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**Committee of Experts on the Transport of Dangerous Goods  
 and on the Globally Harmonized System of Classification  
 and Labelling of Chemicals**

Sub-Committee of Experts on the Transport of Dangerous Goods

**Report of the Sub-Committee of Experts on the Transport of  
 Dangerous Goods on its forty-ninth session**

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**Addendum**

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## Annex I

### Draft amendments to the 6th revised edition of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.6)

1.1.2 Amend the second sentence to read as follows: “It therefore assumes technical competence on the part of the testing body.”

*(Reference document: informal document INF.66, annex 3, amendment 5)*

11.5.1.2.1 (d), 12.5.1.2.1 (d), 18.6.1.2.1 (d) et 25.4.1.2.1 (d) Replace «30 ± 3 MPa» by «29 MPa ± 4 MPa»

*(Reference document: informal document INF.66, annex 3, amendments 1 à 4)*

[33.2.1.4.4.1 Amend the last sentence to read as follows: “Powders of metals or metal alloys should be classified when they can be ignited and the reaction spreads over the whole length (100 mm) of the sample in 10 minutes or less.”].

[33.2.1.4.4.2 Amend the last sentence to read as follows: “Packing group II should be assigned to powders of metals or metal alloys if the zone of reaction spreads over the whole length (100 mm) of the sample in five minutes or less.”].

[33.2.1.4.4.3 Amend the last sentence to read as follows: “Packing group III should be assigned to metal powders if the reaction spreads over the whole length (100 mm) of the sample in more than five minutes but not more than ten minutes.”].

*(Reference document: ST/SG/AC.10/C.3/2016/5 as amended)*

38.3.2.1 At the end, add the new following sentence: “A cell or battery that is an integral part of the equipment it is intended to power that is transported only when installed in the equipment, may be tested in accordance with the applicable tests when installed in the equipment.”

*(Reference document: ST/SG/AC.10/C.3/2016/46, proposal 5)*

38.3.2.3 Amend the definition of “Disassembly” to read as follows:

“Disassembly means a rupture of the cell or battery case where solid components are ejected.

**NOTE:** *During cell or component cell testing, ejection of internal components is acceptable. Energy of ejected components shall be limited and can be measured as follows:*

(a) *It will not penetrate a wire mesh screen (annealed aluminium wire with a diameter of 0.25 mm and grid density of 6 to 7 wires per cm) placed 25 cm away from the cell; or*

(b) *It can be measured by a method demonstrated to be equivalent to the one described in sub-paragraph (a) above.”*

*(Reference document: ST/SG/AC.10/C.3/2016/46, proposal 2)*

38.3.3 (b) In (i), replace “ten” by “five”. Add a new paragraph (ii) to read as follows and renumber the following paragraphs consequently: “Five cells after 25 cycles ending in fully charged states;”. In paragraph (iv) (previously (iii)), replace “50” by “25”.

38.3.3 (c) In paragraph (iii), after “rated capacity” add “and five cells after 25 cycles ending in fully charged states;”. In paragraph (iv), after “rated capacity” add “and five cells after 25 cycles ending in fully charged states.”.

38.3.3 (d) In paragraph (ii), replace “50” by “25”.

38.3.3 (e) In paragraphs (v) and (vi), replace “50” by “25”.

(Reference document: ST/SG/AC.10/C.3/2016/46, proposal 4)

38.3.3 Add the following new 38.3.3.1

“38.3.3.1 Provisions 38.3.2.1 and 38.3.3 are summarized in the following table

**Table 38.3.2: Summary table of required tests for primary cells and batteries**

Primary cells and batteries											
		T.1	T.2	T.3	T.4	T.5	T.6	T.7	T.8	Sum <sup>c</sup>	
Cells not transported separately	undischarged state						5			20	
	fully discharged state						5		10		
Cells	undischarged state	10					5				40
	fully discharged state	10					5		10		
Single cell batteries <sup>a</sup>	undischarged state	10					5				40
	fully discharged state	10					5		10		
Small batteries	undischarged state	4									8
	fully discharged state	4									
Large Batteries	undischarged state	4									8
	fully discharged state	4									
Batteries assembled with tested batteries ≤ 500 g Li	undischarged state			1						1	
Batteries assembled with tested batteries > 500 g <sup>b</sup> Li										0	

<sup>a</sup> A single cell battery containing one tested cell does not require testing unless a change in cell design could result in the failure of any test.

