



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	1 /32



MKS MARMARA PIPELINE AND BUOY SYSTEM

DANGEROUS GOODS HANDLING GUIDE



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DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	3 /32

CONTENTS

REVISION PAGE

TABLE OF CONTENTS

INDEX OF FIGURES AND TABLES APPENDICES

ABBREVIATIONS

DEFINITIONS

PRESENTATION



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	4 /32

REVISION PAGE

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13					



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	5 /32

CONTENTS	3
1. INTRODUCTION	7
1.1. Facility Information Form	8
2. RESPONSIBILITIES	10
2.1. Responsibilities of the Handler of the Goods	10
2.2. Responsibilities of the Carrier	10
2.3. Responsibilities of the Coastal Facility Operator	11
2.4. Responsibilities of the Ship Officer	12
3. RULES AND PRECAUTIONS TO BE ENFORCED BY THE SHORE FACILITY	13
3.1. Unloading Safety	13
3.2. Goods covered by the IBC Code	13
4. CLASS, TRANSPORTATION, LOADING/UNLOADING, HANDLING, SORTING, STACKING AND STORAGE of DANGEROUS LOADS	13
4.1. Classes of dangerous goods	14
4.2. Packages and packing of dangerous goods	15
4.3. Placards, license plates, brands and labels for dangerous goods	16
4.4. Marks and packing groups of dangerous goods	20
4.5. Separating tables on board and at the shore facility according to the classes of dangerous goods	22
4.6. Separation distances and terms for dangerous goods in warehouses	23
5. MANUAL ON DANGEROUS GOODS HANDLED IN SHORE FACILITIES	23
6. OPERATIONAL MATTERS	23
6.1. Procedures for the safe berthing, mooring, loading/unloading, sheltering or anchoring of ships carrying dangerous goods day and night	23
6.2. Procedures for additional measures to be taken according to seasonal conditions for the loading and unloading of dangerous goods	24
6.3. Procedures for keeping flammable, combustible and explosive goods away from spark-generating operations and not utilizing spark-generating tools, equipment or instruments in dangerous goods handling, stowage and storage areas	24
7. DOCUMENTATION CONTROL AND RECORDS	24
7.2. Procedures for keeping an up-to-date list of all dangerous goods on the coastal facility site and other relevant information	25
7.3. Procedures for verifying that dangerous goods arriving at the facility are properly identified, that the correct shipping names of dangerous goods are used, certified, packed, labeled and declared, and that they are safely loaded and transported in the appropriate packing, container or cargo transport unit, and procedures for reporting control results	25
7.4. Procedures for the supply and retention of Safety Data Sheet (SDS)	25
7.5. Procedures for keeping records and statistics of dangerous goods	25
7.6. Information on the Quality Management System	25
8. EMERGENCIES, EMERGENCY PREPARATION AND RESPONSE	25
8.1. Procedures for response to dangerous goods that pose/may pose a risk to life, property and/or the environment and dangerous situations involving dangerous goods	26
8.2. Information on the possibility, capability and capacity of the coastal facility to respond to emergencies	26
8.3. Regulations regarding the first response to accidents involving dangerous goods (Procedures for first response, first aid facilities and capabilities, etc.)	26



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	6 /32

8.4.	Notifications to be made inside and outside the facility in case of emergency.....	26
8.5.	Accident reporting procedures.....	27
8.6.	Methods of coordination, support and cooperation with public authorities.....	27
8.7.	Emergency discharge plan for the removal of ships and marine vessels from the coastal facility in case of emergency	27
8.8.	Procedures for the handling and disposal of damaged dangerous goods and wastes contaminated by dangerous goods	28
8.9.	Emergency drills and their records	28
8.10.	Information on fire protection systems.....	29
8.11.	Procedures for approval, inspection, testing, maintenance and availability of fire protection systems	29
8.12.	Measures to be taken in cases where fire protection systems do not work	29
8.13.	Other risk control equipment.....	29
9.	OCCUPATIONAL HEALTH AND SAFETY.....	30
9.1.	Occupational Health and Safety Measures	30
9.2.	Information on personal protective clothing and procedures for its use	30
9.3.	Confined space entry permit measures and procedures	30
10.	OTHER CONSIDERATIONS	30
10.1.	Validity of the Dangerous Goods Conformity Certificate	30
10.2.	Tasks defined for the Dangerous Goods Safety Advisor	30
10.3.	Considerations for those carrying dangerous goods that will arrive at/leave the coastal facility by road (Documents that road vehicles carrying dangerous goods must have at the entrance/exit from/to the port or coastal facility area, equipment and tools that these vehicles must have, speed limits in the port area, etc.).....	30
10.4.	Considerations for those carrying dangerous goods that will arrive at/leave the coastal facility by sea (day/night signals to be displayed by ships and marine vessels carrying dangerous goods at the port or coastal facility, cold and hot working procedures on ships, etc.).....	30
10.5.	Additional considerations to be added by the coastal facility	31
11.	ANNEXES	31
12.	ABBREVIATIONS	31
13.	DEFINITIONS	32
14.	PRESENTATION	33



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	7 /32

1. INTRODUCTION

UN 1230 Methanol is unloaded at our MKS MARMARA PIPELINE AND BUOY SYSTEM facility.

The main objective is to carry out safe unloading, to protect ethical values and environmental awareness based on the three pillars of sustainability in all operations, and to be a facility that prioritizes global standards in quality, management systems and products.

General information about the facility is given in the Facility Information Form.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	8 /32

1.1. Facility Information Form

1	Name/Title of facility operator	MKS Marmara Entegre Kimya Sanayii A.Ş.		
2	Contact details of the facility operator (Address, phone, fax, e-mail and web page)	Ata Mah. Sanayi Cad. No:70 Pk.12 Gemlik-Bursa Tel: +90-224-519 03 00 Fax: +90-224-519 0304 mks.gemlik@mksmarmara.com www.mksmarmara.com		
3	Name of the facility	MKS Marmara Pipeline and Buoy System		
4	Province where the facility is located	BURSA		
5	Contact information of the facility (address, phone, fax, e-mail and web page)	PK.12 Gemlik-Bursa Tel: +90-224-519 0300 Fax: +90-224-519 0304 mks.gemlik@mksmarmara.com www.mksmarmara.com		
6	Geographical region where the facility is located	Marmara Region		
7	Port Authority to which the facility is registered and contact details	Gemlik Region Port Authority Tel: +90-224-513 1133 Fax: +90-224-513 9882		
8	Municipality to which the facility is registered and contact details	Gemlik Municipality Tel: +90-224-513 4521 Fax: +90-224-511 1780		
9	Name of the Free Zone or Organized IndustrialZone where the facility is located	-----		
10	Validity date of the Coastal Facility Operating Permit / Temporary Operating Permit	03.05.2023		
11	Operational status of the facility	Self-load and additional 3rd party(...)	Self-load (x)	3rd party (...)
12	Name and surname of the facility manager, contactdetails (phone, fax, e-mail)	Yüksel AKYÜZ yuksel.akyuz@mksmarmara.com Tel: +90-224 519 03 00 Fax: +90-224-519 0304		
13	Name and surname, contact details (phone, fax, e-mail) of the dangerous goods operations officer of the facility	Ismail Recep Altiniğne Tel. +90 224 519 03 00 Fax: +90-224-519 0304 recep.altinigne@mksmarmara.com		
14	Name and surname of the facility's Dangerous Goods Safety Advisor, contact details (phone, fax, e-mail)	Deniz A. Cura Tel.: 0 850 305 0 486 deniz.curा@gvndanismanlik.com		
15	Nautical Coordinates of the Facility	Buoy No. 1 40° 24' 71" N, 029° 04' 44,2" E	Buoy No. 2 40° 24' 71" N, 029° 04' 44" E	
16	Types of dangerous goods handled at the facility (MARPOL Annex I, IMDG Code, IBC Code, IGC Code, IMSBC Code, Grain Code, TDC Code and asphalt/bitumen and scrap loads)	IBC CODE		

