

Republic of the Union of Myanmar

Ministry of Transport and Communications

Road Transport Administration Department (Head Office)

Nay Pyi Taw

Ref : Kaupa-339(Kha)/2017/3008

Date : 6 November 2017

Directive - 29 /17

Subject : Equipment on board for Dangerous Goods Transport by Road Vehicle and Actions to follow in the event of an accident or emergency

Ref : (1) “Ordinance No. 27/17” dated 21.3.2017 with reference number Kaupa-338(Kha)/2017/623 issued by Road Transport Administration Department
(2) “Ordinance No. 11/17” dated 2.5.2017 with reference number Kaupa-339(Kha)/2017/898 issued by Road Transport Administration Department
(3) “Ordinance No. 12/17” dated 2.5.2017 with reference number Kaupa-339(Kha)/2017/899 issued by Road Transport Administration Department
(4) “Ordinance No. 16/17” dated 1.6.2017 with reference number Kaupa-339 (Kha) / 2017 / 1361 issued by Road Transport Administration Department

1. Ordinances and Directives for Classification of Dangerous Goods transport by vehicle and Regulations for movement of dangerous goods, vehicle marking, container marking and tank marking for vehicle which is carrying dangerous goods, Labelling for dangerous goods classes and Loading and Unloading of Dangerous Goods Transport were issued by reference letters.

2. Apart from the above-mentioned regulations, every transport vehicle shall bring the equipment **Annex (1)** for dangerous goods transport by road .

3. Moreover, driver and vehicle crew shall know and follow the actions in the event of an accident or emergency for transport of dangerous goods as **Annex (2)**, additional guidance on the hazard characteristics of dangerous goods by label and placard as **Annex (3)** and the hazard characteristics of dangerous goods by other marks as **Annex (4)**.

4. So, the above-mentioned Annex (1), (2), (3) and (4) are directed emphasis on educating, giving awareness, distributing pamphlets for this regulations to domestic and cross-border transport operators, drivers and vehicle crew.

5. All the branches of Road Transport Administration Department have to reply the received and acknowledgement of this Directive. Associations have to inform transport operators and guide them as needed.

6. Paragraph No.4 of the Referred Ordinance (2) is canceled by this Directive.

Enclosures: Annex (1) - 1 sheet

Annex (2) – 2 sheets

Annex (3) – 5 sheets

Annex (4) – 1 sheet

for Director General
(Htin Kyaw, Director)

1. **Head of Branches of**
Road Transport Administration Department
2. **Head of Branches of**
Transport Planning Department
3. **Chairman, Supervision Committee of Petroleum Products Importing, Storing, Transporting and Distributing Committee**
4. **Chairman, Myanmar International Freight Forwarder Associations**
5. **Chairman, Myanmar Chemical Industries Association**
6. **Chairman, Myanmar Highway Freight Transport Services Association**
7. **Chairman, Myanmar Container Trucking Association**
8. **Chairman, Myanmar Petroleum Trade Association**

CC-

Chairman, National Transport Facilitation Committee (NTFC)

Ministry of Transport and Communications

Myanmar Police Force

Department of Environmental Conservation

Myanmar Petrol Chemical Enterprise

Directorate of Industrial Collaboration

Customs Department

Director General (Secretariat)

Deputy Director General

Directors of all divisions

Chief Engineer

Deputy Directors, Assistant Directors and all officials of same level

All Divisions of Head Office

Office file

Floating file

Equipment on board in conformity with Chapter (8.1.5) of ADR

1. Equipment shall be carried on board vehicle:
 - (a) A wheel chock of a size suited to the maximum mass of the vehicle and to the diameter of the wheel
 - (b) Two self-standing warning signs
 - (c) Eye rinsing liquid
 - (d) Fire Extinguisher
2. Equipment for each member of the vehicle crew
 - (a) An appropriate warning vest in line with the standard
 - (b) Eye protection (e.g. protective goggles)
 - (c) Portable lighting apparatus or lighting equipment
 - (d) A pair of protective gloves
3. Apart from the above mentioned equipment, the following materials must be carried on board of the vehicle for the dangerous goods class (2.3: Toxic gases) and (6.1: Toxic substances):
 - (a) An emergency escape mask for each member of the driver and vehicle crew shall be carried on board
 - (b) A shovel
 - (c) A drain seal to protect leakage of dangerous goods to sewer
 - (d) A collecting container

Instructions for actions in the event of an accident or emergency while transporting**Dangerous Goods**

1. Apply the braking system, stop the engine and isolate the negative terminal of battery;
2. Avoid sources of ignition, do not smoke, not to use electronic cigarettes or similar devices;
3. Take responsibility for accident and emergency and clean up dangerous goods quickly for safety, then inform at once to the inspection group formed under Prevention of Hazard from Chemical and Related Substances Law;
4. Put on the standardized warning vest and place the self-standing warning signs as appropriate;
5. Keep the valid business license issued by Supervision of Prevention of Hazard from Chemical and Related Substances, Ministry of Industry readily available to be checked by authorities;
6. Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapors by staying up wind;
7. Use the fire extinguishers to put out small/initial fires in tyres, brakes and engine compartments;
8. Fires in load compartments shall not be tackled by members of drivers and the vehicle crew and take the help of the emergency services;
9. Use on-board equipment like Drain Seal to prevent leakages into the aquatic environment or the sewage system and to contain spillages;
10. Move away from the vicinity of the accident or emergency, advise other persons to move away and follow the advice of the emergency services; (e.g, Inspection group formed under Prevention of Hazard from Chemical and Related Substances Law, Myanmar Police Force, Fire Service Department);
11. Remove any contaminated clothing and used contaminated protective equipment and dispose of it safely.

Additional guidance to members of drivers and the vehicle crew on the hazard characteristics of Dangerous Goods by Class and on actions subject to prevailing circumstances		
Danger labels and placards	Hazard characteristics	Additional guidance
Explosive substances and articles 1 1.5 1.6	<ul style="list-style-type: none"> - May have a range of properties and effects such as mass detonation; projection of fragments; intense fire/heat flux; formation of bright light, loud noise or smoke. - Sensitive to shocks and / or impacts and / or heat. 	Take cover but stay away from windows.
Explosive substances and articles 1.4	Slight risk of explosion and fire.	Take cover.
Flammable gases 2.1	<ul style="list-style-type: none"> - Risk of fire. - Risk of explosion. - May be under pressure. - Risk of asphyxiation. - May cause burns and/or frostbite. - Containments may explode when heated. 	<ul style="list-style-type: none"> - Take cover. - Keep out of low areas.
Non-flammable, non-toxic gases 2.2	<ul style="list-style-type: none"> - Risk of asphyxiation. - May be under pressure. - May cause frostbite. - Containments may explode when heated. 	<ul style="list-style-type: none"> - Take cover. - Keep out of low areas.

<p>Toxic gases</p> <p>2.3</p>	<ul style="list-style-type: none"> - Risk of intoxication. - May be under pressure. - May cause burns and/or frostbite. - Containments may explode when heated. 	<ul style="list-style-type: none"> - Use emergency escape mask. - Take cover. - Keep out of low areas.
<p>Flammable liquids</p> <p>3</p>	<ul style="list-style-type: none"> - Risk of fire. - Risk of explosion. - Containments may explode when heated. 	<ul style="list-style-type: none"> - Take cover. - Keep out of low areas.
<p>Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives</p> <p>4.1</p>	<ul style="list-style-type: none"> - Risk of fire. Flammable or combustible, may be ignited by heat, sparks or flames. - May contain self-reactive substances that are liable to exothermic decomposition in the case of heat supply, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock. This may result in the evolution of harmful and flammable gases or vapours or self-ignition. - Containments may explode when heated. - Risk of explosion of desensitized explosives after loss of desensitizer. 	
<p>Substances liable to spontaneous combustion</p> <p>4.2</p>	<ul style="list-style-type: none"> - Risk of fire by spontaneous combustion if packages are damaged or contents are spilled. - May react vigorously with water. 	

Substances which, in contact with water, emit flammable gases 4.3	Risk of fire and explosion in contact with water.	Spilled substances should be kept dry by covering the spillages.
Oxidizing substances 5.1	Risk of vigorous reaction, ignition and explosion in contact with combustible or flammable substances.	Avoid mixing with flammable or combustible substances (e.g. sawdust).
Organic peroxides 5.2	Risk of exothermic decomposition at elevated temperatures, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock. This may result in the evolution of harmful and flammable gases or vapours or self-ignition.	Avoid mixing with flammable or combustible substances (e.g. sawdust).
Toxic substances 6.1	<ul style="list-style-type: none"> - Risk of intoxication by inhalation, skin contact or ingestion. - Risk to the aquatic environment or the sewerage system. 	Use emergency escape mask.
Infectious substances 6.2	<ul style="list-style-type: none"> - Risk of infection. - May cause serious disease in humans or animals. - Risk to the aquatic environment or the sewerage system. 	Use emergency escape mask.
Radioactive material 7A 7B 7C 7D	Risk of internal and external radiation.	Limit time of exposure.