<sup>b</sup> If the assembled battery is of a type that has been verified as preventing:

- (i) Overcharge;
- (ii) Short circuits; and
- (iii) Over discharge between the batteries.

<sup>c</sup> The sum represents the number of tests required, not the number of cells or batteries tested.

**Table 38.3.3: Summary table of required tests for rechargeable cells and batteries**

Rechargeable cells and batteries											
		T.1	T.2	T.3	T.4	T.5	T.6	T.7 <sup>a</sup>	T.8	Sum <sup>d</sup>	
Cells not transported separately from a battery	first cycle, 50% charged state						5			30	
	25th cycle, 50% charged state						5				
	first cycle, fully discharged state								10		
	25th cycle, fully discharged state								10		
Cells	first cycle, fully charged state	5									40
	25th cycle, fully charged state	5									
	first cycle, 50% charged state						5				
	25th cycle, 50% charged state						5				
	first cycle, fully discharged state								10		
	25th cycle, fully discharged state								10		
Single cell batteries <sup>b</sup>	first cycle, fully charged state	5						4			48
	25th cycle, fully charged state	5									
	first cycle, 50% charged state						5				
	25th cycle, 50% charged state						5				
	25th cycle, fully charged state							4			
	first cycle, fully discharged state								10		
	25th cycle, fully discharged state								10		
Small batteries	first cycle, fully charged state	4						4		16	
	25th cycle, fully charged state	4						4			
Large batteries	first cycle, fully charged state	2						2		8	
	25th cycle, fully charged state	2						2			
Batteries assembled with tested batteries ≤ 6 200 Wh or ≤500g Li	fully charged state			1				1		2	
Batteries assembled with tested batteries > 6 200 Wh or >500g Li <sup>c</sup>										0	

<sup>a</sup> Batteries or single cell batteries not equipped with battery overcharge protection that are designed for use only as a component in another battery or in equipment, which affords such protection, are not subject to the requirements of this test;

<sup>b</sup> Except for the T.7 Overcharge test, a single cell battery containing one tested cell does not require testing unless a change in cell design could result in the failure of any test;

<sup>c</sup> *If the assembled battery is of a type that has been verified as preventing:*

- (i) Overcharge;*
- (ii) Short circuits; and*
- (iii) Over discharge between the batteries.*

<sup>d</sup> *the sum represents the number of tests required, not the number of cells or batteries tested.*

*(Reference document: ST/SG/AC.10/C.3/2016/46, proposal 3, option 1 as amended in informal document INF.70 as amended)*

51.2.2 At the end of the sentence, before the indents, add “, in that state”.

51.2.2 (a) Amend to read as follows:

“(a) They are intended to produce a practical explosive or pyrotechnic effect;”.

51.2.2 (b) Replace “or their corrected burning” by “or the corrected burning”.

51.2.2 (c) Replace “Their exothermic” by “The exothermic”.

*(Reference document: informal Document INF.66, annex 3, amendment 7)*

Appendix 6, Section 2.3 Amend to read as follows:

“2.3 The remarks 1.1.2 from section 1 "General introduction" are emphasized that technical competence on the part of the testing body is assumed.”.

*(Reference document: informal Document INF.66, annex 3, amendment 6)*

**In document ST/SG/AC.10/C.3/96/Add.1**, annex I, appendix 7, delete the brackets.

## Annex II

### **Draft amendments to the nineteenth revised edition of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations (ST/SG/AC.10/1/Rev.19)**

#### **Recommendations**

Paragraph 6 In the first sentence, replace “risk” by “hazard”.

Paragraph 11 In the first sentence, replace “risk” by “hazard”.

Paragraph 12 In the first sentence, replace “potential risk” by “[potential] hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

#### **Chapter 1.4**

1.4.3.1.5 In the first sentence, replace “subsidiary risks” by “subsidiary hazards”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

[1.4.3.2.1 At the end, insert the following note between square brackets:

*“NOTE: In addition to the security provisions of these Regulations, competent authorities may implement further security provisions for reasons other than safety of dangerous goods during transport. In order to not impede international and multimodal transport by different explosives security markings, it is recommended that such markings be formatted consistent with an internationally harmonized standard (e.g. European Union Commission Directive 2008/43/EC).”]*

(Reference document: informal document INF.67)