**DANGEROUS GOODS HANDLING GUIDE**

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	9 /32

17	Dangerous goods handled in the facility (goods other than IMDG Code in Article 16 written separately. Additional load requests will be submitted to the port authority with the Annex-1 form. If appropriate, it will be added to TYER)	UN 1230 METHANOL			
18	Classes for goods handled, subject to IMDG Code	---			
19	Groups in the table of characteristics for goods handled, subject to IMSBC Code	---			
20	Types of ships that can board at the facility	Chemical Tanker			
21	Distance from the main road (kilometer)	7 km			
22	Distance of the facility to railway (kilometers) or railway connection (Yes/No)	(None)			
23	Name of the nearest airport and distance to the facility (kilometer)	Bursa Yenisehir Airport 83 km			
24	Goods handling capacity of the facility (Ton/Year; TEU/Year; Vehicle/Year)	14 000 MT.			
25	Whether scrap handling is done in the facility	No			
26	Is there a Border Crossing? (Yes/No)	No			
27	Is there a bonded area? (Yes/No)	Yes			
28	Goods handling equipment and capacities	150-200 mton/hour by pipeline			
29	Storage tank capacity (m ³)	90 000 MT/YEAR			
30	Open storage area (m ²)	---			
31	Semi-enclosed storage area (m ²)	---			
32	Indoor storage area (m ²)	---			
33	Designated fumigation and/or degassing area (m ²)	---			
34	Name, title, contact details of the pilotage and towage services provider	Pilotage Service: Gemlik Kılavuzluk ve Römorkör Hizmetleri A.Ş. pilotaj@gemport.com.tr Towage Service: Gemport Gemlik Liman ve Depolama İşletmeleri A.Ş (Gemport A.Ş) Tel: +90 224 524 8831 / info@gemport.com.tr			
35	Is a safety plan in place? (Yes/No)	YES			
36	Waste reception facility capacity (This section will be arranged separately according to the wastes received by the facility)	Waste Type EXEM PT	Capacity (m3) ---		
37	Characteristics of dock/jetty etc. areas				
Dock / Jetty No.	Length (meters)	Width (meters)	Maximum water depth (meters)	Minimum waterdepth (meters)	Maximum vessel tonnage and length (DWT-GT/Meters)(DWT or GRT meters)
--	--	--	--	--	--
Name of the pipeline (if available on the facility)		Quantity (pcs)		Length (meters)	Diameter (inch)
MKS Marmara Pipeline		1		715+135= 850 m	6



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	10 /32

1.2. Dangerous goods handled and/or temporarily stored at the coastal facility

In MKS Marmara Entegre Kimya Sanayii A.Ş., the UN 1230 METHANOL product required for the production needs of the factory located adjacent to the MKS Marmara Pipeline and Buoy System port is handled by pipeline.

After being taken to the storage tanks in the facility via pipelines, the product is transferred to the factory production units as needed via the closed system pipeline.

Unloading and storage operations are carried out according to "**16.24 Methanol Ship Discharge Instructions**".

2. RESPONSIBILITIES

The general responsibilities of all parties involved in dangerous goods transportation activities are set out below:

- a) They are obliged to take all necessary measures to carry out transportation in a safe, secure and environmentally harmless manner, to prevent accidents and to minimize the damage as much as possible when an accident occurs.
- b) In emergency situations such as fires, leaks and spills occurring during the transportation of dangerous goods, they will follow the EmS Guide which includes Emergency Response Methods and Emergency Schedules for Ships Carrying Dangerous Goods.
- c) They will follow the Medical First Aid Guide (MFAG) in the annex of the IMDG Code for the provision of necessary medical first aid to people affected by damage of dangerous goods and health problems arising because of accidents involving these goods.

2.1. Responsibilities of the Handler of the Goods

- a. Prepares or has someone prepare the mandatory documents, information and papers related to dangerous goods and ensures that these documents are included with the goods during the transportation activity.
- b. Ensures that dangerous goods are classified, packaged, marked, labeled and placarded in accordance with their type.
- c. Ensure that dangerous goods are loaded, stacked and securely fastened to approved packing and cargo transport units in accordance with the rules in a safe manner.

2.2. Responsibilities of the Carrier

- a. Requests the mandatory documents, information and papers related to dangerous goods from the relevant operator and ensures that they are included with the goods during the transportation activity.
- b. Verifies the compliance of dangerous goods classified, packaged, marked, labeled and placarded by the relevant operator in accordance with the legislation.
- c. Ensures that dangerous goods are packaged in accordance with the rules using approved packing and cargo transport units, and that they are safely loaded and connected to the cargo transport unit.



Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	11 /32

2.3. Responsibilities of the Coastal Facility Operator

All precautions are taken in full by the port operator to ensure that process safety, occupational and worker healthcare not harmed, and potential accidents are prevented in all operations that will be carried out at every stage of the operation at the MKS Marmara Pipeline and Buoy System facility, such as unloading the dangerous goods from the ships, storing them in the port area and at the facility.

- a. **Does not let ships carrying dangerous goods dock at the facility without the permission of the port authority.**
Unloading Methanol from ships is done by MKS Marmara Pipeline.
- b. **Provides written information to the ship that will dock at the facility within the scope of facility rules, goods handling rules and relevant legislation.**
Unloading Methanol from ships is done by MKS Marmara Pipeline. "16.24-1A Ship Information Letter" is sent in Turkish or English according to the flag of the ships to be unloaded.
- c. **Does not handle dangerous goods for which they have not received permission to handle from the Administration, planning in this context and not inconveniencing the ships to be docked.**
Permission for Dangerous Liquid Bulk Cargoes is available in accordance with BKN. 761628.TMUB.124. Operations are conducted in accordance with the "16.24 Methanol Ship Discharge Instructions."
- c. **Requests the mandatory documents, information and papers related to dangerous goods from the relevant authority and ensure that they are included with the cargo. If the relevant documents, information and papers cannot be provided by the cargo operator, the coastal facility operator is not obliged to accept or handle the dangerous goods.**
Mandatory documents, information and papers related to dangerous goods (UN 1230) will be submitted by the supplier company.
- d. **Shares all data that may be required based on the nature of the goods with the ship owner and performs the loading or unloading operation based on the agreement to be reached. Does not make changes in the operation without the knowledge of the ship's officer.**
Unloading operations are carried out according to "16.24 Methanol Ship Discharge Instructions"
- e. **Determines the safe working capacity of the facility and the working limits by considering the weather forecasts, taking the necessary measures to ensure the safe mooring and handling of the ship at the berth.**
Unloading operations are carried out according to "16.24 Methanol Ship Discharge Instructions". The Ship Officer is in constant contact with the shore to ensure that the unloading continues safely. If an excessive storm, wave or current is present in the sea, he/she continuously monitors the position of the hose and the ship. If any tension or strain is detected in the hose, the ship and the shore will be warned immediately. If necessary, the unloading will be stopped and ensured that the hose is released with the emergency release coupling, and the ship is separated from the buoys with the emergency release hook in coordination with the captain. The buoys are under surveillance 24/7 with CCTV and are periodically monitored by security rounds.
- f. **Controls the transport documents containing information that the dangerous cargoes arriving at the facility are properly classified, packaged, marked, labeled, placarded and safely loaded into the cargo transport unit.**
Mandatory documents, information and papers related to dangerous goods (UN 1230 Methanol) are submitted by the supplier company.
- g. **Ensures that the staff involved in the handling of dangerous goods and its planning are certified by receiving the necessary training and do not assign non-certified staff to these operations.**
The staff involved in the operation receive Occupational Health and Safety Trainings in accordance with the Occupational Health and Safety Training and Exercise Program, OPRC1 and OPRC2 training courses and IMDG Code trainings within the scope of intervention to pollution caused by oil and other harmful substances.
- g. **Ensure that the dangerous goods handling equipment in the facility is operational and that the relevant staff are trained and certified for the use of this equipment.**
Periodic maintenance is carried out through the Maintenance and Repair Management System (BOYS) program. Maintenance staff are trained within the scope of ATEX 153 and ATEX 114 directives.
- h. **Ensures that the staff use personal protective equipment suitable for the physical and chemical properties of the dangerous goods by taking occupational safety measures at the coastal facility.**
"PPE" is delivered with "13. FR.13 Personal Protective Equipment Delivery Form".
- i. **Carries out activities related to dangerous goods at docks, piers and warehouses established accordingly.**
Unloading activities at MKS Marmara Entegre Kimya Sanayii A.Ş. coastal facility is carried out via the Methanol Discharge Line.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	12 /32

