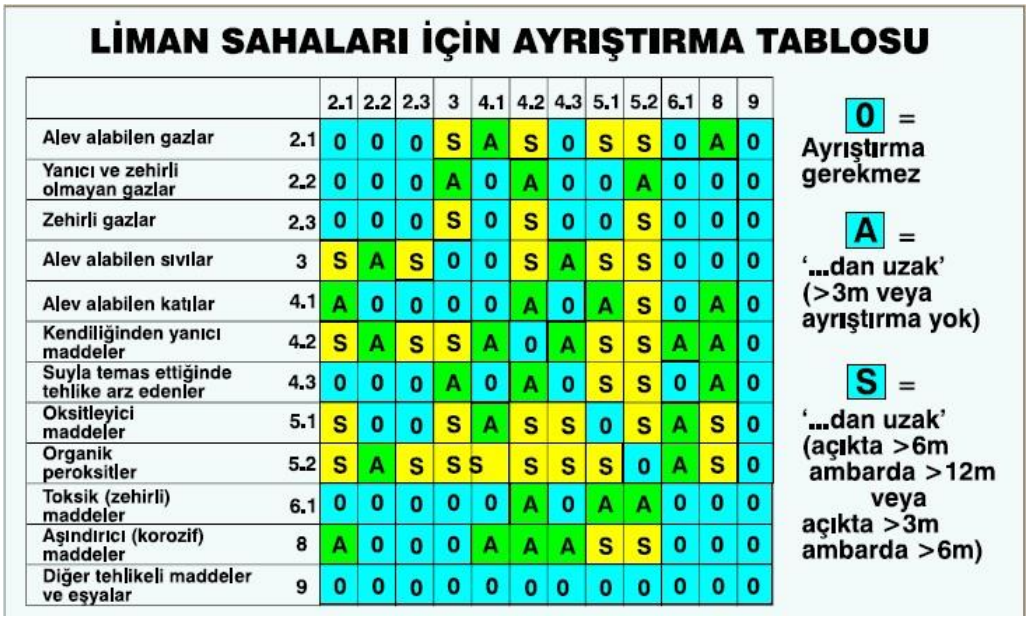
In any case, there is a more directly related guide of IMO titled 'Recommendations on Safe Transportation of Dangerous Cargoes and Related activities in the Port Areas'.

This document includes a port storage separation table in line with IMDG Code stacking table. But, (this table) excludes Class 1 (explosives), Class 6.2 (infectious substances) and Class 7 (radioactive substances) substances; this is because these substances must be loaded via port storages routinely, not unloaded and special arrangements must be made for handling them.

In the table, only three separation categories are defined for port storage:

- '0' indicates dangerous material pairs not needed to be separated from each other (if individual schedules aren't required, always must be checked first);
- 'A' indicates the condition for separation of pair 'away' from the other class while 'S' requires the separation between pairs in the 'separate from...' category.

- **For example, according to Table, Class 2.2 substances** (non-toxic, non-combustible) must be separated from only Class 3, 4.2 and 5.2 substances and these separations are 'away from...', which means category 'A'. On the other hand, combustible liquid substances (Class 3) must be stored 'away from' substances in Classes 2.2 and 4.3 and 'separated from' cargoes in Classes 2.1, 2.3, 4.2, 5.1 and 5.2.



**LİMAN SAHALARI İÇİN AYRIŞTIRMA TABLOSU**

| | | 2.1 | 2.2 | 2.3 | 3 | 4.1 | 4.2 | 4.3 | 5.1 | 5.2 | 6.1 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alev alabilen gazlar | 2.1 | 0 | 0 | 0 | S | A | S | 0 | S | S | 0 | A | 0 |
| Yanıcı ve zehirli olmayan gazlar | 2.2 | 0 | 0 | 0 | A | 0 | A | 0 | 0 | A | 0 | 0 | 0 |
| Zehirli gazlar | 2.3 | 0 | 0 | 0 | S | 0 | S | 0 | 0 | S | 0 | 0 | 0 |
| Alev alabilen sıvılar | 3 | S | A | S | 0 | 0 | S | A | S | S | 0 | 0 | 0 |
| Alev alabilen katılar | 4.1 | A | 0 | 0 | 0 | 0 | A | 0 | A | S | 0 | A | 0 |
| Kendiliğinden yanıcı maddeler | 4.2 | S | A | S | S | A | 0 | A | S | S | A | A | 0 |
| Suyla temas ettiğinde tehlike arz edenler | 4.3 | 0 | 0 | 0 | A | 0 | A | 0 | S | S | 0 | A | 0 |
| Oksitleyici maddeler | 5.1 | S | 0 | 0 | S | A | S | S | 0 | S | A | S | 0 |
| Organik peroksitler | 5.2 | S | A | S | S | S | S | S | S | 0 | A | S | 0 |
| Toksik (zehirli) maddeler | 6.1 | 0 | 0 | 0 | 0 | 0 | A | 0 | A | A | 0 | 0 | 0 |
| Aşındırıcı (korozif) maddeler | 8 | A | 0 | 0 | 0 | A | A | A | S | S | 0 | 0 | 0 |
| Diğer tehlikeli maddeler ve eşyalar | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**0** = Ayrıştırma gerekmez