#### **Chapter 1.5**

Figure 1, 1.5.2, Replace “subsidiary risk(s)” by “subsidiary hazard(s)”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

1.5.5.1 In the first sentence, replace “subsidiary risk” by “subsidiary hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

#### **Chapter 2.0**

2.0.0.2 In the second indent, replace “risk(s)” by “hazard(s)”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

2.0.1.5 In the end of the last sentence, replace “risk(s)” by “hazard(s)”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

2.0.1.6 In the end of the last sentence, replace “risk(s)” by “hazard(s)”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

2.0.2.2 In the second paragraph, replace “risk(s)” by “hazard(s)”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

2.0.2.5 (c) Replace “risk(s)” by “hazard(s)”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.0.2.9 At the end, replace “risk(s)” by “hazard(s)”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.0.3.1 In the first sentence, replace “one risk” by “one hazard”. In the second sentence, replace “multiple risks” by “multiple hazards”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.0.3.2 In the first sentence, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 2.1**

2.1.1.4 (f) In the Note, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.1.2.1.1 Replace “risk” by “hazard”, in the Table for Compatibility Group L.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.1.3.1.2 (c) In the Note, replace “risk” by “hazard” twice.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.1.3.6.3 In the last sentence, replace “risk(s)” by “hazard(s)”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.1.3.6.4 In Note 2, at the end of the sentence, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 2.2**

2.2.2.1 (c) In the first sentence, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.2.3 (c) In the first sentence, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 2.3**

2.3.2.1 Replace “risk” by “hazard” (twice).

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.3.2.1.1 Replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.3.2.1.2 Replace “risk(s)” by “hazard(s)” twice.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 2.4**

In the Introductory notes, in Note 3, replace “additional subsidiary risk” by “additional subsidiary hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.4.2.3.2.2 At the end of the paragraph, replace “subsidiary risk(s)” by “subsidiary hazard(s)”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.4.2.3.2.3 In the table, under Remarks, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.4.2.3.3.2 (b) In the first sentence, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.4.2.3.3.2 (c) In the first sentence, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 2.5**

2.5.2.1.2 Replace “risks” by “hazards”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.5.3.2.3 In the second sentence, replace “risks” by “hazards”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.5.3.2.4 In the Table header, last column, replace “risks” by “hazards”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.5.3.2.4 In Table Notes 3, 13, 18 and 27, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.5.3.3.2 (b) In the first sentence, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.5.3.3.2 (c) Replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 2.6**

2.6.2.2.1 (a), (b) and (c) Replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.6.2.4.1 In the second sentence, replace “risks” by “hazards”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

2.6.2.4.3 Replace “risks” by “hazards”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 2.8**

[Amend Chapter 2.8 to read as follows:

“CHAPTER 2.8

CLASS 8 – CORROSIVE SUBSTANCES

**2.8.1 Definition and general provisions**



2.8.1.1 *Corrosive substances* are substances which, by chemical action, will cause irreversible damage to the skin, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport.

2.8.1.2 For substances and mixtures that are corrosive to skin, general classification provisions are provided in section 2.8.2. [Skin corrosion refers to the production of irreversible damage to the skin, namely, visible necrosis through the epidermis and into the dermis occurring after exposure to a substance or mixture.] [A substance is corrosive to skin when it leads to the destruction of skin tissue, namely, visible necrosis through the epidermis and into the dermis, in at least one tested animal after exposure for up to 4 hours.]

2.8.1.3 Liquids and solids which may become liquid during transport, which are judged not to be skin corrosive shall still be considered for their potential to cause corrosion to certain metal surfaces in accordance with the criteria in 2.8.3.3 (c) (ii).

## **2.8.2 General classification provisions**

2.8.2.1 Substances and mixtures of Class 8 are divided among the three packing groups according to their degree of danger in transport:

- (a) *Packing group I* is assigned to very dangerous substances and mixtures;
- (b) *Packing group II* is assigned to substances and mixtures presenting medium danger;
- (c) *Packing group III* is assigned to substances and mixtures that present minor danger.

2.8.2.2 Allocation of substances listed in the Dangerous Goods List in Chapter 3.2 to the packing groups in Class 8 has been made on the basis of experience taking into account such additional factors as inhalation risk (see 2.8.2.4) and reactivity with water (including the formation of dangerous decomposition products).