Fissile material 7E	Risk of nuclear chain reaction.	
Corrosive substances 8	<ul style="list-style-type: none"> - Risk of burns by corrosion. - May react vigorously with each other, with water and with other substances. - Spilled substance may evolve corrosive vapours. - Risk to the aquatic environment or the sewerage system. 	
Miscellaneous dangerous substances and articles 9A	<ul style="list-style-type: none"> - Risk of burns. - Risk of fire. - Risk of explosion. - Risk to the aquatic environment or the sewerage system. 	

NOTE 1: *For dangerous goods with multiple risks and for mixed loads, each applicable entry shall be observed.*

NOTE 2: *In addition to the above-mentioned guidance, the classes of dangerous goods to be carried and their means of transport must follow laws, rules and regulations of the Prevention of Hazard from Chemical and Related Substances issued by the Ministry of Industry.*

Annex (4)

Additional guidance to members of the vehicle crew on the hazard characteristics of dangerous goods, indicated by marks, and on actions subject to prevailing circumstances		
Mark	Hazard characteristics	Additional guidance
Environmentally hazardous substances	Risk to the aquatic environment or the sewerage system	-
Elevated temperature substances	Risk of burns by heat.	Avoid contact with hot parts of the transport unit and the spilled substance.

Republic of the Union of Myanmar

Ministry of Transport and Communications

Road Transport Administration Department (Head Office)

Nay Pyi Taw

Ref : Kaupa-339(Kha)/2018/291

Date : 30 January 2018

Directive – 7/18

Subject : Documents that shall be carried on board for dangerous goods transport by road vehicle

Ref : (1) “Ordinance No.27/17” dated 21.3.2017 with reference number Kaupa-338(Kha)/2017/623 issued by Road Transport Administration Department
(2) “Ordinance No.11/17” dated 2.5.2017 with reference number Kaupa-339(Kha)/2017/898 issued by Road Transport Administration Department
(3) “Ordinance No.12/17” dated 2.5.2017 with reference number Kaupa-339(Kha)2017/899 issued by Road Transport Administration Department
(4) “Ordinance No.16/17” dated 1.6.2017 with reference number Kaupa-339(Kha)/2017/1361 issued by Road Transport Administration Department
(5) “Ordinance No.29/17” dated 6.11.2017 with reference number Kaupa-339(Kha)/2017/3008 issued by Road Transport Administration Department

1. Ordinances and Directives for Classification of dangerous goods transport by road and Regulations for movement of dangerous goods in land and cross-border transport on road Placard for vehicle which is carrying dangerous goods, Labelling for dangerous goods classes, Installing Vehicle Marking, Container Marking and Tank Marking, Loading and Unloading of dangerous goods Transport and Equipment on board vehicle and Actions in the event of an accident or emergency for dangerous goods Transport were issued by reference letters.

2. The following documents shall be carried on board while performing the domestic dangerous goods transportation:

- (a) A Valid License issued by Supervision of Prevention of Hazards from Chemical and Related Substances Committee;

- (b) The followings according to Directive 29/17:
 - (i) Equipment on board in conformity with Chapter (8.1.5) of ADR;
 - (ii) Instructions for actions in the event of an accident or emergency while transporting dangerous goods;
 - (iii) Additional guidance to members of drivers and the vehicle crew on the hazard characteristics of dangerous goods by Class and on actions subject to prevailing circumstances;
 - (iv) Additional guidance to members of the vehicle crew on the hazard characteristics of dangerous goods, indicated by marks, and on actions subject to prevailing circumstances.
 - (c) The followings that are issued by Supervision Committee of Petrol and Petroleum Products:
 - (i) Certified copy of manufacturing company for vehicle which is constructed in appropriate to carry for petrol liquefied gas;
 - (ii) Drawing copy of Bowser or Tank Lorry issued by an engineer;
 - (iii) Copy of Hydrostatic Test (Renew every 5 years);
 - (iv) Copy of Radiographic Test (Renew every 10 years);
 - (v) Registration certificate for Bowser or Tank Lorry issued by Road Transport Administration Department;
 - (vi) Certificate to carry petrol gas for receptacles tank issued by Department of Mining.
 - (d) Certificate of Driver's Training Course to carry dangerous goods for driver.
 - (e) Documentation of the Driver and Vehicle Crew, that attached their Photos (Driver's License and Vehicle Crew's License).
3. In addition to the above-mentioned documents described in 2(b) and (d), the following documents shall be carried for cross-border transport of dangerous goods:
- (a) Transport documents as attached **Annex (1)** (Consignor shall issue the transport document and it is only for cross-border transport vehicle)

- (b) EX/II, EX/III, FL, AT and MEMUs vehicles that are defined in **Annex (2)** shall have the Certificate of Approval of Vehicle issued by the authority of the country where vehicle is registered.
- (c) Documents attached with photos of driver and vehicle crew (Driving License Passport and Vehicle Crew Certificate)

4. Moreover, cross-border transport of dangerous goods shall need a “permit” from National Transport Facilitation Committee (NTFC) according to the Cross-border Transport Agreements for ASEAN and GMS. But the Cross-border transport which is not related with these agreements shall need a permission from Government of the Republic of the Union of Myanmar.

5. When transporting dangerous goods by roads, the Prevention of Hazards from Chemical and Related Substances Law issued by Ministry of Industry and other existing laws, rules and regulations shall be followed.

6. So, the above-mentioned Annex (1) and (2) are directed emphasis on educating, giving awareness, distributing pamphlets for this regulations to domestic and cross-border transport operators, drivers and vehicle crew.

7. All the branches of Road Transport Administration Department have to reply the receipt and acknowledgement of this Directive. Associations have to inform transport operators and guide them as needed.

Enclosures: Annex (1) – 1 sheet

Annex (2) – 2 sheets

for Director General
(Htin Kyaw, Director)

1. **Head of Branches of**
2. **Road Transport Administration Department**
3. **Head of Branches of**
4. **Transport Planning Department**
5. **Chairman, Supervision Committee of Petroleum Products Importing, Storing, Transporting and Distributing Committee**
6. **Chairman, Myanmar International Freight Forwarder Associations**

7. **Chairman, Myanmar Chemical Industries Association**
8. **Chairman, Myanmar Highway Freight Transport Services Association**
9. **Chairman, Myanmar Container Trucking Association**
10. **Chairman, Myanmar Petroleum Trade Association**

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Myanmar Petrol Chemical Enterprise

Directorate of Industrial Collaboration

Customs Department

Director General (Secretariat)

Deputy Director Generals (Admin)

Directors of all divisions

Chief Engineer

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All Divisions of Head Office

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Transport Document Sample

<p>ADR Transport Document</p> <p>Consignor: Company XYZ</p> <p>Address: A Road, Town, Country/Country</p> <p>Date: dd/mm/yy</p>		
Dangerous goods Description:	No. of packages/type	Total quality
UN 1134, chlorobenzene, 3, PG III (D/E)	20 x 200 liter plastic drums (1H2)	4000 liters
UN 1760, corrosive liquid, N.O.S. (contains sodium hydroxide), 8, PG III, (E)	10x10 liter plastic drums (1H1)	100 liters
<p>Consignee(s): Company ABC</p> <p>Address: A Road, Town, Country/Country</p>		

Remark: Reference from ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road): A Guide for Business (H & SA)

Definitions

1. EX/II Vehicle
Or
EX/III Vehicle

A vehicle intended for the carriage of explosive substances and articles (Class 1):

2. FL Vehicle

A vehicle intended for the carriage of liquids having a flash-point of not more than 60°C (with the exception of diesel fuel complying with standard EN 590:2013 + AC:2014, gas oil, and heating oil (light) – UN No.1202 with a flash-point as specified in standard EN 590:2013+ AC:2014) in fixed tanks or demountable tanks with a capacity exceeding 1m³ or in tank-containers or portable tanks with an individual capacity exceeding 3m³; or A vehicle intended for the carriage of flammable gases in fixed tanks or demountable tanks with a capacity exceeding 1m³ or in tank-containers, portable tanks or MEGCs with an individual capacity exceeding 3m³ ; or