- i. **Equips the docks and piers reserved for ships that will load or unload dangerous liquid bulk goods with installations and equipment suitable for this purpose.**
The unloading process is carried out via the Methanol Discharge Line.
- j. **Keeps an up-to-date list of all dangerous goods on the ships docked at the facility and in the closed and open areas of the facility and provides this information to the relevant people upon request.**
Recorded in line with the "16.21. Instructions for Updating and Keeping Records of Dangerous and Hazardous Substances in the Port Facility".
- k. **Notifies the port authority of the instant risk posed by the dangerous goods handled or temporarily stored in the facility and the measures taken against it.**
"Carried out according to "13.PL.01 Coastal Facility Emergency Plan".
- l. **Notifies the port authority of accidents related to dangerous goods, including accidents at the entrance to closed areas.**
No closed area is found at MKS Marmara Entegre Kimya Sanayii A.Ş. coastal facility.
- m. **Provides the necessary support and cooperation in the controls and inspections carried out by the administration and the port authority.**
During inspections conducted by the Administration and Regional Port Authorities, all documents required to be prepared in accordance with regulations and directives shall be made available and supported.
- n. **Ensure that Class 1 (except Class 1 Compatibility Group 1.4 S), Class 6.2 and Class 7 dangerous goods, which are not allowed to be temporarily stored, are transferred outside the coastal facility as soon as possible without delay, and apply to the Administration for permission in cases where delay is essential.**
Only UN 1230 Methanol discharge is carried out at the MKS Marmara Integrated Chemical Industry Inc. coastal facility.
- o. **Temporarily stores the cargo transport units having dangerous goods in line with the sorting and stowage rules and take fire, environmental and other safety measures suitable for the dangerous goods class. Keeps fire extinguishing systems and first aid units ready for use at all times in areas where dangerous goods are handled and periodically perform the necessary inspections.**
Carried under the responsibility of the Coast Guard with the "13.PL.01 Coastal Facility Emergency Plan".
"13. FR.14 Fire Extinguishers, Cabinets, Hydrants and First Aid Equipment Control Form" is regularly checked every month.
- ö. **Obtains permission from the port authority before hot working to be done in areas where dangerous goods are handled and temporarily stored.**
"13.36. Coastal Facilities Hot Working Permit and Working Instructions" and "13. FR.08 Coastal Facilities Hot Working Permit Form" are used.
- p. **Prepares an emergency plan for the unloading of ships from coastal facilities in emergencies, submits it to the port authority and informs the relevant persons about the plan approved by the port authority.**
"Unloading is carried out in line with the "13.PL.01 Coastal Facility Emergency Plan".
- r. **Ensures that the internal loading of cargo transportation units is carried out in accordance with the loading safety rules in the facility.**
After being taken to the storage tanks in the facility via pipelines, the UN 1230 substance is transferred to the factory production units as needed via a closed system pipeline.

2.4. Responsibilities of the Ship Officer

- a. Ensure that the goods to be carried by the ship are certified for transportation and that the cargo holds, tanks and handling equipment are suitable for transportation.
- b. Requests all mandatory documents, information and papers related to dangerous goods from the relevant authority and ensure that they are included with the goods during transportation.
- c. Ensures that the documents, information and papers required to be on board regarding dangerous goods within the legislation and international conventions are appropriate and up to date.
- c. Controls the transport documents containing information that the cargo transport units loaded on board are properly marked, placarded and loaded safely.
- d. Inform the relevant ship staff about the risks of dangerous goods, safety procedures, safety and emergency measures, intervention methods and similar issues.
- e. Keeps updated lists of all dangerous goods on board and declares them to the relevant people on request.
- f. Ensures that the loading program, if any, on board is approved, documented and operational.
- g. Notifies the port authority and the coastal facility of the instant risk posed by the dangerous goods on board the ship docking at the coastal facility and the measures taken accordingly.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	13 /32

- g. Does not allow dangerous goods to be transported in case of leakage of dangerous goods or in the event of such a possibility.
- h. Notifies the port authority of dangerous goods accidents occurring on board his ship during navigation or at the coastal facility.
- i. Provides the necessary support and cooperation in the controls and inspections carried out by the administration and port authority.
- i. Does not allow the transportation of dangerous goods that are not included in the ship certificates issued by the relevant institutions and organizations.
- j. Ensures that the ship crew involved in the handling of dangerous goods use personal protective equipment suitable for the physical and chemical properties of the goods during handling.
- k. Provides the requirements for safe loading of the goods on the ships.

3. RULES AND PRECAUTIONS TO BE ENFORCED BY THE SHORE FACILITY

The responsibilities in the third part of the Regulation on the Maritime Transportation of Dangerous Goods and Loading Safety are explained in the 2.3 Responsibilities of the Shore Facility Operator section of this guide.

3.1. Unloading Safety

In unloading operations carried out in accordance with "16.24 Methanol Ship Discharge Instructions", safety is ensured by continuous measurement of the unloading and its quantity, measuring shore tanks, levels and temperatures, and making necessary calculations.

At the beginning of and during the unloading, it is frequently checked that the ship's pump pressure does not rise above 6 atms or falls below normal. To prevent possible loss of product and environmental pollution, the sea surface is constantly monitored and if any bleaching or foaming occurs, the ship and the shore are warned, and the unloading is stopped.

To ensure the evacuation proceeds safely, constant contact is maintained with the coast. In the event of excessive storms, waves, or currents at sea, the position of the hose and the ship is continuously monitored.

3.2. Goods covered by the IBC Code

UN 1230 Methanol is unloaded at MKS Marmara Entegre Kimya Sanayii A.Ş. within the IBC Code. UN 1230 Methanol handled at MKS Marmara Entegre Kimya Sanayii A.Ş. is unloaded from the ships to the tanks in the facility via pipeline.

There is no loading from land tankers to ships.

4. CLASS, TRANSPORTATION, LOADING/UNLOADING, HANDLING, SORTING, STACKING AND STORAGE of DANGEROUS LOADS

Only UN 1230 Methanol (Class 3 Flammable Liquid) is unloaded at MKS Marmara Entegre Kimya Sanayii A.Ş. coastal facility. Information on other classes is added for reference.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	14 /32

UN Number	UN 1230
Available Shipment Name	METHANOL
Hazard Class/Label	Class 3 Flammable Liquids (3 + 6.1)
	 
Packing Group	II
Classification Code	FT1
EmS	F-E; S-D
Appearance	Liquid
Color	Clear, colorless
Odor	Alcohol
Odor threshold	4.2 - 5960 ppm
pH	No application required
Melting Point / Freezing Point (°C) 760 mmHg	-97,8
Initial Boiling Point and Boilingrange (°C) 760 mmHg	64,7
Flash Point, °C	11
Evaporation rate/ratio	4.1% (butylacetate=1)
Flammability (solid, gas)	Flammable liquids and vapors
Upper / Lower Flammability or explosive Limits, % by volume	5,5 - 36,5
Vapor Pressure, kPa @ 20°C	12,8
Vapor Density @ 20°C	1,1
Density, kg/m³	792
Resolution	Miscible with water in any proportion
Coefficient of Dispersion: n-octanol/water (log Pow)	LogPow=-0.77
Flammability Temperature	464
Decomposition Temperature	No Information
Fluidity, cP @20 °C	0,8
Explosive Properties, %	Vapors may form explosive mixtures with air
Oxidizing Properties	Non-oxidizing
Incompatible Substances	Lead, aluminum, zinc, polyethylene, PVC
Situations to Avoid	(Under conditions to be avoided, such as temperature, pressure, light, shock and similar conditions that may cause dangerous reactions):
Substances to avoid	(Conditions related to water, air, acids, bases, oxidizers or any other special substances that may cause dangerous reactions): Oxidizing agents, strong acids, strong bases w/gaskets and o-rings made of methanol, Buna-N and Nitrile
Suitable Extinguishing Media	Synthetic fire extinguishing foam AR-FFF (3% solution), dry powder, CO2, water spray, sand
Unsuitable Extinguishing Media	Do not use a water jet. Water can be used to dilute, cool or disperse methanol but will have no effect on the fire as it will not cool at temperatures below the flash point. Water-methanol mixtures containing more than 20% methanol are flammable.

4.1. Classes of dangerous goods

Substances (including mixtures and solutions) and objects related to the provisions of the IMDG Code fall into one of the classes from 1 to 9 according to the hazard they present or the most predominant hazard. Some of these classes are subdivided into sections. These classes or divisions are listed



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	15 /32

below:

Class 1: Explosive substances and articles

- Hazard Section 1.1: Substances and objects at risk of mass explosion
- Hazard Section 1.2: Substances and objects that do not present a mass explosion hazard but present a scattering/spitting hazard.
- Hazard Section 1.3: Substances and articles with a fire hazard or a slight explosion hazard / slight ejection hazard or both, but not a mass explosion hazard.
- Hazard Section 1.4: Substances and objects with no apparent hazard
- Hazard Section 1.5: Substances with a mass explosion hazard but very low sensitivity
- Hazard Section 1.6: Extremely low-sensitivity objects with no risk of mass explosion.