2.8.2.3 New substances and mixtures can be assigned to packing groups on the basis of the length of time of contact necessary to produce [full thickness destruction of human skin] in accordance with the criteria in 2.8.3. Alternatively, for mixtures, the criteria in 2.8.4 can be used.

2.8.2.4 A substance or mixture meeting the criteria of Class 8 having an inhalation toxicity of dusts and mists (LC<sub>50</sub>) in the range of packing group I, but toxicity through oral ingestion or dermal contact only in the range of packing group III or less, shall be allocated to Class 8 (see note under 2.6.2.2.4.1).

## **2.8.3 Packing group assignment for substances and mixtures**

2.8.3.1 Existing human and animal data including information from single or repeated exposure shall be the first line of evaluation, as they give information directly relevant to effects on the skin.

2.8.3.2 In assigning the packing group in accordance with 2.8.2.3, account shall be taken of human experience in instances of accidental exposure. In the absence of human experience the grouping shall be based on data obtained from experiments in accordance with OECD Test Guideline 404<sup>1</sup> or 435<sup>2</sup>. A substance or mixture which is determined not to

<sup>1</sup> [OECD Guideline for the testing of chemicals No. 404 "Acute Dermal Irritation/Corrosion" 2015]

<sup>2</sup> [OECD Guideline for the testing of chemicals No. 435 "In Vitro Membrane Barrier Test Method for Skin Corrosion" 2015]

be corrosive in accordance with OECD Test Guideline 430<sup>3</sup> or 431<sup>4</sup> may be considered not to be corrosive to skin for the purposes of these Regulations without further testing.

2.8.3.3 Packing groups are assigned to corrosive substances in accordance with the following criteria (see table 2.8.3.4):

- (a) Packing group I is assigned to substances that cause [full thickness destruction] of intact skin tissue within an observation period up to 60 minutes starting after the exposure time of three minutes or less;
- (b) Packing group II is assigned to substances that cause [full thickness destruction] of intact skin tissue within an observation period up to 14 days starting after the exposure time of more than three minutes but not more than 60 minutes;
- (c) Packing group III is assigned to substances that:
  - (i) Cause [full thickness destruction] of intact skin tissue within an observation period up to 14 days starting after the exposure time of more than 60 minutes but not more than 4 hours; or
  - (ii) are judged not to cause [full thickness destruction] of intact skin tissue but which exhibit a corrosion rate on either steel or aluminium surfaces exceeding 6.25 mm a year at a test temperature of 55 °C when tested on both materials. For the purposes of testing steel, type S235JR+CR (1.0037 resp. St 37-2), S275J2G3+CR (1.0144 resp. St 44-3), ISO 3574 or Unified Numbering System (UNS) G10200 or a similar type or SAE 1020, and for testing aluminium, non-clad, types 7075-T6 or AZ5GU-T6 shall be used. An acceptable test is prescribed in the Manual of Tests and Criteria, Part III, Section 37.

*NOTE: Where an initial test on either steel or aluminium indicates the substance being tested is corrosive the follow up test on the other metal is not required.*

**Table 2.8.3.4: Table summarizing the criteria in 2.8.3.3**

Packing Group	Exposure Time	Observation Period	Effect
I	≤ 3 min	≤ 60 min	[full thickness destruction] of intact skin
II	> 3 min ≤ 1 h	≤ 14 d	[full thickness destruction] of intact skin
III	> 1 h ≤ 4 h	≤ 14 d	[full thickness destruction] of intact skin
III	-	-	Corrosion rate on either steel or aluminium surfaces exceeding 6.25 mm a year at a test temperature of 55 °C when tested on both materials