A battery-vehicle with a total capacity exceeding 1 m³ intended for the carriage of flammable gases: or

A vehicle intended for the carriage of hydrogen peroxide, stabilized or hydrogen peroxide, aqueous solution stabilized with more than 60 % hydrogen peroxide (Class 5.1, UN No.2015) in fixed tanks or demountable tanks with a capacity exceeding 1m³ or in tank-containers or portable tanks with an individual capacity exceeding 3m³;

3. AT Vehicle

A vehicle, other than EX/III or FL vehicle or than a MEMU, intended for the carriage off dangerous goods in fixed tanks or demountable tanks with a capacity exceeding 1m³ or in tank-containers, portable tanks or

MEGCs with an individual capacity exceeding 3m³; or A battery-vehicle with a total capacity exceeding 1m³ other than a FL vehicle;

4. MEMU (Mobile
Explosive
Manufacturing Unit

A vehicle meeting the definition of mobile explosives manufacturing unit in ADR 1.2.1

Republic of the Union of Myanmar

Ministry of Transport and Communications

Road Transport Administration Department (Head Office)

Nay Pyi Taw

Ref : Kaupa-338(Kha)/2018/836

Date : 28 March 2018

Directive - 10 /18

Subject : Regulations on Classification of Dangerous Goods Transport by Road according to Table A and B of Chapter 3.2 of ADR

Ref : Ordinance No.27/17 dated 21.3.2017 with reference number Kaupa-338(Kha)/2017/623 issued by Road Transport Administration Department

1. Dangerous goods mean the substances to be hazardous to human being's health, safety and be disadvantages on country's safety and the environment according to "the Protocol 9: Dangerous Goods" of ASEAN Framework Agreement on the Facilitation of Goods in Transit (AFAFGIT) and "Annex 1: Carriage of Dangerous Goods" of Greater Mekong Sub-region Cross-Border Transport Facilitation Agreement (GMS-CBTA). Movement of dangerous goods in transit and cross-border transport by roads shall be controlled systematically.

2. Referring the United Nations Recommendations on Transport of Dangerous Goods (UNRTDG) and European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR), transport of dangerous goods by road vehicle is classified as **Annex (1)**.

3. The classes of dangerous goods are the same as the dangerous goods List of European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR 2017) and attached as **Annex (2)**.

4. According to the agreements, road transport operators shall request a special permission from the National Transport Facilitation Committee (NTFC) through Road Transport Administration Department for the movement of transit and cross-border transport of dangerous goods by road vehicle.

5. For the movement of dangerous goods in local or cross-border transport by roads shall follow the following:

- (i) In transporting dangerous goods, goods shall be packed systematically according to the classes;
- (ii) For carrying, dangerous goods shall be labelled according to the classes;
- (iii) Placard and Mark shall be affixed at the designated place of the road vehicle in order to be aware of the carriage of dangerous goods;
- (iv) Driver and vehicle crew shall complete the required training;
- (v) All necessary documents shall be on board and shall follow the rules and regulations;
- (vi) All necessary equipment shall be on board for precautions against fire and/or explosive.

6. Transport operators shall follow the detailed information according to the dangerous goods classification which is stated in Clause 53 of Material Safety Data Sheet of Prevention of Hazard from Chemical and Related Substances Law issued by Ministry of Industry. The Material Safety Data Sheet shall be prepared by Manufacturer or Importer.

7. The consignors shall follow the specific provisions of Chapter (2.2), (3.1), (3.2), (3.3) of ADR 2017 for dangerous goods transportation by road vehicle.

8. So, the above-mentioned Annex (1) and (2) are directed emphasis on educating, giving awareness, distributing pamphlets for this regulations to domestic and cross-border transport operators, drivers and vehicle crew.

9. All the branches of Road Transport Administration Department have to reply the receipt and acknowledgement of this Directive and Associations have to inform transport operators and guide them as needed.

10. Ordinance No. 27/17 which is stated as reference (1) is cancelled by this directive.

Enclosures: Annex (1) - 2 sheets

Annex (2) - 1 sheet and 1 CD

for Director General

(Htin Kyaw, Director)

1. **Head of Branches of**
Road Transport Administration Department
2. **Head of Branches of**
Transport Planning Department
3. **Chairman, Supervision Committee of Petrol and Related Products**
4. **Chairman, Myanmar International Freight Forwarder Associations**
5. **Chairman, Myanmar Chemical Industries Association**
6. **Chairman, Myanmar Highway Freight Transport Services Association**
7. **Chairman, Myanmar Container Trucking Association**
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Annex (1)**Classification of Dangerous Goods**

Dangerous Goods transported by road vehicle are classified as follow:

- | | |
|--------------------|---|
| (a) Class 1 | Explosives |
| (b) Class 2 | Gases |
| (i) Division 2.1 | Flammable gases |
| (ii) Division 2.2 | Non-flammable, non-toxic gases |
| (iii) Division 2.3 | Toxic gases |
| (c) Class 3 | Flammable liquids and liquid desensitized explosives |
| (d) Class 4 | |
| (i) Division 4.1 | Flammable solids, self-reactive substances, and solid desensitized explosives |
| (ii) Division 4.2 | Substances liable to spontaneous combustion |
| (iii) Division 4.3 | Substances which in contact with water emit flammable gases |
| (e) Class 5 | |
| (i) Division 5.1 | Oxidizing Substances |
| (ii) Division 5.2 | Organic peroxides |
| (f) Class 6 | |
| (i) Division 6.1 | Toxic substances |
| (ii) Division 6.2 | Infectious substances |
| (g) Class 7 | Radioactive material |
| (h) Class 8 | Corrosive substances |
| (i) Class 9 | Miscellaneous dangerous substances and articles |

Remark : The detail Classification of dangerous goods are stated in Chapter 2.2 of ADR

Annex (2)

Dangerous Goods Lists(Table A)

Sr.	Class No.	Number
1.	Class 1 Explosive Substances or Articles	375
2.	Class 2 Gases	232
3.	Class 3 Flammable Liquids	551
4.	Class 4 Flammable Solids, Self-reactive substances and Solid desensitized explosives	361
5.	Class 5 Oxidizing Substances	163
6.	Class 6 Toxic Substances	731
7.	Class 7 Radioactive Material	25
8.	Class 8 Corrosive Substances	356
9.	Class 9 Miscellaneous Dangerous Substances and Articles	41
Total		2835

Remark: Dangerous Goods List is being modified every two years and the detail list is in Table A and Table B of Chapter 3.2 of ADR 2017 are attached in the CD of this Directive.

Republic of the Union of Myanmar

Ministry of Transport and Communications

Road Transport Administration Department (Head Office)

Nay Pyi Taw

Ref : Kaupa-339(Kha)/2018/1413

Date : 3 May 2018

Directive - 11 /18

Subject : Vehicle Marking, Container Marking and Tank Marking for Dangerous Goods Transport

Ref : (1) “Ordinance No.-10/18” dated 28.3.2018 with reference number Kaupa-338(Kha)/2018/836 issued by Road Transport Administration Department
(2) “Ordinance No.-11/17” dated 2.5.2017 with reference number Kaupa-338(Kha)/2017/898 issued by Road Transport Administration Department

1. Regarding the dangerous goods transport by road, classifications and regulations for domestic and cross-border transport by road are issued by reference letter No. 1.

2. In order to be significant, the dangerous goods transport units shall be installed Vehicle Marking, Container Marking and Tank Marking as follow for carrying dangerous goods:

- (a) **Vehicle Marking:** Transport units carrying dangerous goods shall display orange-colored plates, one at the front and the other at the rear of the transport unit, and shall be clearly visible as shown in **Annex (1)**. If a trailer containing dangerous goods is detached from its motor vehicle during carriage of dangerous goods, orange-colored plate shall be affixed at the rear of the trailer.
- (b) **Container Marking:** Transport units carrying dangerous goods by container, placard related with dangerous goods class shall be affixed at the front, rear and on the opposite sides of containers and numbered orange plate shall be affixed on the opposite sides of containers as shown in **Annex (2)**.
- (c) **Bulk Container Marking:** Transport units carrying dangerous goods by bulk container, placard related with dangerous goods class shall be affixed at the front, rear and on the opposite sides of bulk container and numbered orange plate shall be affixed on opposite sides.