**A** = '...dan uzak' (>3m veya ayrıştırma yok)

**S** = '...dan uzak' (açıkta >6m ambarda >12m veya açıkta >3m ambarda >6m)

- Clean and precise interpretations of '**away from....**' **and** '**separated from...**' **statements** varies by package type and storage place; open (container area in the container terminal or open general cargo dock) or closed storage (for example warehouse of open cargo dock, storehouse or CFS)

- In the 'away from...' category for dangerous substances in individual packages without containers or in medium size freight containers or loaded in or on trailers, open road vehicles, train coaches and any type of open container, there must be a minimum of 3 meter distance between aforementioned two class substances regardless of their storage in a closed warehouse or an open storage area. 'separated from...' indicates a minimum distance of 6 meters between packages if in open area but 12 meters if in a warehouse or storage (unless there is an approved fire wall, which provides adequate separation by itself).

- While no separation is required for '0' and 'A' categories of dangerous cargoes loaded into portable tank or closed containers in closed road vehicles, a minimum distance of three meters in open storage area and a minimum distance of six meters in a warehouse or storehouse is required for 'separation from...' category (unless there is an approved fire wall, which provides adequate separation by itself).

Regardless of the package type, if substance has a secondary risk label or two or more substance are loaded into one transportation unit (for example container), strictest separation condition is applied, this decision might result from primary danger or secondary danger. Also, previously stated separation distances are horizontal distances; packages or containers of different IMDG classes mustn't be stored on another; this is applicable to both secondary dangers and primary dangers.

### 4.7 Dangerous Cargo Documents

Documents related to dangerous materials handled in our port must be in compliance with provisions of IMDG Code and other related legislation. Document and documentation requirements regarding dangerous materials are explained in detail in IMDG Code Part 5. Dangerous materials without required documents and not presented properly aren't processed. All costs resulting for this type of dangerous materials are recoursed to load attendant.

Documentation, check and record work and operations are indicated in detail in this Guide Part 7.

## 5. DANGEROUS CARGO MANUAL

Dangerous Cargo Manual prepared within the port operations is provided as Annex 10.

## 6. OPERATIONAL ISSUES

Procedures for safe approach, mooring, loading/unloading, harbouring or anchoring of dangerous material carrying ships day and night are indicated in part 2 of this guide.

Docks for dangerous cargo handling at Borusan Port are docks no. 1, 2-3,4-5, 6. Layout plan showing port dock numbers is provided in **ANNEX-1,** while Photos Regarding Coastal Facility in**Annex-2**.

**Procedures for safe approach, mooring, loading/unloading, harbouring or anchoring of dangerous material carrying ships day and night**

**Implementation :**

- According to **Pier Ship Traffic Position no. 4b-F44**, berthing permit is provided to ships approved by Port Operations Manager and Port Traffic Planning and Reporting Leader (such as draft of pier, equipment suitability, weather conditions, load status and features).

- The ships registered and approved in **Pier Ship Traffic Position no. 4b-F44** are evaluated in the planning meeting and the ships expected to berth are processed into Dock Planning Schedule. Berthing direction is given to its agency if dock and ship papers are available, to Gemport Pilot if it's subjected to pilotage, if not via vhf radio or phone within the knowledge of operation supervisors. Shift Superintendents and related supervisors are provided with written information in relation to the berthing. (Responsible: Port Traffic Planning And Reporting Leader, Port Traffic Planning And Reporting Officer)

- Berthing of ships having problems with papers are suspended temporarily. Solution of the problem is achieved by having written and verbal communication between related departments and customer. (Responsible: Port Operations Manager and Port Traffic Planning And Reporting Leader, Port Traffic Planning And Reporting Officer)