## 2.8.4 Alternative packing group assignment methods for mixtures: Step-wise approach

### 2.8.4.1 General provisions

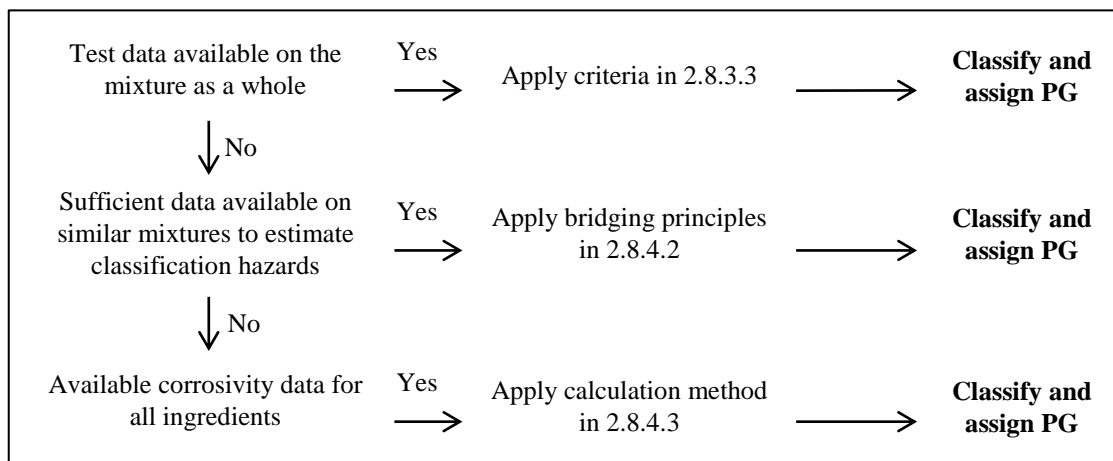
2.8.4.1.1 For mixtures it is necessary to obtain or derive information that allows the criteria to be applied to the mixture for the purpose of classification and assignment of

<sup>3</sup> [OECD Guideline for the testing of chemicals No. 430 "In Vitro Skin Corrosion: Transcutaneous Electrical Resistance Test (TER)" 2015]

<sup>4</sup> [OECD Guideline for the testing of chemicals No. 431 "In Vitro Skin Corrosion: Human Skin Model Test" 2015]

packing groups. The approach to classification and assignment of packing groups is tiered, and is dependent upon the amount of information available for the mixture itself, for similar mixtures and/or for its ingredients. The flow chart of Figure 2.8.4.1 below outlines the process to be followed:

**Figure 2.8.4.1: Step-wise approach to classify and assign packing group of corrosive mixtures**



#### 2.8.4.2 Bridging principles

2.8.4.2.1 Where a mixture has not been tested to determine its skin corrosion potential, but there are sufficient data on both the individual ingredients and similar tested mixtures to adequately classify and assign a packing group for the mixture, these data will be used in accordance with the following bridging principles. This ensures that the classification process uses the available data to the greatest extent possible in characterizing the hazards of the mixture.

- (a) **Dilution:** If a tested mixture is diluted with a diluent which does not meet the criteria for Class 8 and does not affect the packing group of other ingredients, then the new diluted mixture may be assigned to the same packing group as the original tested mixture.

*NOTE: in certain cases, diluting a mixture or substance may lead to an increase in the corrosive properties. If this is the case, this bridging principle cannot be used.*

- (b) **Batching:** The skin corrosion potential of a tested production batch of a mixture can be assumed to be substantially equivalent to that of another untested production batch of the same commercial product when produced by or under the control of the same manufacturer, unless there is reason to believe there is significant variation such that the skin corrosion potential of the untested batch has changed. If the latter occurs, a new classification is necessary.

- (c) **Concentration of mixtures of packing group I:** If a tested mixture meeting the criteria for inclusion in packing group I is concentrated, the more concentrated untested mixture may be assigned to packing group I without additional testing.

- (d) **Interpolation within one packing group:** For three mixtures (A, B and C) with identical ingredients, where mixtures A and B have been tested and are in the same skin corrosion packing group, and where untested

mixture C has the same Class 8 ingredients as mixtures A and B but has concentrations of Class 8 ingredients intermediate to the concentrations in mixtures A and B, then mixture C is assumed to be in the same skin corrosion packing group as A and B.

- (e) **Substantially similar mixtures:** Given the following:
- (i) Two mixtures: (A+B) and (C+B);
  - (ii) The concentration of ingredient B is the same in both mixtures;
  - (iii) The concentration of ingredient A in mixture (A+B) equals the concentration of ingredient C in mixture (C+B);
  - (iv) Data on skin corrosion for A and C are available and substantially equivalent, i.e. they are the same skin corrosion packing group and do not affect the skin corrosion potential of B.

If mixture (A+B) or (C+B) is already classified based on test data, then the other mixture may be assigned to the same packing group.

#### 2.8.4.3 Calculation method based on the classification of the substances

2.8.4.3.1 Where a mixture has not been tested to determine its skin corrosion potential, nor is sufficient data available on similar mixtures, the corrosive properties of the substances in the mixture shall be considered to classify and assign a packing group. This is possible when all substances in the mixture (i.e. present in concentrations of >1%) are considered for classification in accordance with [Chapter 2].