Class 2: Gases

- Class 2.1: Flammable gases
- Class 2.2: Non-flammable, non-toxic gases
- Class 2.3: Toxic gases

Class 3: Flammable Liquids

- Class 4.1: Flammable solids, self-reactive materials, desensitized solid explosives and polymerizing agents
- Class 4.2: Substances prone to spontaneous combustion
- Class 4.3: Substances that release flammable gases in contact with water
- Class 5.1: Oxidizing Substances
- Class 5.2: Organic Peroxides
- Class 6.1: Toxic Substances
- Class 6.2: Contagious Substances
- Class 7: Radioactive Substances
- Class 8: Corrosive Substances
- Class 9: Miscellaneous Hazardous Substances and Objects

4.2. Packages and packing of dangerous goods

Packages of dangerous goods must be of sufficient quality to minimize the damage to the marine environment, considering their specific contents.

Packing refers to materials or other components of one or more containers necessary for the storage and other safety functions of these containers.

Large packing refers to that which is made up of an outer packing containing objects or inner packing and has the following characteristics:

1. They are designed for mechanical handling and
2. They have a net mass of over 400 kg or a capacity of more than 450 liters, but a volume of less than 3 m³

Bulk containers are containment systems (including liner or lining) designed for the transportation of solids in direct contact with the containment system. Packing, intermediate bulk containers (IBCs), large packages and portable tanks are not included. Bulk containers:

1. are of durable construction and therefore suitable for reuse.
2. are specially designed to facilitate the transportation of goods by one or more means of transport without intermediate loading.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	16 /32

3. are equipped with devices suitable for easy handling.
4. have a capacity of at least 1 cubic meter.

Intermediate bulk containers (IBC) refer to a rigid or flexible portable package having the following characteristics, except as specified in Section 6.1:

1. Capacity:
 - Up to 3.0 m³ (3000 liters) for solids and liquids belonging to packing groups II and III.
 - Maximum 1.5 m³ for solids belonging to packing group I when packed in flexible, rigid plastic, composite,cardboard and wood IBCs.
 - Maximum 3.0 m³ for solids belonging to packing group I when packed in metal IBCs.
 - Not more than 3.0 m³ for radioactive materials belonging to Class 7;
2. They are designed for mechanical handling and
3. Resistant to stresses generated during handling and transportation, as determined by tests

Package refers to the finished product of the packing process, including its elements prepared for packing or shipment.

Drum refers to a cylindrical package made of metal, cardboard, plastic, plywood or other suitable material, with flat or curved ends. This definition also includes other forms, such as round, pointed packages or bucket-shaped packages. This definition does not include wooden barrels or canisters.

Shipping container refers to an object of transport equipment which is of fixed construction and therefore sufficiently robust to be suitable for continuous use, specifically designed to facilitate the transport of substances by one or more modes of transport, without intermediate refilling, designed to be secured and/or handled as is, equipped with fittings for this purpose and approved in accordance with the International Convention on Safe Containers (CSC) 1972, as amended. In addition: Small shipping container refers to a container with an internal volume of not more than 3 m³. Large shipping containers refer to a container with an internal volume of more than 3 m³.

Examples of dangerous goods packing:



4.3. Placards, license plates, brands and labels for dangerous goods

Class 1 - Explosive substances or articles



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	17 /32

1	Divisions 1.1, 1.2, 1.3	Exploding bomb: black	Orange	1 (black)	
1.4	Division 1.4	1.4: black Numerals shall be about 30 mm in height and be about 5 mm thick (for a label measuring 100 mm x 100 mm)	Orange	1 (black)	
1.5	Division 1.5	1.5: black Numerals shall be about 30 mm in height and be about 5 mm thick (for a label measuring 100 mm x 100 mm)	Orange	1 (black)	
1.6	Division 1.6	1.6: black Numerals shall be about 30 mm in height and be about 5 mm thick (for a label measuring 100 mm x 100 mm)	Orange	1 (black)	

Class 2 – Gases

2.1	Flammable gases	Flame: black or white (except as provided for in 5.2.2.2.1.6 d))	Red	2 (black or white) (except as provided for in 5.2.2.2.1.6 d))	
2.2	Non-flammable, non-toxic gases	Gas cylinder: black or white	Green	2 (black or white)	
2.3	Toxic gases	Skull and crossbones: black	White	2 (black)	

Class 3 Flammable Liquids

3	-	Flame: black or white	Red	3 (black or white)	
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DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	18 /32

Class 4 Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives

4.1	-	Flame: black	White with 7 vertical red stripes	4 (black)	
-----	---	--------------	-----------------------------------	-----------	--

Class 4.2 hazard: Substances liable to spontaneous combustion

4.2	-	Flame: black	Upper half white, lower half red	4 (black)	
-----	---	--------------	----------------------------------	-----------	--

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

4.3	-	Flame: black or white	Blue	4 (black or white)		
-----	---	-----------------------	------	--------------------	--	--

Class 5.1 : Oxidizing substances

5.1	-	Flame over circle: black	Yellow	5.1 (black)	
-----	---	--------------------------	--------	-------------	--

Class 5.2: Organic peroxides

5.2	-	Flame: black or white	Upper half red, lower half yellow	5.2 (black)		
-----	---	-----------------------	-----------------------------------	-------------	--	--

Class 6.1: Toxic Substances

6.1	-	Skull and crossbones: black	White	6 (black)	
-----	---	-----------------------------	-------	-----------	--

Class 6.2 Infectious Substances



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	19 /32

6.2	-	Three crescents superimposed on a circle: black	White	6 (black)	
-----	---	---	-------	--------------	--

Class 7 Radioactive material

7A	Category I – WHITE	Trefoil: black	White	7 (black)	
7B	Category II – YELLOW	Trefoil: black	Upper half yellow with white border, lower half white	7 (black)	
7C	Category III – YELLOW	Trefoil: black	Upper half yellow with white border, lower half white	7 (black)	
7E	Fissile material	-	White	7 (black)	

Class 8 Corrosive Substances

8	-	Liquids, spilling from two glass vessels and attacking a hand and a metal: black	Upper half white, lower half black with white border	8 (white)	
---	---	--	--	--------------	--

Class 9 Miscellaneous dangerous substances and articles



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	20 /32

9	-	7 vertical stripes in upper half: black	White	9 underlined (black)	
9A	-	7 vertical stripes in upper half: black; battery group, one broken and emitting flame in lower half: black	White	9 underlined (black)	

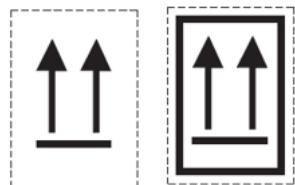
4.4. Marks and packing groups of dangerous goods

Marine Pollutant Mark / Environmentally hazardous substance mark



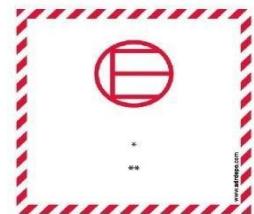
Packages containing marine pollutants will be securely labeled with a marine pollutant mark. The mark will be in the form of a square (diamond-shaped) set at an angle of 45°. The symbol (fish and tree) will be black on white or black on a suitable contrasting background. The minimum dimensions will be 100 mm x 100 mm and the minimum width of the diamond-shaped line will be 2 mm. Where packing dimensions require it, the size/line thickness may be reduced so that the mark is clearly visible. Where dimensions are not specified, all specifications will be in approximate proportion to what is shown.

Orientation arrows



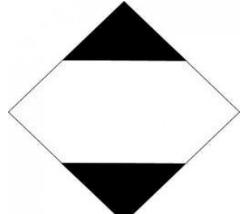
Combined Packages with Inner Packages Containing Liquid Dangerous Goods, Single Packages with Air Vents and Cryogenic Containers for the Transport of Refrigerated Liquefied Gases are marked with directional arrows

Excepted Quantity (EQ)



Packages containing excepted quantities of dangerous goods prepared in accordance with this chapter shall be durably and legibly marked with the mark shown. The primary hazard class of each of the dangerous goods contained in the package shall be shown in the mark. Where the name of the consignor or consignee is not shown elsewhere on the package, this information shall be included within the mark.