- Checked if ships berth in accordance with the directions given and Port Operations Manager and Traffic Planning And Reporting Leader is informed about the subject. (Responsible: Shift Superintendent of related department)

- Berthing is determined in compliance with Dock Planning Schedule after 17.30 during weekdays, in consultation with Duty Superintendent during holidays and berthing direction is given. (Shift Superintendent of responsible related department)

- Berthing of the ship is recorded to **Pier Shift Report no. 4b-F48** with pier no, date and time. (Responsible: Port Shift Superintendent)

- After ship completes berthing, **Notice no. 4b-F52** is signed by ship mastership for every ship.

### 6.2 Procedures regarding additional measures required to be taken per seasonal conditions for shipment, unloading and transshipment operations of dangerous materials

People who conduct loading, unloading or transshipment with ship officers during loading, unloading or transshipping dangerous materials of ships and vessels shall take necessary safety precautions against heat and other hazards particularly in

hot seasons.

### 6.3 Procedures on keeping combustible, inflammable and explosive materials away from sparkling/potentially sparkling operations and not operating equipment or tools which cause/can cause sparkles in dangerous cargo handling, stacking and storage areas

It's prohibited to perform sparkling operations such as smoking, lighting a fire, welding at load deck and points of ships having berthed and carrying dangerous cargo and at coastal storage places of dangerous cargoes.

Combustibles are kept away from sparkling operations and no sparkling vehicle or tool is operated in dangerous cargo handling area.

### 6.4 Procedures regarding fumigation, gas measurement and degassing actions and operations

Fumigation is not performed by Port Authority for cargo transportation units (CTU) and the load in it. Written permission shall be obtained from Port Authority for fumigation operation in the port area under the responsibility of cargo sender.

Party performing fumigation accepts in advance to perform operation in compliance with;
Circular no. MSC-MEPC.2/Circ.1 on prevention and disposal of potential damages to marine environment and human health by fumigants used at fumigation operations.
IMDG Code Practice Direction no. 2013/180 on 23.09.2013 by Ministry of Transportation, Maritime Affairs and Communication for actions and operations of fumigation, gas measurement and degassing. Performs fumigation operations in accordance with this legislation.

Firms identified not to be acting in compliance with these rules aren't allowed to perform operation. All arising expenses are recoursed to whom concerned.

Area to perform fumigation is determined by port facility. The duty and responsibility of taking occupational health safety and environmental safety measures during fumigation operation belongs to the party performing the fumigation.

### 6.5 Fumigation at Ships:

Fumigation isn't performed at ships berthed to port decks. Fumigation of the ships carrying and/or to carry dangerous substances are performed with the permission of Port Authority in the appropriate mooring area. Responsibility in this subject belongs to shipmaster.

## 7. DOCUMENTATION, CHECK AND REGISTRATION

Subjects related to how the documents related to Dangerous Substances will be asked from cargo owner, agency or suppliers and registered at port are explained in Borusan Port Dangerous Cargo Manual (ANNEX-18).

## 8. EMERGENCIES, EMERGENCY PREPAREDNESS and INTERVENTION

The issues related to how any type of emergency that can or is likely to be experienced in relation with dangerous cargoes in port facility will be responded ashore and afloat are explained in Borusan Emergency Action Plan (ANNEX-7).

## 9. OCCUPATIONAL HEALTH and SAFETY

OHSAS 18001 Occupational Health and Safety Management System is applied

at our port.

Below stated trainings are provided to all staff as per Occupational Health and

Safety rules and applications;

- Port Occupational Health Safety General Subjects Training
- Port Occupational Health Safety Technical Subjects Training
- Port Occupational Health Safety Health Subjects Training
- Working with Dangerous Chemicals and Leakage response Training,
- IMDG Code General Awareness and Mission Related Training,
- Emergency Awareness Training,
- Environmental Consciousness and Waste Management Training,

The directives applied in relation to Occupational Health Safety are provided under Title Annex-19.