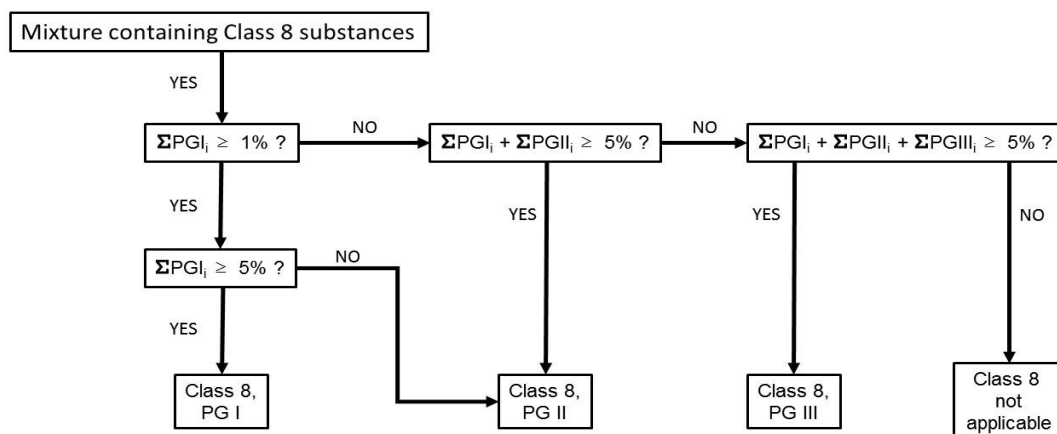
Applying the calculation method is only allowed if there are no synergistic effects that make the mixture more corrosive than the sum of its substances. This restriction applies only if packing group II or III would be assigned to the mixture.

2.8.4.3.2 When using the calculation method, all Class 8 ingredients present at a concentration of  $\geq 1\%$  shall be taken into account, or  $<1\%$  if these ingredients are still relevant for classifying the mixture to be corrosive to skin.

2.8.4.3.3 To determine whether a mixture containing corrosive substances shall be considered a corrosive mixture and to assign a packing group, the calculation method in the flow chart in Figure 2.8.4.3 shall be applied. When a specific concentration limit is assigned to a substance following its entry in the Dangerous Goods List or in a Special Provision, this limit shall be used instead of the generic limits in Figure 2.8.4.3. for that substance.

[insert example/explanation on specific concentration limits here]

**Figure 2.8.4.3: Calculation method**



### 2.8.5 Substances not accepted for transport

Chemically unstable substances of Class 8 shall not be accepted for transport unless the necessary precautions have been taken to prevent the possibility of a dangerous decomposition or polymerization under normal conditions of transport. For the precautions necessary to prevent polymerization, see special provision 386 of Chapter 3.3. To this end particular care shall be taken to ensure that receptacles and tanks do not contain any substances liable to promote these reactions.]

*(Reference document: informal document INF.65/Corr.1)*

### Chapter 2.9

2.9.4 Add the following new paragraph f):

“f) lithium batteries, containing both primary lithium metal cells and rechargeable lithium ion cells, that are not designed to be externally charged (see special provision 387 of Chapter 3.3) shall meet the following conditions:

- i) The rechargeable lithium ion cells can only be charged from the primary lithium metal cells;
- ii) Overcharge of the rechargeable lithium ion cells is precluded by design;
- iii) The battery has been tested as a lithium primary battery;
- iv) Component cells of the battery shall be of a type proved to meet the respective testing requirements of the Manual of Tests and Criteria, part III, sub-section 38.3.”.

*(Reference document: informal document INF.63, replaces the amendment in document ST/SG/SC.10/C.3/96/Add.1, part II, chapter 2.9)*

### Chapter 3.1

3.1.1.2 At the end of the last sentence, replace “risks” by “hazards”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

3.1.2.8.1.2 In the last sentence, replace “risk” by “hazard” (twice).

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

3.1.3.2 Amend the first sentence to read as follows: “When a combination of several distinct proper shipping names are listed under a single UN number, and these are separated by “and” or ”or” in lower case or are punctuated by commas, only the most appropriate shall be shown in the transport document or package marks.”.

Delete the second sentence.