- (d) **Tank Marking:** Transport units carrying dangerous goods by tank, placard related with dangerous goods class and other marks related with the carriage of dangerous goods shall be affixed on the opposite sides and rear of the tank and numbered orange plate shall be affixed on both sides as shown in Annex (3). For multi-compartment tank, numbered orange plate and related placard shall be affixed on each compartment.
3. The specifications for the marking are as follow:
- (a) **Orange-colored Plate:** The orange-colored plate affixed at the front and rear of the transport unit shall be reflectorized as shown in Annex (4) and shall be of 40 cm length, 30 cm width and shall have a black border of 15 mm wide. Orange-colored plate may be reduced to a minimum of 30 cm length, 12 cm width and 10 mm wide for the black border according to the size of transport unit. Orange-colored plate shall resist about 15 minutes on fire and also, resist to weather condition.
- (b) **Placards for dangerous goods classes:** Placards affixed on container, bulk container and tank shall be in the form of a square set at an angle of 45° (diamond-shaped) as shown in Annex (5). The minimum dimensions shall be 250 mm x 250 mm. The line inside the edge of diamond-shaped shall be parallel and 12.5 mm from the outside of that line to the edge of the placard. The symbol and line inside the edge shall correspond in colour to the label for the class or division of the dangerous goods in question. The class or division symbol/numeral shall be positioned and sized in proportion to the label for the corresponding class or division of the dangerous goods in question. The placard shall display the number of the class or division of the dangerous goods in question for the corresponding label, in digits not less than 25 mm high. Labels shall be affixed as described in Chapter 5.2.2.2.2 of ADR 2017.
- (c) **Other Marks:** Transport units carrying dangerous goods by tank, placard related with dangerous goods class shall be affixed on the opposite sides, at the rear and other marks shall also be affixed, if necessary. The other marks include Elevated Temperature Substance Mark, Environmentally Hazardous Substance Mark, Limited Quantities Mark, Fumigation Warning Mark and Coolant/Conditioning Warning Mark as shown in Annex (6) and shall be installed as follow:

- (i) **Elevated Temperature Substance Mark:** Tank or special equipped vehicles or containers containing a substance that is carried or handed over for carriage in a liquid state at or above 100°C or in a solid state at or above 240 °C, elevated temperature mark shall be affixed on both sides and at the rear of tank or special equipped vehicles or container.
 - (ii) **Environmentally Hazardous Substance Mark:** While carrying the environmentally hazardous substances meeting the criteria of 2.2.9.1.10 in ADR by tank or container, the Environmentally Hazardous Substance Mark shall be affixed on the both sides and at the rear of tank or container.
 - (iii) **Limited Quantities (LQ) Mark:** Transport units with a maximum mass exceeding 12 tones carrying dangerous goods packed in limited quantities shall be marked the LQ mark at the front and rear of the transport unit. If dangerous goods are carried by container, LQ Mark shall be affixed on four sides of container. But, if the transport unit contains other dangerous goods in addition to the limited quantities dangerous goods, it may display the required orange-coloured plate marking only, or both the orange-coloured plate and LQ mark.
 - (iv) **Fumigation Warning Mark:** For fumigated cargo transport units (UN 3359), it is not needed to affix related placard and fumigation warning mark only shall be affixed in a location where it will be easily seen by persons opening or entering the cargo transport unit.
 - (v) **Coolant / Conditioning Warning Mark:** When carrying Unpacked Dry Ice (UN 1845) (Solid Carbon Dioxide), it is not needed to affix related placard and coolant/conditioning warning mark only shall be affixed in a location where it will be easily seen by persons opening or entering the cargo transport unit.
 - (vi) The transport units carrying UN 3359 and UN 1845 are not subject to any provision of ADR other than these of Chapter 5.5 of ADR.
- (d) **Numbered Orange Plate:** The numbered orange plate shall be reflectorized as shown in **Annex (7)** and shall be of 40 cm length, 30 cm width and have a black border of 15 mm wide. The thickness of the black horizontal line at the middle of orange plate shall be 15 mm. Hazard Identification Number shall be upper part of horizontal line and UN Number shall be lower part of numbered

orange plate. Hazard Identification Number and UN Number shall be 100 mm width and the thickness of number shall be 15 mm. The numbered orange plate shall not become detached from its mount in the event of 15 minutes' engulfment in fire and be weather – resistant. Hazard Identification Numbers on numbered orange plate are shown in **Annex (8)**. For tank vehicle or transport units which is carrying dangerous goods with UN Nos. 1202, 1203, 1223, 1268, 1863, numbered orange plate related with the highest hazard substances shall be affixed at the front and rear of the vehicle as shown in **Annex (9)**. Identification numbers for UN No. are as shown in dangerous goods List (Table A) of **Annex (2)** of Directive 10/18 issued by Road Transport Administration Department on 28 March 2018.

4. So, the above-mentioned Annex (1), (2), (3), (4), (5), (6), (7), (8) and (9) are directed emphasis on educating, giving awareness, distributing pamphlets for this regulations to domestic and cross-border transport operators, drivers and vehicle crew.
5. All the branches of Road Transport Administration Department have to reply the received and acknowledgement of this Directive. Associations have to inform transport operators and guide them as needed.
6. Ordinance No.11/17 which is stated as reference (2) is canceled by this directive.
7. Annex (1) to Annex (9) are sent through CD.

Enclosures: Annex (1) – 1 sheet
 Annex (2) – 1 sheet
 Annex (3) – 1 sheet
 Annex (4) – 1 sheet
 Annex (5) – 1 sheet
 Annex (6) – 3 sheets
 Annex (7) – 1 sheet
 Annex (8) – 3 sheets
 Annex (9) – 1 sheet

for Director General

(Htin Kyaw, Director)

1. **Head of Branches of**
Road Transport Administration Department
2. **Head of Branches of**
Transport Planning Department
3. **Chairman, Supervision Committee of Petroleum Products Importing, Storing, Transporting and Distributing Committee**
4. **Chairman, Myanmar International Freight Forwarder Associations**
5. **Chairman, Myanmar Chemical Industries Association**
6. **Chairman, Myanmar Highway Freight Transport Services Association**
7. **Chairman, Myanmar Container Trucking Association**
8. **Chairman, Myanmar Petroleum Trade Association**

CC-

Chairman, National Transport Facilitation Committee (NTFC)

Minister Office, Ministry of Transport and Communications

Minister Office, Ministry of Electricity & Energy

Minister Office, Ministry of Industry

Myanmar Police Force

Department of Environmental Conservation

Myanmar Petrol Chemical Enterprise

Directorate of Industrial Collaboration

Customs Department

Director General (Secretariat)

Deputy Director Generals (Admin, Operation)

Directors of all divisions

Chief Engineer

Deputy Directors and same level officials

Assistant Directors and same level officials

All Divisions of Head Office

Office file

Floating file



Transport Unit with Vehicle Marking (Sample)

Annex (2)

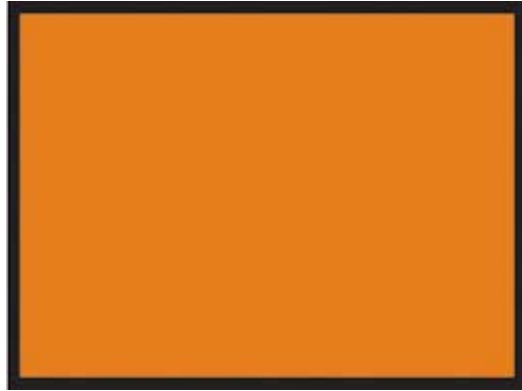


Transport Unit with Container Marking (Sample)

Annex (3)



Transport Unit with Tank Marking (Sample)

Annex (4)

Orange-colored Plate

40 cm \pm 10% x 30 cm \pm 10%;

the black border of 15 mm wide (front and rear of the vehicle)

For light vehicle; 30 cm x 12 cm ; the black border can be reduced to 10 mm wide

Annex (5)



Label related with dangerous goods class (or) Placard (Sample)

Minimum dimension - 250 mm x 250 mm

Reduce to minimum dimension - 100 mm x 100 mm

Note: Label (sample) for (9) classes of Dangerous Goods are described as Specimen Labels as in Chapter 5.2.2.2.2 of ADR 2017.