You can see the list of Occupational Health and Safety documents below.

| Document Code | Document Name | Document Type |
|---|---|---|
| 11-K43 | Port Facility HSE Applications and Basis | Guide |
| 11-K49 | Near Miss Notification and Management Guide | Guide |
| 11-T07 | HSE Performance Reporting Directive | Directive |
| 11-T10 | Port Portable Fire Extinguisher Directive | Directive |
| 11-T11 | Port Visitor HSE Directive | Directive |
| 11-T23 | Personal Protective Equipment Directive | Directive |
| 11-T24 | Fuel Filling and Discharging Directive | Directive |
| 11-T30 | Port Lashing Cage Control and Use Directive | Directive |
| 11-T31 | Waste Material Response Directive | Directive |
| 11-T33 | Dangerous Chemical Storage Directive | Directive |
| 11-T36 | Occupational Safety Order for Container Ships | Guide |
| 11-T37 | Eye Solution Use Directive | Directive |
| 11-T38 | Directive Regarding Qualities, Selection and Assignment of Employee Representative | Directive |
| 11-T39 | Project Loads Approach Directive | Directive |
| 11-T81 | First Aid Application Directive | Directive |
| 11-T82 | Emergency Patient Dispatch Procedure | Directive |
| 11-T83 | Health Unit Operating Directive | Directive |
| 11-T84 | HSE Video Watching Rules Directive | Directive |
| 15-K15 | Guide for First Aid and Things to Do During Accident | Analysis |
| 15-T04 | Directive on Checking and Tracking Fire Extinguishers | Directive |
| 15-T08 | Directive for Things to Do In Case of Occupational Accident at Port | Directive |
| 15-T53 | Rigger General Operational Safety Rules Directive | Directive |
| 4b-03 | Rules to be Followed by Company Officials Visiting for Survey, Customer, Agency and Customs Operations | Directive |
| 4d-T01 | MSDS and Material Storage Conditions Information Supply Directive | Directive |
| 11-K75 | Guide for HSE Management of Supplier, Contractor and Other Employees to Work at Borusan Logistics | Guide |

# 10. OTHER ISSUES

## 10.1 Validity of dangerous material conformity certificate

Ministry is expected to publish directive for Dangerous Material Conformity Certificate application of the facility.

Borusan Port Facility coastal facility operating permit has been renewed until 16.06.2018 on May/2015 within the scope of Regulations on Procedures and Principles Regarding Provision of Operating Permit to Coastal Facilities, published in Official Gazette no. 26438 on 18/2/2007.

## 10.2 Duties identified for Dangerous Material Safety Consultant

TMGD duties and responsibilities are indicated in the Article 23 of "Notice on Dangerous Material Safety Consultancy", published by Ministry of Transportation, Maritime Affairs and Communication.

## 10.3 Issues for those carrying dangerous materials to arrive at/depart from coastal facility via highways (documents required to be provided by dangerous material carrying road vehicles at entrance into-exit from port or coastal facility, equipment and appliances these vehicles are required to have; speed limits in the port area etc. issues)

Road vehicles bringing or taking away dangerous cargo to/from port is checked by Customs Administration at port entry-exit. Port security staff performs necessary registration and checks for issues falling into their area of responsibility.

Vehicle must be equipped with the following as per European Agreement Concerning the International Transportation of Dangerous Substances by Road (ADR) Directive on Transportation of Dangerous Substances by Road:

a- Dangerous Goods Transportation Driver Training Certificate (SRC5)/ADR Driver Training Certificate

b- Valid cargo transportation certificate of vehicle (Vehicle Conformity Certificate/ADR Conformity Certificate) c- Copy of the transportation permit obtained from relevant/competent authorities

for transportation of Class 1, Class 6 and Class 7 dangerous cargoes defined in ADR (changed to annual permit), Class 1 and Class 7 shipment/unloading isn't performed at Port Facility.

d- Dangerous Substances and Dangerous Waste Compulsory Financial Liability Insurance Policy e- Orange plate without letters at front and rear side of the vehicle transporting dangerous cargo

f- Dangerous substance transportation paper

g- Written directive provided to driver by relevant transporter about how vehicle staff will act in case of danger or accident as per ADR regulations

h- Personal and protective equipment to use at emergencies specific to cargo

transported in vehicle
i- Multi Mode Dangerous Goods Transportation Form in ADR Section 5.4.5 for dangerous cargoes transported in multi mode

## 10.4 Speed Limit in Port Area

Maximum speed limit for road vehicles and construction equipment entering port area for exchanging cargoes is 20 Km/h. Administrative sanctions shall be applied by port facility and as per relevant regulations of customs administration to vehicles identified to exceed speed limits for personal type vehicles.