*(Reference document: informal document INF.18, option B, as amended)*

3.1.3.2 (c) Replace “risk(s)” by “hazard(s)”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

3.1.3.3 Replace “subsidiary risk(s)” by “subsidiary hazard(s)”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

### Chapter 3.2

3.2.1 In the description of Column 4, replace “risk” by “hazard” and “risks” by “hazards”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

**Chapter 3.2, Dangerous goods list**

For the heading of column 4, replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

For UN Nos.: 0349, 0367, 0384 and 0481, insert “347” in Column 6.

(Reference document: informal document INF.66, annex 2)

For UN 1945, in Column (6), add “293”.

(Reference document: ST/SG/AC.10/C.3/2016/24)

For UN 3166, delete “312”, “380” and “385” in Column (6).

(Reference document: ST/SG/AC.10/C.3/2016/14, proposal 1, option 2)

For UN 3171, delete “240” in Column (6).

(Reference document: ST/SG/AC.10/C.3/2016/14, proposal 1, option 2)

For UN 3166 and UN 3171, insert “388” in Column (6).

(Reference document: ST/SG/AC.10/C.3/2016/14, proposal 1, option 2)

For UN 3302 in column (2) add at the end of the designation “, STABILIZED” and in Column (6), add “386”.

(Reference document: ST/SG/AC.10/C.3/2016/3)

Add the following new entry:

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)
3536	LITHIUM BATTERIES INSTALLED IN CARGO TRANSPORT UNIT lithium ion batteries or lithium metal batteries	9			389	E0	0				

(Reference document: informal document INF.69, as amended)

**Alphabetical Index**

In column “Name and description” of the Alphabetical Index of Substances and Articles for the entry “2-DIMETHYLAMINOETHYL ACRYLATE” add at the end “, STABILIZED”.

(Reference document : ST/SG/AC.10/C.3/2016/3)

**Chapter 3.3**

Special Provision 63, In the introductory text, replace “risk(s)” by “hazard(s)”. In (e) and (g), replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special Provision 122, replace “risk(s)” by “hazard(s)”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special Provision 133, replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special Provision 172, In (a) and (b), replace “risk” by “hazard” 3 times. In (c), replace “risk(s)” by “hazard(s)”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special Provision 181, replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special provision 188 In sub-paragraph (d), replace “protection against contact with conductive materials” by “protection against contact with electrically conductive material”.

(Reference document: ST/SG/AC.10/C.3/2016/2)

Special provision 188 (f) Existing note becomes Note1. Add the following new Note 2:

**“NOTE 2: Packages containing lithium batteries packed in conformity with the provisions of Part 4, Chapter 11, Packing Instructions 965 or 968, Section IB of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air that bear the mark as shown in 5.2.1.9 (lithium battery mark) and the label shown in 5.2.2.2.2, Model No.9A shall be deemed to meet the provisions of this special provision.”**

(Reference document: ST/SG/AC.10/C.3/2016/43)

Special provision 204, replace “risk” by “hazard” three times.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Delete special provisions 240, 312, 380 and 385 and add:

“240 (Deleted)”

“312 (Deleted)”

“380 (Deleted)”

“385 (Deleted)”

(Reference document: ST/SG/AC.10/C.3/2016/14, proposal 1, option 2)

Special provision 271, replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special provision 290 (b), In (a) and (b), replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special provision 293 (b) After “Safety matches are”, insert “matches that”.

(Reference document: ST/SG/AC.10/C.3/2016/24)

Special provision 362 (b), replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special provision 362 (c), replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

Special provision 363, Add the following new introductory sentence: “This entry may only be used when the conditions of this special provisions are met. No other requirements of these regulations apply.”

(Reference document: informal document INF.77)

Special provision 363 (f) Replace the last sentence by the following text:

“However, lithium batteries shall meet the provisions of 2.9.4, except that 2.9.4 (a) does not apply when pre-production prototype batteries or batteries of a small production run, consisting of not more than 100 batteries, are installed in machinery or engines.

Where a lithium battery installed in a machinery or an engine is damaged or defective, the machinery or engine shall be transported as defined by the competent authority.”

*(Reference document: ST/SG/AC.10/C.3/2016/14, proposal 2, option 2)*

Special provision 363 Delete the first sub-paragraph under (g). Renumber existing (i) to (vi) under current (g) as (g) to (l). Add a new sub-paragraph (m) to read as follows:

“(m) The requirements specified in packing instruction P005 of 4.1.4.1 shall be met.”