Limited Quantities (LQ)



The label applied to the packages containing Dangerous Goods Packed in Limited Quantities in accordance with IMDG CODE/ADR 3.4 and in Limited Quantity transports involving dangerous goods exceeding 8 tons in transport units over 12 tons; a plate with the relevant mark is attached to the front and rear of the vehicles, on all four sides of the container.

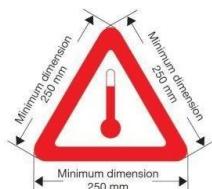
Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	21 /32

Lithium Battery Mark



Packages containing lithium batteries or batteries prepared in accordance with special provision 188 are marked with the Lithium Battery Mark. The mark indicates the letters "UN" followed by the UN number, e.g: 'UN 3090' for lithium metal batteries or accumulators or 'UN 3480' for lithium-ion batteries or accumulators. If the lithium batteries or accumulators are contained in or packaged with the equipment, the letters 'UN' are followed by the UN number, for example: 'UN 3091' or 'UN 3481', as appropriate. If the packing contains lithium batteries or accumulators assigned to different UN numbers, all applicable UN numbers will be indicated on one or more marks.

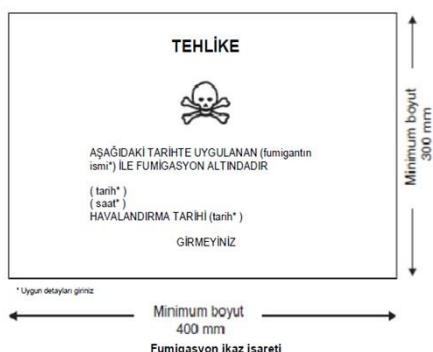
Elevated temperature substance mark



Cargo transport units containing a substance transported or offered for transport in liquid form at a temperature of 100 °C or above or in solid form at a temperature of 240 °C or above must bear the following mark on each side and at each end.

Fumigation Warning Mark

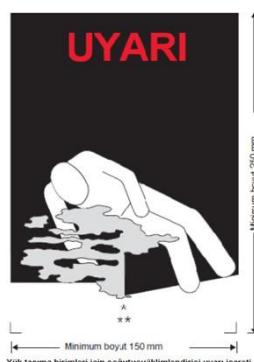
Fumigasyon uyan işaretleri aşağıdaki şekildeki gibi gösterilecektir.



A fumigated cargo transport unit must be labeled with a warning mark as described in 5.5.2.3.2 and this must be attached to each access point in a position easily visible to persons opening or entering the cargo transport unit. This mark will remain on the cargo transport unit until the following provisions are met:

- The fumigated cargo transport unit must be ventilated until harmful concentrations of the fumigant gas have been removed and
- The fumigated substances or materials must be discharged.

Asphyxiation warning mark for vehicles and containers



Cargo transport units containing dangerous goods for cooling or air conditioning purposes must have a warning mark placed at each access point, which can be easily seen by any person entering or opening the cargo transport unit. This sign will remain on the vehicle or container until the following provisions are met:

- The vehicle or container must be fully ventilated to remove harmful amounts of accumulated refrigerant or air conditioning
- Refrigerated or ventilated goods must be unloaded

As long as the vehicle or container is marked, the necessary precautions must be taken before entering.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	22 /32

PACKING GROUPS

For packing purposes, substances other than Classes 1, 2, 5.2, 6.2 and 7 and self-reactive substances of Class 4.1 are divided into three packing groups according to the degree of hazard they pose:

Packing Group I: Highly hazardous substances, **Packing Group II:** Moderately hazardous substances, **Packing Group III:** Low hazardous substances.

The packing group to which the substances are assigned is given in the Dangerous Goods List in IMDG Code Section

3.2. Objects are not assigned to the packing group.

4.5. Separating tables on board and at the shore facility according to the classes of dangerous goods

Only UN 1230 Methanol is unloaded at MKS Marmara Pipeline and Buoy System facility. The separating table in IMDG CODE 7.2.4 has been added to this guide for information purposes.

Separating is the process of separating two or more substances or objects that are considered to be mutually incompatible in case of leakage or spillage, or in case of any other accident where the combination or aggregate may cause extreme hazards.

To determine the separation requirements between two or more hazardous substances, the separation table (7.2.4) and the provisions of the IMDG CODE with reference to the separation provisions, including column 16b of the List of Dangerous Goods, should be consulted. In case of conflicting provisions, the provisions of column 16b of the List of Dangerous Goods always take precedence. The general provisions for segregation between the various classes of dangerous goods are shown in the " separation table" given below. The List of Dangerous Goods should always be consulted for specific provisions for segregation as they take precedence over the general provisions in case of conflicting provisions as the properties of the substances, materials or object in each class may vary greatly. The separation will also consider a single secondary hazard label.

CLASS	1.1	1.2	1.3	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	
Explosives	11,12, 1.5	*	*	*	4	2	2	4	4	4	4	4	4	4	2	4	2	4	X
Explosives	13,16	*	*	*	4	2	2	4	3	3	4	4	4	4	2	4	2	2	X
Explosives	1.4	*	*	*	2	1	1	2	2	2	2	2	2	2	X	4	2	2	X
Flammable gases	2.1	4	4	4	X	X	X	2	1	2	2	2	2	X	4	2	1	X	
Non-toxic and non-flammable gases	2.2	2	2	2	X	X	X	1	X	1	X	X	1	X	2	1	X	X	
Toxic gases	2.3	2	2	2	X	X	X	2	X	2	X	X	2	X	2	1	X	X	
Flammable Liquids	3	4	4	4	2	1	2	X	2	2	2	2	2	X	3	2	X	X	
Flammable solids, (including self-reacting substances and solid explosives with reduced sensitivity to explosive properties)	4.1	4	3	3	1	X	X	X	1	X	1	2	X	3	2	1	X		
Substances that release flammable gases in contact with water	4.2	4	3	3	2	1	2	2	1	X	1	2	2	1	3	2	1	X	
Substances that release flammable gases in contact with water	4.3	4	4	4	2	X	X	2	X	1	X	2	2	X	2	2	1	X	
Oxidizing substances (agents)	5.1	4	4	4	2	X	X	2	1	2	2	X	2	1	3	1	2	X	
Organic Peroxides	5.2	4	4	4	2	1	2	2	2	2	2	2	X	1	3	2	2	X	
Toxic substances	6.1	2	2	2	X	X	X	X	1	X	1	1	1	X	1	X	X	X	
Poisonous substances (agents)	6.2	4	4	4	4	2	2	3	3	3	2	3	3	1	X	3	3	X	
Radioactive material	7	2	2	2	2	1	1	2	2	2	2	1	2	X	3	X	2	X	
Corrosive substances	8	4	2	2	1	X	X	X	1	1	1	2	2	X	3	2	X	X	
Miscellaneous dangerous goods and objects	9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

The numbers and symbols in the table mean the following:

- 1 : "Must be kept away"
- 2 : "Must be separated"
- 3 : "Must be kept separate by means of a compartment or partition"
- 4 : "It must be separated longitudinally by means of a complete compartment or partition passing through it"

X: IMDG Code 3.2 Dangerous Goods List should be consulted to verify whether there are special separation provisions.

- : IMDG CODE 7.2.7.1 should be consulted for separation provisions between substances or products in Class 1.

For closed containers/portable tanks/enclosed road vehicles:

X = no separation required

1 = away - no separation required

2 = separated - in open areas, longitudinally and laterally, a minimum separation of 3 m; in enclosed areas or warehouses a minimum separation of 6 m is required unless separated longitudinally and laterally by an approved fire wall.



Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	23 /32

4.6. Separation distances and terms for dangerous goods in warehouses

At MKS Marmara Entegre Kimya Sanayii A.Ş. port, UN 1230 Methanol is handled via pipeline.

5. MANUAL ON DANGEROUS GOODS HANDLED IN SHORE FACILITIES

In MKS Marmara Entegre Kimya Sanayii A.Ş. port, operations such as filling, packaging, sending, transporting, receiving, using or storing dangerous goods are not carried out, only UN 1230 Methanol is unloaded from the ship to the warehouses by pipeline.

There is a "13.35 Dangerous Goods Manual" prepared within the Port operations to be given to port users.

6. OPERATIONAL ISSUES

UN 1230 Methanol, which is required for the production needs of the factory located adjacent to the MKS Marmara Pipeline and Buoy System port facility, is handled via pipeline. The product, which is taken to the storage tanks in the facility via pipelines, is delivered to the factory production units as needed via a closed system pipeline. For this purpose, MKS Marmara Pipeline and Buoy System port has an Unloading Procedure and "16.24 Methanol Ship Discharge Instructions" for each stage of the process.