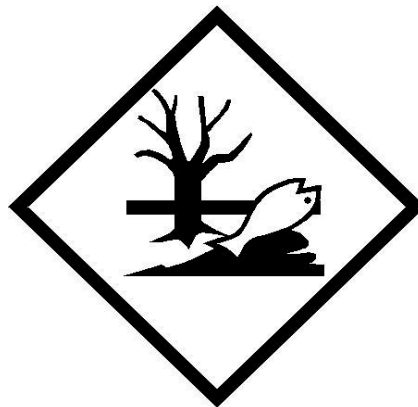
Annex (6)

Other Marks



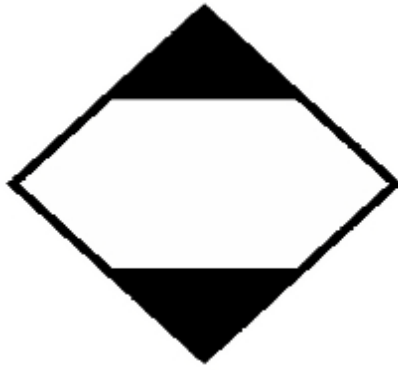
Mark for Elevated Temperature Substances

Minimum dimensions – 250 mm x 250 mm can be reduced to 100 mm



Mark for Environmentally Hazardous Substances

Minimum Dimension – 250 mm x 250 mm can be reduced to 100 mm



Mark for packages containing limited quantities (Limited Quantities (LQ) Mark)

Minimum dimensions 100 mm x 100 mm





Minimum dimensions 400 mm x 300 mm

Coolant/conditioning warning mark for vehicles and containers

Minimum dimensions 150 mm x 250 mm

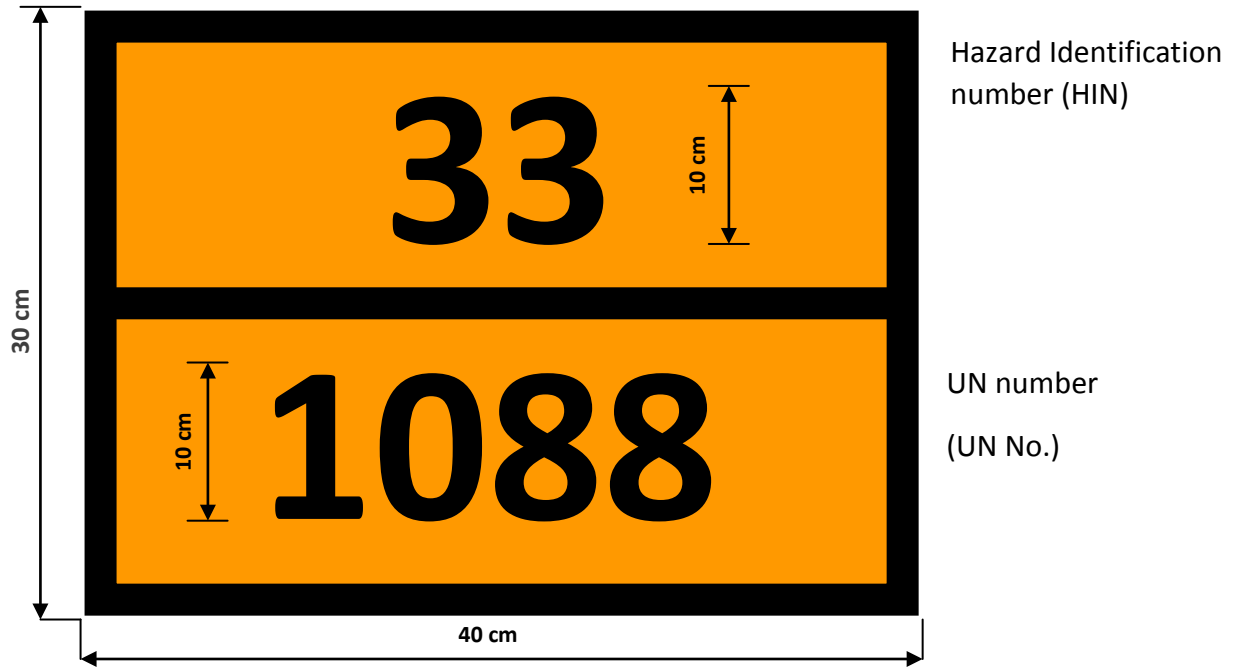
(*) Insert the name indicated in Column (2) of Table A of Dangerous Goods lists.

The lettering shall be in capitals, shall be at least 25mm high.

(**) Insert the words such as “AS COOLANT” or “AS CONDITIONER” as appropriate.

The word ‘WARNING’ shall be in red or white and be at least 25 mm high.

Annex (7)



Numbered Orange Plate (Sample)

Hazard Identification Numbers

20	asphyxiant gas or gas with no subsidiary risk
22	refrigerated liquefied gas, asphyxiant
223	refrigerated liquefied gas, flammable
225	refrigerated liquefied gas, oxidizing (fire-intensifying)
23	flammable gas
238	gas, flammable corrosive
239	flammable gas, which can spontaneously lead to violent reaction
25	oxidizing (fire-intensifying) gas
26	toxic gas
263	toxic gas, flammable
265	toxic gas, oxidizing (fire-intensifying)
268	toxic gas, corrosive
28	gas, corrosive
30	flammable liquid (flash-point between 23 °C and 60 °C, inclusive) or flammable liquid or solid in the molten state with a flash-point above 60 °C, heated to a temperature equal to or above its flash-point, or self-heating liquid
323	flammable liquid which reacts with water, emitting flammable gases
X323	flammable liquid which reacts dangerously with water, emitting flammable gases ¹
33	highly flammable liquid (flash-point below 23 °C)

¹ *Water not to be used except by approval of experts.*

- 333 pyrophoric liquid
- X333 pyrophoric liquid which reacts dangerously with water¹
- 336 highly flammable liquid, toxic
- 338 highly flammable liquid, corrosive
- X338 highly flammable liquid, corrosive, which reacts dangerously with water¹
- 339 highly flammable liquid which can spontaneously lead to violent reaction
- 36 flammable liquid (flash-point between 23 °C and 60 °C, inclusive), slightly toxic, or self-heating liquid, toxic
- 362 flammable liquid, toxic, which reacts with water, emitting flammable gases
- X362 flammable liquid toxic, which reacts dangerously with water, emitting flammable gases¹
- 368 flammable liquid, toxic, corrosive
- 38 flammable liquid (flash-point between 23 °C and 60 °C, inclusive), slightly corrosive or self-heating liquid, corrosive
- 382 flammable liquid, corrosive, which reacts with water, emitting flammable gases
- X382 flammable liquid, corrosive, which reacts dangerously with water, emitting flammable gases¹
- 39 flammable liquid, which can spontaneously lead to violent reaction
- 40 flammable solid, or self-reactive substance, or self-heating substance, or polymerizing substance
- 423 solid which reacts with water, emitting flammable gases, or flammable solid which reacts with water, emitting flammable gases or self-heating solid which reacts with water, emitting flammable gases

- X423 solid which reacts dangerously with water, emitting flammable gases, or flammable solid which reacts dangerously with water, emitting flammable gases, or self-heating solid which reacts dangerously with water, emitting flammable gases¹
- 43 spontaneously flammable (pyrophoric) solid
- X432 spontaneously flammable (pyrophoric) solid which reacts dangerously with water, emitting flammable gases¹
- 44 flammable solid, in the molten state at an elevated temperature
- 446 flammable solid, toxic, in the molten state, at an elevated temperature
- 46 flammable or self-heating solid, toxic
- 462 toxic solid which reacts with water, emitting flammable gases
- X462 solid which reacts dangerously with water, emitting toxic gases¹
- 48 flammable or self-heating solid, corrosive
- 482 corrosive solid which reacts with water, emitting flammable gases
- X482 solid which reacts dangerously with water, emitting corrosive gases¹
- 50 oxidizing (fire-intensifying) substance
- 539 flammable organic peroxide
- 55 strongly oxidizing (fire-intensifying) substance
- 556 strongly oxidizing (fire-intensifying) substance, toxic
- 558 strongly oxidizing (fire-intensifying) substance, corrosive
- 559 strongly oxidizing (fire-intensifying) substance, which can spontaneously lead to violent reaction
- 56 oxidizing substance (fire-intensifying), toxic
- 568 oxidizing substance (fire-intensifying), toxic, corrosive
- 58 oxidizing substance (fire-intensifying), corrosive

¹ *Water not to be used except by approval of experts.*

- 59 oxidizing substance (fire-intensifying) which can spontaneously lead to violent reaction
- 60 toxic or slightly toxic substance
- 606 infectious substance
- 623 toxic liquid, which reacts with water, emitting flammable gases
- 63 toxic substance, flammable (flash-point between 23 °C and 60 °C, inclusive)
- 638 toxic substance, flammable (flash-point between 23 °C and 60 °C, inclusive), corrosive
- 639 toxic substance, flammable (flash-point not above 60 °C) which can spontaneously lead to violent reaction
- 64 toxic solid, flammable or self-heating
- 642 toxic solid, which reacts with water, emitting flammable gases
- 65 toxic substance, oxidizing (fire-intensifying)
- 66 highly toxic substance
- 663 highly toxic substance, flammable (flash-point not above 60 °C)
- 664 highly toxic solid, flammable or self-heating
- 665 highly toxic substance, oxidizing (fire-intensifying)
- 668 highly toxic substance, corrosive
- X668 highly toxic substance, corrosive, which reacts dangerously with water¹
- 669 highly toxic substance which can spontaneously lead to violent reaction
- 68 toxic substance, corrosive
- 69 toxic or slightly toxic substance, which can spontaneously lead to violent reaction
- 70 radioactive material
- 768 radioactive material, toxic, corrosive

