ANNEX VII: RELATION BETWEEN TRANSPORT AND CLP CLASSIFICATION REGARDING PHYSICAL HAZARDS

Table VII-a on physical hazards only, provided in this annex, contains additional information on transport classifications in relation to CLP classifications that could be of added value. However, these comparisons have certain restrictions with regard to their applicability. In particular, the area of applicability of the transport regulation is different from the CLP Regulation (ADR 49 countries, IMDG-Code, ICAO-TI international regulations). Therefore, the table should be used as reference for deriving CLP classifications and not vice versa.

The transport classification of named substances or mixtures in the transport regulations reflects the transport conditions and therefore were not adapted to take into account the GHS criteria. The transport classifications may be based on experience or certain events that are specific to transport. The transport classification of named substances or mixtures is legally binding for transport and should not be used to derive a CLP classification without an expert review.

The transport regulations include the concept of precedence of hazards which guarantees that information on the most dangerous hazards is communicated with precedence. CLP does not apply a precedence of hazards and therefore substances or mixtures might need to be classified in additional hazard classes under CLP, which in the transport classification are allocated and noted under the respective UN-Number (giving information on subsidiary risks, appropriate packaging and transport conditions).

It needs to be noted that a substance may have more than one entry in the Dangerous Goods List. These are usually within the same class, but transport conditions are different because of different severity of the hazard for different concentrations of this substance.

The following table refers only to physical hazards, as health hazards are not harmonised regarding cut-off values, and/or allowed methods.

Table VII-a Relation between transport and CLP classifications regarding physical hazards.

⚠ (NOTE that within transport, the term 'substances' covers also mixtures in CLP terms.)

Transport classification		Physical state	CLP-classification		Remarks
Transport class and (sub)division (if applicable)	Packing group, division, type, group or code		Hazard class	Hazard category, division, type or group	
Class 1	Division 1.1 Division 1.2 Division 1.3 Division 1.4 Division 1.5 Division 1.6	Liquid or solid	Explosives	Division 1.1 Division 1.2 Division 1.3 Division 1.4 Division 1.5 Division 1.6	Matching criteria. However, if explosives are un-packed or repacked, they have to be assigned to division 1.1 unless the hazard is shown to

					correspond to one of the other divisions.
Class 2* – Gases	1 Compressed gas	Gaseous	Gases under pressure	Compressed gas	A correspondence only applies to the form in which the gas is transported. If it is used in a different form, then the classification has to be amended.
	2 Liquefied gas.	Gaseous		Liquefied gas.	
	3 Refrigerated liquefied gas	Gaseous		Refrigerated liquefied gas	
	4 Dissolved gas	Gaseous		Dissolved gas	Matching criteria with 2.5. Note: Gases may be packaged in other forms such as "chemical under pressure" or "adsorbed gases" that are not considered in the GHS/CLP.
	5 Aerosol dispensers, Class 2.1 Class 2.2	Not relevant (Articles)	Aerosols	Category 1 Category 2 Category 3	The transport classification does not differentiate between Aerosols Category 1 and 2 (both are classified as class 2.1)
	6 Other articles containing gas under pressure	Gaseous	Flammable gases	Category 1	
	7 Non-pressurised gases subject to special requirements	Gaseous	Oxidising gases	Category 1	
	8 Chemicals under pressure***	Not relevant			
	9 Adsorbed gas	Gaseous			
Class 3	Packing group I	Liquid	Flammable liquid	Category 1	
	Packing group II	Liquid	Flammable liquid	Category 2	

	Packing group III	Liquid	Flammable liquid	Category 3	
Class 4.1	Types B-F	Solid or liquid	Self-reactive substances	Types B-F	
Class 4.1 (solid desensitized explosives)	Packing group I	Solid	Solid desensitized explosives		
Class 4.1 (only readily combustible solids)	Packing group II	Solid	Flammable solids	Category 1	
Class 4.1 (only readily combustible solids)	Packing group III	Solid	Flammable solids	Category 2	
Class 4.2 Pyrophoric substances	Packing group I	Liquid	Pyrophoric liquids	Category 1	
		Solid	Pyrophoric solids	Category 1	
Class 4.2	Packing group II	Solid	Self-heating substances and mixtures	Category 1	
Class 4.2	Packing group III	Solid	Self-heating substances and mixtures	Category 2	
Class 4.3	Packing group I Packing group II Packing group III	Liquid or solid	Substances which in contact with water emit flammable gases	Category 1 Category 2 Category 3	
Class 5.1	Packing group I Packing group II Packing group III	Solid	Oxidising solid	Category 1 Category 2 Category 3	
Class 5.1	Packing group I Packing group II Packing group III	Liquid	Oxidising liquid	Category 1 Category 2 Category 3	
Class 5.2	Types B-F	Solid or liquid	Organic peroxides	Types B-F	

Class 8	Packing group III	Liquid or solid	Corrosive to metals	Category 1	Applies only when the substance or mixture is not classified as corrosive to skin and/or eye.

(*) Substances and articles (except aerosols and chemicals under pressure) of Class 2 are assigned to one of the following transport groups according to their hazardous properties, as follows: A asphyxiant, O oxidising, F flammable, T toxic, TF toxic, flammable, TC toxic corrosive, TO toxic, oxidising, TFC toxic, flammable, corrosive, TOC toxic, oxidising, corrosive

(**) Aerosols are assigned to one of the following transport groups according to their hazardous properties, as follows: A asphyxiant, O oxidising, F flammable, T toxic, C corrosive, CO corrosive, oxidising, FC flammable, corrosive, TF toxic, flammable, TC toxic corrosive, TO toxic, oxidising, TFC toxic, flammable, corrosive, TOC toxic, oxidising, corrosive

(***) Chemicals under pressure are assigned to one of the following transport groups according to their hazardous properties, as follows: A asphyxiant, F flammable, T toxic, C corrosive, FC flammable, corrosive, TF toxic, flammable,