6.1. Procedures for the safe berthing, mooring, loading/unloading, sheltering or anchoring of ships carrying dangerous goods day and night

Unloading operations are carried out according to "16.24 Methanol Ship Discharge Instructions". The procedures for unloading are as follows:

1. The information contained in the Nomination letter, which is delivered and confirmed by the Foreign Trade Department regarding the scheduled Methanol Ship, is checked and its conformity is evaluated and if the result is positive, it is signed and confirmed.
2. When the methanol ship arrives, the relevant sections of the attached "Methanol Ship General Information Form" numbered (16.24-6) are filled in first.
3. The Customs Directorate letter is sent to the Customs Directorate for approval. It is ensured that the Customs Directorate keeps a record under the document.
4. The officers who will work on the ship and on the shore are determined and the "Ship Officers Form" numbered (16.24-7) is filled in and announced.
5. According to the flag of the ship, the "Ship Information Letter" numbered 16.24-1 is prepared in Turkish or English and signed by the ship captain,
6. The unloading and its quantity are continuously controlled by the Formaldehyde Foreman and/or Responsible.
7. In case the amount of unloaded goods is less than the amount stated in the bill of lading, he/she takes a copy of the relevant "Letter of Protest" prepared by the Watchman and signed by the ship captain.
8. After the evacuation is finished, the "Time Schedule" numbered 16.24-3 is filled out and signed by the ship's captain. All correspondence and documents related to the evacuation are delivered to the Factory Manager as soon as possible.
9. After the ship's customs officers complete the ship inspection and return to shore, they board the ship together with the discharge supervisor.
10. To ensure the evacuation proceeds safely, constant contact is maintained with the shore. If necessary, the evacuation is halted, and separation from the buoys is coordinated with the captain.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	24 /32

11. When the sea calms down, the hose is retrieved and reconnected to the ship, and the evacuation process continues. All these procedures are carried out in agreement with the shore officer and the evacuation supervisor.
12. The times and reasons for stoppages due to weather conditions or the ship are recorded and reported to the shore officer.
13. The form numbered 16.24-8, titled "Notes to be Taken by the Shore Watch During the Discharge of the Methanol Ship," in which the discharge supervisor records all activities related to the ship, is obtained and the necessary records are made during the watch. The form is given to the discharge supervisor as soon as the discharge is completed.
14. During the discharge, the amount of methanol discharged from the tanks on the shore where the discharge takes place is recorded hourly on the "Methanol Tank Discharge Tracking Form" numbered 16.24-9.
15. The work performed is recorded in the "Methanol Drain Line Test Form" numbered 16.24-10. The work done is recorded in the "Methanol Unloading Line Test Form" numbered 16.24-10.

6.2. Procedures for additional measures to be taken according to seasonal conditions for the loading and unloading of dangerous goods

Measures to be taken for UN 1230 Methanol are included in 16.24 Methanol Ship Discharge Instructions. Measures taken under the responsibility of the Ship Officer are implemented.

Ship Officer:

- Records the times and reasons for the stops caused by weather conditions or the ship and reports them to the shore officer.
- Keeps in constant contact with the shore for safe evacuation. If there is an excessive storm, wave or current at sea, he/she continuously monitors the position of the hose and the ship. If any tension or strain is detected in the hose, the ship and the shore are immediately warned. If necessary, the unloading is stopped and it is ensured that the hose is released by means of the emergency release coupling and the ship is separated from the buoys with the release hook in coordination with the captain.

6.3. Procedures for keeping flammable, combustible and explosive goods away from spark-generating operations and not utilizing spark-generating tools, equipment or instruments in dangerous goods handling, stowage and storage areas

Explosion Protection Document (PATKOR) and conformity report of the equipment used are available.

7. DOCUMENTATION CONTROL AND RECORDS

7.1. Procedures on all mandatory documents, information and papers related to dangerous goods, their provision and control by those concerned

Documents related to Dangerous Goods are recorded by the sender, carrier, recipient, agency or suppliers and it is the responsibility of the sender, carrier, recipient, agency or supplier companies, not the responsibility of the port, how to request all kinds of documentation, control and registration procedures related to the dangerous goods transferred.

The following documents are required for UN 1230 Methanol unloading:



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	25 /32

- Ship Information Letter, Form no: 16.24-1 a and b
- Methanol Analysis Report, Form No.: 16.24-2
- Statement of Facts, Form No: 16.24-3
- Methanol Ship General Information Sheet, Form no: 16.24-6
- List of Ship's Officers, Form No.: 16.24- 7
- Notes to be kept by the Coast Guard during the Unloading of a Methanol Ship, Form No.: 16.24-8
- Methanol Tanks Discharge Monitoring Form, Form no: 16.24-9
- Methanol Discharge Line Test Form, Form No: 16.24-10

7.2. Procedures for keeping an up-to-date list of all dangerous goods on the coastal facility site and other relevant information

A record of dangerous goods entering the port area is kept by the staff appointed as the operation officer by the portmanagement. It is recorded in accordance with the "16.21". Instructions for Updating and Keeping Records of Dangerous and Hazardous Goods in the Port Facility".

7.3. Procedures for verifying that dangerous goods arriving at the facility are properly identified, that the correct shipping names of dangerous goods are used, certified, packed, labeled and declared, and that they are safely loaded and transported in the appropriate packing, container or cargo transport unit, and procedures for reporting control results

Methanol, which is required for the production needs of the adjacent facility, is handled by pipeline. The product, which is taken to the storage tanks in the facility with pipelines, is delivered to the factory production units as needed via a closed system pipeline. Since the dangerous goods are transported with the existing unloading system, transport containers are not used and there is no need for packing.

Periodic maintenance of dangerous goods handling equipment in the facility is carried out through the "Maintenance and Repair Management System" program.

7.4. Procedures for the supply and retention of Safety Data Sheet (SDS)

Mandatory documents, information and papers related to dangerous goods (UN 1230) are submitted by the supplier company.

7.5. Procedures for keeping records and statistics of dangerous goods

"16.21. Hazardous and Harmful Substances Located Within the Port Facility are recorded in accordance with the" Instruction on Updating and Keeping Records of Hazardous and Harmful Substances."

7.6. Information on the Quality Management System

MKS Marmara Port Facility operates in line with the following systems. Certificates and audit results of the systems are available at the coastal facility:

- ❖ ISO 9001 Quality Management System,
- ❖ ISO 45001 Occupational Health and Safety Management System,
- ❖ ISO 14001 Environmental Management System,
- ❖ ISO 50001 Energy Management System,
- ❖ FAMI-QS Quality & Safety Management System for Specialty Feed Ingredients,
- ❖ ISO-27001 Information Security Management System
- ❖ ISCC-PLUS-Cert-PL214-90981244

8. EMERGENCIES, EMERGENCY PREPARATION AND RESPONSE



Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	26 /32

8.1. Procedures for response to dangerous goods that pose/may pose a risk to life, property and/or the environment and dangerous situations involving dangerous goods.

"13.PL.01 Coastal Facility Emergency Plan" and "13.08.09 Emergency Action Plan" is followed.

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

- MKS Marmara Entegre Kimya has the following equipment as firefighting and emergency response equipment.
- 55 alarm buttons,
- 281 fire extinguishers of different sizes and types,
- 32 fire cabinets,
- 2 fire pumps,
- 1 fire monitor,
- 37 fire exit valves,
- 1 fire resistant aluminized suit,
- 2 300 m³ water tanks
- Minimum 100 chemical resistant coveralls,
- Minimum 10 Gas Masks
- 1 stretcher,
- 1 oxygen cylinder,
- 1 infirmary,
- 15 first aid cabinets.
- 1 fire trailer
- 2 EX marine radios
- There are 2 1500 KVA generators at MKS Marmara to provide energy to the facility in case of emergency power outages. In addition, there is 1 250 KVA emergency generator and 9 x 10 kVA, 1 x 1 kVA UPSs for computer systems, ensuring continuity of service in case of power outage.

8.3. Regulations regarding the first response to accidents involving dangerous goods (Procedures for first response, first aid facilities and capabilities, etc.)

First Notification procedures, first aid facilities and capabilities are carried out as specified in 13.PL.01 Coastal Facility Emergency Plan and 13.48 First Aid Instruction.

Accidents and incidents are first notified by the Harbor Master or related staff verbally by the Incident Scene Coordinator via phone. In the verbal notification, the nature of the accident, the cause of the accident, the time, the number of dead or injured staff, if any, and the measures taken or to be taken are included. After the verbal notification, following the completion of accident prevention activities and emergency procedures, a written report containing the following information is notified to the relevant Port Authority.