78	radioactive material, corrosive
80	corrosive or slightly corrosive substance
X80	corrosive or slightly corrosive substance, which reacts dangerously with water ¹
823	corrosive liquid which reacts with water, emitting flammable gases
83	corrosive or slightly corrosive substance, flammable (flash-point between 23 °C and 60 °C, inclusive)
X83	corrosive or slightly corrosive substance, flammable, (flash-point between 23 °C and 60 °C, inclusive), which reacts dangerously with water ¹
839	corrosive or slightly corrosive substance, flammable (flash-point between 23 °C and 60 °C inclusive) which can spontaneously lead to violent reaction
X839	corrosive or slightly corrosive substance, flammable (flash-point between 23 °C and 60 °C inclusive), which can spontaneously lead to violent reaction and which reacts dangerously with water ¹
84	corrosive solid, flammable or self-heating
842	corrosive solid which reacts with water, emitting flammable gases
85	corrosive or slightly corrosive substance, oxidizing (fire-intensifying)
856	corrosive or slightly corrosive substance, oxidizing (fire-intensifying) and toxic
86	corrosive or slightly corrosive substance, toxic
88	highly corrosive substance
X88	highly corrosive substance, which reacts dangerously with water ¹
883	highly corrosive substance, flammable (flash-point between 23 °C and 60 °C inclusive)
884	highly corrosive solid, flammable or self-heating
885	highly corrosive substance, oxidizing (fire-intensifying)

¹ *Water not to be used except by approval of experts.*

- 886 highly corrosive substance, toxic
- X886 highly corrosive substance, toxic, which reacts dangerously with water¹
- 89 corrosive or slightly corrosive substance, which can spontaneously lead to violent reaction
- 90 environmentally hazardous substance; miscellaneous dangerous substances
- 99 miscellaneous dangerous substance carried at an elevated temperature.

TABLE A
DANGEROUS GOODS LIST
(UN No.)

Republic of the Union of Myanmar

Ministry of Transport and Communications

Road Transport Administration Department (Head Office)

Nay Pyi Taw

Ref : Kaupa-339(Kha) /2018/489

Date : 27 June 2018

Directive – 13/18

Subject : Labelling of Packages according to the class of dangerous goods by Road Transport

Ref : (1) “Ordinance No.10/18” dated 28.3.2018 with reference number Kaupa-338(Kha)/2017/836 issued by Road Transport Administration Department
(2) “Ordinance No. 11/18” dated 3.5.2018 with reference number Kaupa-339 (Kha)/2018/1413 issued by Road Transport Administration Department
(3) “Ordinance No.12/17” dated 2.5.2017 with reference number Kaupa-339 (Kha)2017/899 issued by Road Transport Administration Department

1. Ordinance for Classification of dangerous goods according to Table A and B of Chapter 3.2 of ADR and regulations for movement of dangerous goods by road was issued by reference letter No.(1) and Directive for vehicle marking, container marking and tank marking for vehicle carried dangerous goods were issued by reference letter No.(2).

2. Transport Operators shall display label for packaging of dangerous goods as shown in **Annex 1**, according to the classification of dangerous goods which was issued by reference letter No. (1).

3. The label on package of dangerous goods for transport shall be in the form of a square set at an angle of 45° (diamond-shaped). The minimum dimensions shall be 100 mm x 100 mm. The minimum width of the line inside the edge forming the diamond shall be 2 mm. The line inside the edge shall be parallel and 5mm from the outside of that line to the edge of the label. The line inside the edge of the diamond on the upper half of the label shall be the same colour as the symbol and the line inside the edge on the lower half of the label shall be the same colour as the class or division number in the bottom corner.

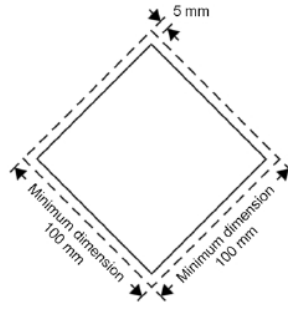


Figure 5.2.2.2.1.1

4. If different types of dangerous goods are packing in the same package, respective Label and Mark of these dangerous goods shall be displayed respectively. For IBCs (Intermediate Bulk Container), Label and Mark shall be affixed on two opposite sides of the containers. For UN 1950 (AEROSOLS), the word “AEROSOLS” shall be displayed. Environmentally Hazardous Substances like UN 3077 and UN 3082, Environmentally Hazardous Substance Mark shall be affixed. In the situation, dangerous goods which are tightly packed by thin plastic and cannot be seen inside, the word “OVERPACK” shall be affixed with Label and Mark according to UN number. For Gas Cylinder which is carrying Gas of Class-2, Label shall be affixed according to column 5 of dangerous goods List (Table A).

5. The Label shall be right by the classification of goods and packaging. If the Labels are more than one, they are placed in parallel. If it is not convenient to place the Label, hang the tag or show it in a sustainable way. For each UN number, Labels are shown according to Column 5 of dangerous goods List (Table A) of ADR.

6. Transport Unit owners shall transport the dangerous goods that are conformed with the above-mentioned paragraph (2), (3) and (4).

7. All concerned parties are directed to pay attention for the awareness and obligations of the International Transport Operators, drivers and vehicle crew by educating, announcing and distributing the pamphlets.

8. All the branches of Road Transport Administration Department have to reply the receipt and acknowledgement of this Directive. Associations have to inform transport operators and guide them as needed.

9. Directive 12/17 which is stated as reference (3) is cancelled by this Directive.

10. Annex 1 is sent through CD.

Enclosure: (1) CD

for Director General

(Htin Kyaw, Director)

1. **Head of Branches of**
Road Transport Administration Department
2. **Head of Branches of**
Transport Planning Department
3. **Chairman, Supervision Committee of Petroleum Products Importing, Storing, Transporting and Distributing Committee**
4. **Chairman, Myanmar International Freight Forwarders' Association**
5. **Chairman, Myanmar Chemical Industries Association**
6. **Chairman, Myanmar Highway Freight Transport Services Association**
7. **Chairman, Myanmar Container Trucking Association**
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CC-

Chairman, National Transport Facilitation Committee (NTFC)

Minister Office, Ministry of Transport and Communications

Minister Office, Ministry of Electricity & Energy

Minister Office, Ministry of Industry

Myanmar Police Force

Department of Fire Service

Department of Environmental Conservation

Myanmar Petrol Chemical Enterprise

Directorate of Industrial Collaboration

Customs Department

Director General (Secretariat Office)

Deputy Director General

Directors of all divisions

Chief Engineer

Deputy Directors, Assistant Directors and all officials of same level

All divisions of Head Office

Office File

Floating file

Labels for 9 Classes of dangerous goods**1. Class 1 Explosives**

Divisions 1.1, 1.2 and 1.3

Symbol (Explosive bomb) – Black; Background – Orange;

Figure “1” in bottom corner



(No.1.4)

Division 1.4



(No.1.5)

Division 1.5



(No.1.6)

Division 1.6

Background – orange;

Figures – black;

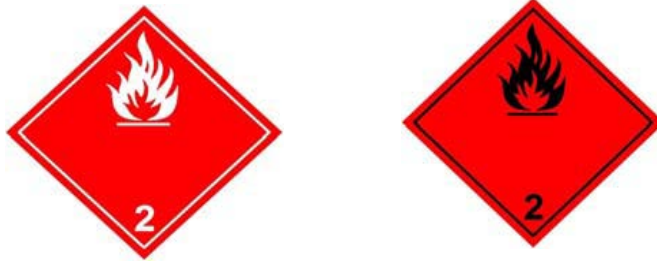
Numerals shall be about 30 mm in height and be about 5 mm thick (for a label measuring 100 mm x 100 mm);

Figure “1” in bottom corner

2. Class 2 Gases

(a) Division 2.1

Flammable gases



(No.2.1)

Symbol: Flame;