## 10.5 Issues for those carrying dangerous materials to arrive at/depart from coastal facility by sea (day/night signs to be shown at port or coastal facility by dangerous cargo carrying ships and vessels, hot and cold work procedures on board etc. issues)

Ships carrying explosive, flashing, combustible and similar dangerous substances raise B (Bravo) signal flag during day and display a red lantern visible at all directions (360 degrees) during night according to International Regulations for Preventing Collisions at Sea (COLREG).

## 10.6 Cold and Hot Work At Ships Carrying Dangerous Cargo at Port

Unless permission stated in article 22 of Ports Regulations is obtained from Port Authority, ships and vessels at port areas can't perform repair, rasping and painting, welding and other hot work launching lifeboat and/or boat operations or other maintenance operations. Above stated operations are subject to the permission of Port Authority for ships at port including ships carrying dangerous substances as per provision that ships and vessels to have these operations performed must coordinate with coastal facility management if they are at coastal facility management if they are at coastal facility. Unless necessary coordination is made with the port management, such kind of operations can't be performed at ship.

Minimum Safety Requirements Related to Performance of Hot Works at Ship:
a. Before starting the hot operation at ship deck or dock, company official or ship agency to perform hot operation must have obtained written permission for subject hot operation to be performed.
b. Along with the safety precautions asked by the port authority, company official to perform hot work must take any type of additionally required safety precautions at shipand / or dock before starting the hot work. He/she informs port officer about precautions taken. These precautions cover the following:
i. Inspection of domestic areas and adjacent areas including also the tests applied by accredited test bodies for confirming that areas are free from combustible and / or explosive environments and where applicable, not insufficient in terms of oxygen;
ii. Separation of dangerous cargoes and other combustible materials and objects from working areas and adjacent areas.
iii. Active protection of combustible construction elements (i.e. girders, wooden walls, floors, door and ceiling covers) against accidental combustion

iv. For avoiding spread of flame, sparkles and hot particles from work areas to adjacent areas or other areas, sealing open pipe, valve, joint, gap and open parts

v. A plate with hot work authorization information and safety measures must be attached to work area and entrances of all work areas. Authorization information and safety precautions must be easily visible and understood clearly by everyone included in work process.

c. Following issues must be paid attention by ship master and crew during performance of hot work:

i. Checks must be made for confirming that situations didn't change.

ii. Minimum one fire extinguisher or other applicable fire extinguishing equipment must be readily availablefor use during hot work.

iii. During hot work, after hot work is completed and after adequate time from completion of subject work, fire detector must be placed to the area of hot work and adjacent areas where danger might arise due to heat transfer.

## 10.7 Additional issues added by coastal facility

### 10.7.1 Security

Various port security possibilities and capabilities are available at port area where dangerous cargo operations are performed. Port facility is a port facility within the scope of ISPS Code and operates with 1 Security Manager, 1 Security Superintendent, 25 security personnel and 3 shifts 7/24 hours working order. Regular patrols are provided in the port area. Port security is provided actively with 1 security vehicle at each port entry-exit check points, surrounding wire fence with proper height and quality in accordance with ISPS and 109 cameras (CCTV) both indoor and outdoor monitoring whole port area. Number of vehicles and people entering into - exiting from port is recorded instantly in electronic environment and can be monitored instantly.

Provisions of this guide shall be carried out by Port Facility Operations and Planning Directorate.

Contracting company serving as contractor at port is also assigned and liable to apply provisions of this guide.

This guide and its annexes are integral parts of each other.

**Annexes of this guide has been prepared and presented electronically.**

**ANNEXES:**

1- General layout plan of coastal facility
2- General view photos of coastal facility
3- Emergency Contact Points and Contact Information
4- General Layout Plan of the Areas Where Dangerous Cargoes are Handled
5- Fire Plan of the Areas Where Dangerous Cargoes are Handled
6- General Fire Plan of the Facility
7- Emergency Plan
8- Emergency Assembly Points Plan
9- Emergency Management Diagram
10- Dangerous Materials Manual
11- Leakage areas and equipment, entry/exit drawings for CTU and Packages
12- Port Service Ships Inventory
13- Port authority administrative borders, mooring places and harbour pilot entry/exit points sea coordinates
14- Emergency response equipment against marine pollution in port facility
15- Personal protective equipment (PPE) usage map
16- Dangerous material events notification form
17- Inspection results notification form for dangerous material transportation units (CTU's)
18- Other necessary annexes