8.4. Notifications to be made inside and outside the facility in case of emergency

Carried out according to '13.PL.01 Coastal Facility Emergency Plan'.

a) Operation Coordinator: Organizes and manages all operations in possible emergencies that may occur at MKS Marmara Entegre Kimya Sanayi Coastal Facility. Gives all strategic directives from Emergency Management to the last stage of the emergency response.

b) Incident Scene Coordinator: Manages, coordinates and supervises all operations in possible emergencies that may occur at MKS Marmara Entegre Kimya Sanayi Coastal Facility on behalf of the Operation Coordinator. It is also the responsibility of the Incident Scene Coordinator to liaise with the relevant Port Authority and other relevant institutions and organizations in emergency situations.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	27 /32

c) Incident Safety Unit: Ensures that safety measures are taken and monitored in all operations in all possible emergencies that may occur at MKS Marmara Entegre Kimya Sanayi Coastal Facility.

8.5. Accident reporting procedures

Accidents and incidents are primarily reported by the Incident Scene Coordinator to the relevant Port Authority or the staff verbally via phone. In the verbal notification, the nature and cause of the accident, the time, the number of dead or injured personnel, if any, the measures taken or to be taken are included.

In cases related to dangerous goods, following the completion of accident prevention activities and emergency procedures after the verbal notification, it is reported to the Regional Port Authority with the 21.FR-06 Dangerous Goods Incident / Accident Notification Form containing the following information.

- The time of the accident,
- If known, how the accident occurred and why,
- Location (coastal facility and/or ship), position and area of impact of the accident,
- If there is a ship involved in the accident, information (name, flag, IMO number, owner, operator, cargo and quantity, captain's name and similar information),
- Meteorological conditions,
- UN number, appropriate transportation name (based on the legislation specified in the definition of dangerous goods) and quantity of dangerous goods,
- Hazard class of the dangerous substance or sub-hazard section, if any,
- Packing group of the dangerous substance, if any,
- Additional risks of the dangerous substance, such as marine pollutants, if any,
- Mark and label details of the dangerous substance,
- The characteristics and number of the package, cargo transport unit and container in which the dangerous goods are transported, if any,
- The producer, sender, carrier and receiver of the dangerous goods,
- Extent of damage/pollution,
- The number of injured, dead and missing, if any,
- Emergency response practices carried out by the coastal facility for the accident

In accordance with the Notification and Special Permit Directive on Maritime Transport of Dangerous Goods, accidents and incidents related to dangerous goods are also notified to the Administration via e-mail via deniz.tmkt@uab.gov.tr address. The report prepared regarding accidents and incidents related to dangerous goods must be signed by the person authorized to represent and delivered to the relevant Port Authority within 12 (twelve) hours at the latest.

8.6. Methods of coordination, support and cooperation with public authorities

In case of emergency, it is the responsibility of the On-Scene Coordinator to liaise with the relevant Port Authority and other relevant institutions and organizations.

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

In MKS MARMARA Kimya Entegre Kimya facility, the ship is discharged from the coastal facility with the consensus of the Ship Captain, Harbor Pilot and Terminal Authorities of the Ship and Marine Vehicles for all kinds of emergencies such as fire etc. that may occur during discharge.

The discharge and unberthing process is carried out by the company providing the relevant trailer and pilotage services by towing to the coordinates in Annex-1 of the Ports Regulation dated 31.10.2012.

GEMLİK REGIONAL PORT AUTHORITY

A) Port administrative area boundary

The port administrative area of the Gemlik Regional Port Authority is the sea and coastal area within the line formed by the following coordinates.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	28 /32

- a) 40° 33' 00" N – 028° 47' 30" E
- b) 40° 33' 00" N – 028° 43' 24" E
- c) 40° 30' 00" N – 028° 43' 24" E
- d) 40° 21' 36" N – 029° 00' 00" E

B) Anchorage areas

a) Anchorage area No. 1: The anchorage area for ships not carrying dangerous cargo and military ships is the sea area formed by the following coordinates.

- 1) 40° 27' 12" N – 029° 06' 00" E
- 2) 40° 26' 36" N – 029° 05' 24" E
- 3) 40° 25' 54" N – 029° 07' 24" E
- 4) 40° 26' 06" N – 029° 08' 00" E

b) Anchorage area no. 2: The anchorage area for ships carrying dangerous cargo, nuclear-powered military ships, ships to be quarantined, and ships to undergo degassing is the sea area formed by the following coordinates.

- 1) 40° 28' 00" N – 029° 03' 00" E
- 2) 40° 28' 00" N – 029° 04' 36" E
- 3) 40° 27' 24" N – 029° 04' 36" E
- 4) 40° 27' 24" N – 029° 03' 00" E

C) Pilot boarding and disembarking point

40° 26' 00" N – 029° 06' 06" E

8.8. Procedures for the handling and disposal of damaged dangerous goods and wastes contaminated by dangerous goods

15.01 Waste Management Instructions

15.01-1 Waste Disposal Record Form

15.01-2 Waste Management Table

15.02 Wastewater Management Instructions

15.06 Medical Waste Control Instructions

15.06-2 Medical Waste Control Form

15.07-1 MKS Wastewater Analysis Record Form,

15.07-2 M Wastewater System Diagram

15.07-3a Waste Treatment System Control Form

15.Fr.01 Hazardous Waste Transport Document

2.82-1 Waste Area Tracking Form

21.02-01 Waste Classification Table

23.06 Instructions for Automatically Printing Lot Numbers on Product Bags

5.07.05 Wastewater Analysis Instructions

8.32 Formaldehyde and Acetaldehyde Plant Pneumatic Valve Adjustment and Maintenance Instructions

Gt.2.65 Environmental and Waste Management Operator

8.9. Emergency drills and their records

The training and drill program (within the framework of MKS Marmara MKS Marmara Entegre Kimya Sanayi Emergency Action Plan) required to be taken by emergency teams is available in MKS Marmara Entegre Kimya Sanayi Annual Training and Drill Plans. It is also carried out according to the training and drill program in RD.017 Risk Assessment and 13.08.9 Emergency Response Plan.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	29 /32

8.10. Information on fire protection systems

MKS Marmara has the following equipment as firefighting and emergency response equipment.

- 55 alarm buttons,
- 281 fire extinguishers of different sizes and types,
- 32 fire cabinets,
- 2 fire pumps,
- 1 fire monitor,
- 37 fire exit valves,
- 1 fire resistant aluminized suit,
- 2 300 m³ water tanks
- Minimum 100 chemical resistant coveralls,
- Minimum 10 Gas Masks
- 1 stretcher,
- 1 oxygen cylinder,
- 1 infirmary,
- 15 first aid cabinets.
- 1 fire trailer
- 2 EX marine radios
- There are 2 1500 KVA generators at MKS Marmara to provide energy to the facility in case of emergency power outages. In addition, there is 1 250 KVA emergency generator and 9 x 10 kVA, 1 x 1 kVA UPSs for computer systems, ensuring continuity of service in case of a power outage.

8.11. Procedures for approval, inspection, testing, maintenance and availability of fire protection systems

Controls related to fire protection systems are carried out in accordance with the instructions below:

13.02 Fire Tube and Hydrant (Fire Water Valve) Usage Principles and Reporting Instructions

13.16 Fire Response System Operating Instructions

13.FR.14 Fire Extinguishers, Cabinets, Hydrants and First Aid Equipment Control Form

13.46 Fire Foam Monitor Operation and Maintenance Instructions

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

In cases where fire protection systems do not work, portable fire extinguishers, foam monitors are used and the aerosol fire extinguishing system in the electrical panels is automatically activated. In emergency situations where these systems are not sufficient and fire protection systems do not work; the facility is completely evacuated. Necessary notifications are made to the fire brigade, AFAD and Provincial-District health directorates and "fire protection systems are not working" is notified.

Evacuation of critical staff (foremen and supervisors on shift) for the safe shutdown and securing of production facilities is carried out after the production facilities are secured.

8.13. Other risk control equipment

Methanol detectors and level measurement devices in tanks are available.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	30 /32

9. OCCUPATIONAL HEALTH AND SAFETY

9.1. Occupational Health and Safety Measures

MKS Marmara facility operates in accordance with the 6331 Occupational Health and Safety Law and related regulations.