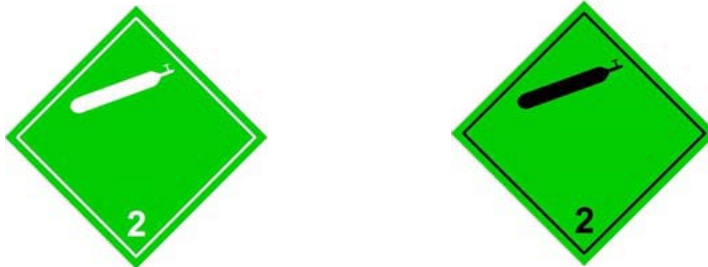
Color of flame: black or white;

Background: red;

Figure “2” in bottom corner

(b) Division 2.2

Non-flammable, non-toxic gases



(No. 2.2)

Symbol: gas cylinder;

Color: black or white;

Background: green;

Figure “2” in bottom corner

(c) Division 2.3

Toxic gases



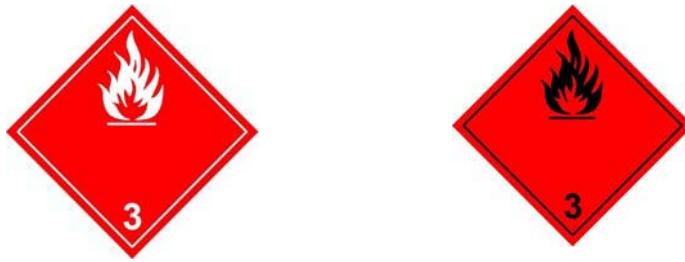
(No.2.3)

Symbol: skull and crossbones;

Color: black;

Background: white;

Figure “2” in bottom corner

3. **Class 3****Flammable liquids and liquid desensitized explosives**

(No.3)

Symbol: flame;
 Flame Color: white or black;
 Background: red;
 Figure “3” in bottom corner

4. **Class 4**(a) **Division 4.1:****Flammable solids, self-reactive substances, and solid desensitized explosives**

(No.4.1)

Symbol: flame;
 Flame Color: black;
 Background: white with seven vertical red stripes;
 Figure “4” in bottom corner

(b) **Division 4.2:****Substances liable to spontaneous combustion**

(No.4.2)

Symbol: flame;
 Flame Color: black;
 Background: upper half white, lower half red;
 Figure “4” in bottom corner

(c) **Division 4.3: Substances which in contact with water emit flammable gases**

(No.4.3)

Symbol: flame;
 Figure Color: white or black;
 Background: blue;
 Figure "4" in bottom corner

5. Class 5(a) **Division 5.1: Oxidizing Substances**

(No.5.1)

Symbol: flame over circle;
 Flame Color: black;
 Background : yellow;
 Figure "5.1" in bottom corner

(b) **Division 5.2: Organic peroxides**

(No.5.2)

Symbol: flame;
 Flame Color: white or black;
 Background: upper half red, lower half yellow;
 Figure "5.2" in bottom corner

6. Class 6

(a) Division 6.1: Toxic substances



(No. 6.1)

Symbol: skull and crossbones;

Color: black;

Background: white;

Figure “6” in bottom corner

(b) Division 6.2: Infectious substances



(No.6.2)

The lower half of the label may bear the inscriptions: “INFECTIOUS SUBSTANCE” and
“In the case of damage or leakage immediately notify Public Health Authority”

(Eg. Department of Medical Services in Myanmar)

Symbol: three crescents superimposed on a circle and inscriptions;

Color: black;

Background: white;

Figure “6” in bottom corner

7. Class 7

Radioactive Material



(No.7 A)

Category 1: White;

Symbol: Trefoil;

Color: black;

Background: white, Text (mandatory): black in lower half of label;

Eg. 'RADIOACTIVE'

'CONTENTS'

'ACTIVITY....'

One red bar shall follow the word 'RADIOACTIVE':

Figure "7" in bottom corner



(No.7 B)



(No.7 C)

Category II: Yellow

Category III: Yellow

Symbol: Trefoil;

Color: black;

Background: upper half yellow with white border, lower half white; Text (mandatory): black in lower half of label:

Eg. 'RADIOACTIVE'

'CONTENTS'

'ACTIVITY.....'

In a black outlined rectangular box: 'TRANSPORT INDEX';

Two red vertical bars shall follow the word 'RADIOACTIVE' in (No.7 B);

Three red vertical bars shall follow the word 'RADIOACTIVE' in (No.7 C);

Figure "7" in bottom corner



(No.7E)

Class 7 fissile material

Background: White;

Text (mandatory): black in upper half of label 'FISSILE';

In a black outlined box in the lower half of the label: 'CRITICALITY SAFETY INDEX'

Figure "7" in bottom corner

8. Class 8**Corrosive substance**

(No. 8)

Symbol – liquids, spilling from two glass vessels and attacking; a hand and a metal color
:black;

Background: upper half white; lower half black with white border;

Figure "8" in bottom corner

9. Class 9**Miscellaneous dangerous substances and articles**

(No.9)

Symbol: Seven vertical stripes in upper half;

Color: black;

Background: white;

Figure "9" in bottom corner

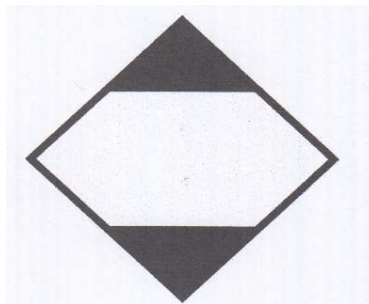
Additional Marks

1. Mark for Environmentally Hazardous Substances



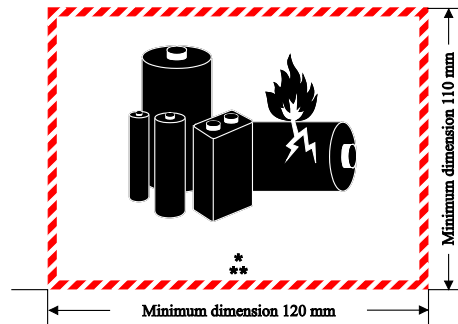
The mark shall be in the form of a square set at an angle of 45° (diamond-shaped). The symbol (fish and tree) shall be black on white or suitable contrasting background. The minimum dimensions shall be 100 mm x 100 mm and the minimum width of the line forming the diamond shall be 2 mm. If the size of the package so requires, the dimensions/line thickness may be reduced, provided the Mark remains clearly visible.

2. Limited Quantities (LQ) Mark



The mark shall be in the form of a square set at an angle of 45° (diamond-shaped). The top and bottom portions and the surrounding lines shall be black. The centre area shall be white or a suitable contrasting background. The minimum dimensions shall be 100 mm x 100 mm and the minimum width of the line forming the diamond shall be 2 mm. If the size of the package so requires, the minimum outer dimensions may be reduced to be not less than 50 mm x 50 mm provided the mark remains clearly visible. The minimum width of the line forming the diamond may be reduced to a minimum of 1 mm.

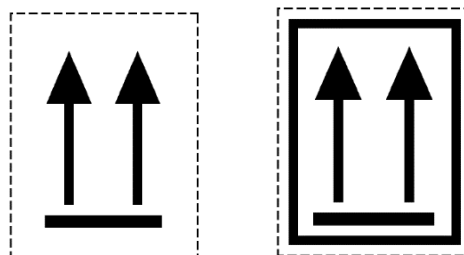
3. Lithium Battery Mark



The mark shall be in the form of a rectangle as shown in above figure. The mark shall be with hatched edging. The dimensions shall be a minimum of 120 mm wide x 110 mm high and the minimum width of the hatching shall be 5 mm. The symbol (group of batteries, one damaged and emitting flame, above the UN number for lithium ion or lithium metal batteries or cells) shall be black on white. The hatching shall be red. If the size of the package so requires, the dimensions/line thickness may be reduced to not less than 105 mm wide x 74 mm high. Where dimensions are not specified, all features shall be in approximate proportion to those shown.

The mark shall be one packages containing lithium cells or batteries prepared in accordance with special provision 188. Where the lithium cells or batteries are contained in, or packed with, equipment, the UN number preceded by the letters “UN” as appropriate shall be indicated.

4. Orientation Arrows Mark



The orientation arrows shall appear on two opposite vertical sides of the package with the arrows pointing in the correct upright direction. They shall be rectangular and of a size that is clearly visible commensurate with the size of the package. Depicting a rectangular border around the arrows is optional. The arrows mark shall affix except as provided in 5.2.1.10.2 of ADR:

- (1) combination packagings having inner packagings containing liquids:
- (2) single packagings fitted with vents; and
- (3) cryogenic receptacles intended for the carriage of refrigerated liquefied gases.