13.08 General Occupational Health and Safety Instructions, 18.01 Management Systems Risk Assessment Procedures, 13.22 Occupational Health and Safety Board Meeting Instructions and 11.03 Personnel Contractor, Visitor, Intern, Driver and Transportation Vehicles Management Instructions are followed.

9.2. Information on personal protective clothing and procedures for its use

13.07-3 Personal Protective Equipment User Manual is followed.

9.3. Confined space entry permit measures and procedures

There are no enclosed areas at the coastal facility.

10. OTHER CONSIDERATIONS

10.1. Validity of the Dangerous Goods Conformity Certificate

MKS MARMARA PIPELINE AND BUOY SYSTEM

Dangerous Goods Conformity Certificate:

BKN.761628.TMUB.124 Validity Date: **02.06.2026**

Within the scope of the Regulation on the Procedures and Principles Regarding the Granting of Operating Permits for Coastal Facilities published in the Official Gazette dated 18.2.2007 and numbered 26438, the coastal facility operating permit for MKS Marmara Pipeline and Buoy System was renewed until 02.06.2026.

10.2. Tasks defined for the Dangerous Goods Safety Advisor (DGSA)

Pursuant to Article 8 of the Regulation on Dangerous Goods Safety Advisory Services, DGSA performs the duties specified in ADR/RID 1.8.3 and within the scope of the legislation on the transportation of dangerous goods by road, rail and sea in the facilities where it provides DGSA services.

10.3. Considerations for those carrying dangerous goods that will arrive at/leave the coastal facility by road (Documents that road vehicles carrying dangerous goods must have at the entrance/exit from/to the port or coastal facility area, equipment and tools that these vehicles must have, speedlimits in the port area, etc.)

The facility operates as a shore facility, pipeline, and buoy system. The documents required for entry and exit at the adjacent production facility are those required to be carried in the vehicle under ADR regulations. The speed limit in the port area is 20km/h.

10.4. Considerations for those carrying dangerous goods that will arrive at/leave the coastal facility by sea (day/night signals to be displayed by ships and marine vessels carrying dangerous goods at the port or coastal facility, cold and hot working procedures on ships, etc.)

No vessels dock at the coastal facility by sea; the coastal facility serves as a pipeline and buoy system.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	31 /32

10.5. Additional considerations to be added by the coastal facility

MKS MARMARA PIPELINE AND BUOY SYSTEM is managed in accordance with the following policies.

- Quality Management System Policy
- Occupational Health and Safety & Environment & Energy Management System Policy
- Information Security Management System Policy
- Quality & Safety Management System Policy for Specialty Feed Content
- Prevention of Major Industrial Accidents Policy
- Port Facility Accident Prevention Policy

11. ANNEXES

1. General site plan of the coastal facility
2. General overview photographs of the coastal facility
3. Emergency Contact Points and Contact Information
4. General Layout Plan of the Areas where Dangerous Goods are Handled
5. Fire Plan of Areas where Dangerous Goods are Handled
6. General Fire Plan of the Facility
7. Emergency Plan
8. Emergency Gathering Places Plan
9. Emergency Management Scheme
10. Dangerous Goods Manual
11. Sealing areas and equipment for CTU and Packages, inlet/outlet drawings
12. Inventory of Port Service Vessels
13. Sea coordinates of the administrative boundaries of the Port Authority, anchorage areas and pilot landing / disembarking points
14. Emergency response equipment against marine pollution in the coastal facility
15. Personal protective equipment (PPE) usage map
16. Dangerous goods incidents notification form
17. Control results notification form for dangerous cargo transport units (CTUs)
18. Other necessary annexes
19. Dangerous Goods Handling Guide Additional Goods Notification (Where necessary)

12. ABBREVIATIONS

IBC Code: International Code for the Construction and Equipment of Ships Carrying Bulk Dangerous Chemicals

IMDG Code: International Code for Dangerous Goods Carried by Sea

IMO: International Maritime Organization

MARPOL: International Convention for the Prevention of Pollution from Ships

SOLAS: International Convention for the Safety of Life at Sea

DGSA: Dangerous Goods Safety Advisors authorized by the Ministry

TYUB: Coastal Facility Dangerous Goods Compliance Certificate issued by the Administration and required to be obtained by coastal facilities handling packaged or bulk dangerous goods.



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	32 /32

13. DEFINITIONS

Packaging: The transport container in which the dangerous goods are placed, as defined in IMDG Code Section 6

Bulk goods: Solid, liquid and gaseous substances which are a structural part of the ship or which are contained in a tank or hold permanently fixed in or on the ship and which are intended to be transported without direct containment,

d) Fumigation: The process of introducing a certain amount of gaseous fumigant into a closed environment at a certain temperature and keeping it in the environment for a certain period of time in order to destroy harmful organisms

Handling: Loading and unloading, stacking, sorting, relocating, loading and unloading of dangerous goods, changing or repairing goods transport units and packaging, and similar operations for transportation

Temporary storage: Temporary storage of dangerous goods subject to transportation at the coastal facility

Ship: Ships included in the scope of the legislation or international conventions to which we are a party 30

Ship officer: The shipowner, operator, lessee, captain or their agents and natural or legal persons authorized to represent the shipowner

Administration General Directorate of Maritime Affairs

Indoor area: An area that is not designed for continuous operation, has a fixed or mobile ceiling or roof (including tents, sunshades, etc.), and has all or more than half of its side surfaces temporarily or permanently completely or permanently closed, except for access ways (doors, windows, manholes, etc.), with restricted entry-exit, and in which dangerous goods are / will be located

Accident: An event or chain of events or incidents caused by dangerous goods or involving dangerous goods that have harmful consequences such as death, injury, material damage and environmental pollution during the transportation of dangerous goods by sea or handling and/or temporary storage of dangerous goods in coastal facilities

Coastal Facility: Port, dock, pier, berth, berthing place, fuel oil, liquefied gas or chemical pipeline buoy or platform, including storage areas, where ships or marine vessels can safely take on and take off cargo or shelter

Container: Goods transport equipment certified in accordance with the standards applicable under the International Convention on Safe Containers (CSC Convention)

Dangerous goods:

- 1) Petroleum and petroleum products listed in Annex I, Exhibit 1 of the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78
- 2) Substances and objects transported in packages given in IMDG Code Section 3
- 3) Bulk goods with the phrase "B" and "A and B" in the group box on the characteristic table among the goods given in the IMSBC Code Exhibit 1
- 4) Liquid substances with the phrase "S" or "S/P" in column "d" titled "hazards" of the table given in IBC Code Section 17

Loading safety: Safe lashing and stowing of the goods transport unit or goods loaded in the ship's hold or on the ship's deck, and safe lashing and stowing of the goods to be loaded into the goods transport unit

Shipper: The real or legal person specified as "shipper" in the bill of lading, maritime transport bill or multimodal transport document, and the real or legal person with whom or on whose behalf a contract of carriage is concluded with a shipping company



DANGEROUS GOODS HANDLING GUIDE

Document nr.	21.PL.02
Pub. Date	16.12.2025
Rev. Nr	6
Rev. Date	16.12.2025
Page number	33 /32

Goods dealer: Sender, receiver, representative or transport organizer of the dangerous goods

Cargo transport unit (CTU): Road trailer, semi-trailer and tanker, portable tank and multi-element gas container, railway wagon and tank wagon, container and tank container, designed and manufactured for the transport of packaged or bulk dangerous goods

Flexible pipe, flexible pipe and end connections used for the transfer of hazardous substances, which may include sealing of the ends

Hot work: The use of open fires and flames, power tools or hot rivets, grinding, soldering, burning, cutting, welding or any process that involves, emitting or sparks heat

Pipeline: It means all pipes, connections, valves and other auxiliary installations, apparatus and devices used in the port for or in connection with the handling of dangerous cargoes, but does not include the flexible pipe, the loading arm or the pipes, apparatus or equipment of the ship, except parts of the ship's pipes, apparatus or equipment to which the flexible pipe is connected.

14. PRESENTATION

This guide is limited to dangerous goods that are located, used and kept for storage in the port area as part of the transportation chain. In case of transportation of a substance within this scope, the rules and procedures in this guide should be applied.

The safety and security of ships, goods and their personnel and the safety and security of workers in the port area are directly related to the measures to be taken with regard to dangerous goods before loading or unloading and during their processing. The safe transportation and handling of dangerous goods is based on the correct and sensitive application of the regulations on the transportation and handling of such goods and depends on the acceptance and full and detailed understanding of the regulations by all people concerned with the risks in this context. This matter can only be achieved through proper and planned training and retraining.