Republic of the Union of Myanmar
Ministry of Transport and Communications
Road Transport Administration Department (Head Office)

Nay Pyi Taw

Ref : Kaupa-339(Kha)/2018/841

Date : 26 December 2018

Directive – 20/18

Subject : Loading and Unloading of Dangerous Goods by Road Transport

Ref : (1) “Ordinance No.10/18” dated 28.3.2018 with reference number Kaupa-338 (Kha)/2017/836 issued by Road Transport Administration Department

(2) “Ordinance No.11/18” dated 3.5.2018 with reference number Kaupa-339 (Kha)/2018/1413 issued by Road Transport Administration Department

(3) “Ordinance No. 13/18” dated 27.6.2017 with reference number Kaupa-339 (Kha)/2018/489 issued by Road Transport Administration Department

(4) “Ordinance No. 16/17” dated 1.6.2017 with reference number Kaupa-339 (Kha)/2017/1361 issued by Road Transport Administration Department

1. Directives for classification of dangerous goods according to Table A and B of Chapter (3.2) of ADR and regulations for movement of dangerous goods by road was issued by reference letter No.(1), Directive for vehicle marking, container marking and tank marking for vehicle which carried dangerous goods was issued by reference letter No.(2), and Directive for labelling of packages according to the class of dangerous goods by road transport was issued by reference letter No.(3), respectively.

2. Transport operators shall follow the requirements for loading and unloading of dangerous goods as shown in **Annex (1)**, according to the classification of dangerous goods which was issued by reference letter No.(1).

3. So, the requirements mentioned in **Annex (1)** are directed emphasis on educating, giving awareness, distributing pamphlets for this regulation to domestic and cross-border transport operators, drivers and vehicle crew.

4. All the branches of Road Transport Administration Department have to reply the receipt and acknowledgement of this Directive. Associations have to inform transport operators and guide them as needed.

5. Ordinance No.16/17 which is stated as reference (4) is cancelled by this directive.

Enclosure: Annex 1 - (5) sheets

for Director General
(Yi Yi Myint, Director)

1. **Head of Branches of**
2. **Road Transport Administration Department**
3. **Head of Branches of**
4. **Transport Planning Department**
5. **Chairman, Supervision Committee of Petroleum Products Importing, Storing, Transporting and Distributing Committee**
6. **Chairman, Myanmar International Freight Forwarder Associations**
7. **Chairman, Myanmar Chemical Industries Association**
8. **Chairman, Myanmar Highway Freight Transport Services Association**
9. **Chairman, Myanmar Container Trucking Association**
10. **Chairman, Myanmar Petroleum Trade Association**

CC-

Chairman, National Transport Facilitation Committee (NTFC)

Ministry of Transport and Communications

Myanmar Police Force

Department of Environmental Conservation

Myanmar Petrol Chemical Enterprise

Directorate of Industrial Collaboration

Customs Department

Director General (Secretariat)

Deputy Director Generals (Admin, Operation)

Directors of all divisions

Chief Engineer

Deputy Directors, Assistant Directors and all officials of same level

All Divisions of Head Office

Office file

Floating file

Loading and Unloading Procedures for transport of dangerous goods

Loader

“Loader” means a person who takes part in the process of loading dangerous goods on vehicle, tank or container which are intended to carry dangerous goods.

Unloader

“Unloader” means a person who removes/ unloads or discharges the dangerous goods from the vehicle, tank or container.

Obligations followed by Loader

1. The loader shall carry out the loading process only if when the documents, vehicles and goods loaded on board, certificate related to driver, safety tools are met with the provisions concerning loading and handling.
2. The dangerous goods which are permitted by National Transport Facilitation Committee (NTFC) shall be transported.
3. The loader shall check whether the package is damaged or not. If the package is unsafe or damaged, it shall not be allowed to load on board.
4. After loading the goods in container, the loader shall follow the Directive issued by Road Transport Administration Department on 3 May 2018 with reference letter no: Kaupa-339(Kha)/2018/1413.
5. The dangerous goods shall not be loaded together with foodstuffs, other articles of consumption or animal feeds.
6. The loader shall check the following:
 - (a) Whether the pointing arrow marks on the packages are at their appropriate positions or not;
 - (b) Whether the goods which contain liquid are placed under the dry goods or not;
 - (c) Whether the goods are loaded as the specified weight or not;
 - (d) Whether the goods are kept by partition or not.

Obligations followed by Unloader

1. Unloader shall ascertain that the correct goods are unloaded by checking the relevant information on the transport document.

2. While unloading, the unloader shall check whether the goods loaded on board are in a danger position (eg. packages are worn out or not). If the situation is in danger, unloading shall be suspended until the appropriate safety measures have been taken.
3. The unloader shall comply with all requirements concerning unloading and handling.
4. After unloading, any dangerous residues which have adhered to the inside of the tank, vehicle or container must be removed promptly. And the unloader shall ensure the closure of valves and check the openings.
5. After only the unloading and cleaning have finished completely, the Danger Markings which are on the vehicle, container and tank shall be taken off.
6. If the unloader makes use the services of other participants (cleaner, decontamination facility, etc.), makes use of the services of other participants (cleaner, decontamination facility, etc.), he shall take appropriate measures to ensure that the requirements of ADR have been complied with.
7. The goods which are not included in unloading process shall be in a safe condition too.

Obligations followed by Drivers and Vehicle Crew

1. Other than drivers and vehicle crew, any passengers shall be carried in transport units while carrying dangerous goods.
2. Drivers and vehicle crew shall know how to use the fire-fighting appliances.
3. Driver/s or vehicle crew shall not open the package containing dangerous goods.
4. After using the portable lighting apparatus, it shall not be put any metal surface liable to produce sparks.
5. Smoking shall be prohibited during loading or unloading time and inside the vehicles. The use of electronic cigarettes and similar devices shall also be prohibited.
6. Except when the engine does not stop if necessary (or) the laws of the country in which the vehicle is operating permit such use, the engine shall be shut off during loading and unloading operations.
7. Vehicle carrying dangerous goods shall apply the use of parking brake when the engine stops.
8. Trailers that do not have the braking device shall have at least one wheel chock. In the case of a transport unit equipped with an anti-lock braking system, consisting of a motor

vehicle and trailer with a maximum weight exceeding 3.5 tonnes, the trailer shall be connecting with the towing vehicle at all times during carriage.

Requirements concerning the supervision of vehicles

1. Vehicles carrying explosive substances in Class 1 shall be supervised or alternatively may be parked and then are not needed to be supervised in a secure depot or secure warehouse. The places where are suitable with the following situations can be parked:

- (a) A vehicle park supervised by an attendant who has been notified of the nature of the load and the whereabouts of the driver;
- (b) A public or private vehicle park where the vehicle is not likely to suffer damage from other vehicles; or
- (c) A suitable open space separated from the public highway and from dwellings, where the public does not normally pass or assemble or reside.

2. Loaded Mobile Explosive Manufacturing Units (MEMUs) shall be parked in secure warehouses. Empty MEMUs are exempted from the above-mentioned requirements.

Requirements concerning the carriage of explosive substances and articles (Class-1)

1. Driver shall attend the specialization training course totally or partially.
2. Transport operator shall carry an official letter on board that guaranteed for fully cost of loss or damage in the event of accident unexpectedly.
3. Loading or unloading of substances shall not take place in a public place without getting special permission from the competent authorities.
4. It needs to inform the relevant authority prior to loading and unloading.
5. If, for any reason, handling operations have to be carried out in a public place, then substances and articles of different kinds shall be separated according labels.
6. When vehicles carrying substances and articles of Class 1 are obliged to stop for loading or unloading operations in a public place, a distance of at least 50 m shall be maintained between the stationary vehicles. This distance shall not apply to vehicles belonging to the same transport unit.
7. When vehicles carrying substances and articles of Class 1 travel in convoy, a distance of not less than 50m shall be maintained between each transport unit. The competent authority may lay down rules for the order or composition of convoys.

8. When mixed load of Class 1 substances and articles in a vehicle, the vehicle shall be supervised at all times in order to prevent any malicious act and to alert the driver and the competent authorities in the event of loss or fire. Doors and covers of the vehicles shall not be opened except the time of during loading or unloading.

Requirements concerning the carriage of Flammable Liquids and Gases

1. Vehicles carrying gases or liquids of Class 2 not at least more than 60°C cannot be entered by holding portable lighting apparatus except from those so designed and constructed that they cannot ignite.
2. The operation of combustion heaters is forbidden during loading and unloading.
3. A good electrical connection from the vehicle chassis to earth shall be established before tanks are filled or emptied. In addition, the rate of filling shall be limited.