*(Reference document: informal document INF.77)*

Special Provision 369 In the first paragraph, replace “risks” by “hazards”. In the third paragraph, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

3.3.1 Add the following new special provisions:

“387 Lithium batteries in conformity with 2.9.4(f) containing both primary lithium metal cells and rechargeable lithium ion cells shall be assigned to UN Nos. 3090 or 3091 as appropriate. When such batteries are transported in accordance with special provision 188, the total lithium content of all lithium metal cells contained in the battery shall not exceed 1.5 g and the total capacity of all lithium ion cells contained in the battery shall not exceed 10 Wh.”

*(Reference document: ST/SG/AC.10/C.3/46, proposal 1, replaces amendment in document ST/SG/AC.10/C.3/96/Add.1, part II, chapter 3.3)*

“388 Entry UN 3166 applies to vehicles powered by flammable liquid or gas internal combustion engines or fuel cells.

Vehicles powered by a fuel cell engine shall be consigned under the entries UN No. 3166 VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED or UN No. 3166 VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED, as appropriate. These entries include hybrid electric vehicles powered by both a fuel cell and an internal combustion engine with wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed.

Other vehicles which contain an internal combustion engine shall be consigned under the entries UN 3166 VEHICLE, FLAMMABLE GAS POWERED or UN 3166 VEHICLE, FLAMMABLE LIQUID POWERED, as appropriate. These entries include hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed.

If a vehicle is powered by a flammable liquid and a flammable gas internal combustion engine, it shall be assigned to UN 3166 VEHICLE, FLAMMABLE GAS POWERED.

Entry UN 3171 only applies to vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries and equipment powered by wet batteries or sodium batteries transported with these batteries installed.

For the purpose of this special provision, vehicles are self-propelled apparatus designed to carry one or more persons or goods. Examples of such vehicles are cars, motorcycles, scooters, three- and four-wheeled vehicles or motorcycles, trucks, locomotives, bicycles (pedal cycles with a motor) and other vehicles of this type (e.g. self-balancing vehicles or vehicles not equipped with at least one seating position), wheelchairs, lawn tractors, self-propelled farming and construction equipment, boats and aircraft. This includes vehicles transported in a packaging. In this case some parts of the vehicle may be detached from its frame to fit into the packaging.



Examples of equipment are lawnmowers, cleaning machines or model boats and model aircraft. Equipment powered by lithium metal batteries or lithium ion batteries shall be consigned under the entries UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, as appropriate.

Dangerous goods, such as batteries, airbags, fire extinguishers, compressed gas accumulators, safety devices and other integral components of the vehicle that are necessary for the operation of the vehicle or for the safety of its operator or passengers, shall be securely installed in the vehicle and are not otherwise subject to these Regulations. However, lithium batteries shall meet the provisions of 2.9.4, except that 2.9.4 (a) does not apply when pre-production prototype batteries or batteries of a small production run, consisting of not more than 100 batteries, are installed in vehicles or equipment.

Where a lithium battery installed in a vehicle or equipment is damaged or defective, the vehicle or equipment shall be transported as defined by the competent authority.”.

*(Reference document: ST/SG/AC.10/C.3/2016/14, proposal 1, option 2 and proposal 2, option 2 as amended)*

“389 This entry only applies to lithium ion batteries or lithium metal batteries installed in a cargo transport unit and designed only to provide power external to the cargo transport unit. The lithium batteries shall meet the requirements of 2.9.4 (a) to (e) and contain the necessary systems to prevent overcharge and over discharge between the batteries.

The batteries shall be securely attached to the interior structure of the cargo transport unit (e.g., by means of placement in racks, cabinets, etc.) in such a manner as to prevent short circuits, accidental operation, and significant movement relative to the cargo transport unit under the shocks, loadings and vibrations normally incident to transport. Dangerous goods necessary for the safe and proper operation of the cargo transport unit (e.g., fire extinguishing systems and air conditioning systems), shall be properly secured to or installed in the cargo transport unit and are not otherwise subject to these Regulations. Dangerous goods not necessary for the safe and proper operation of the cargo transport unit shall not be transported within the cargo transport unit.

The batteries inside the cargo transport unit are not subject to marking or labelling requirements. The cargo transport unit shall display the UN number in accordance with 5.3.2.1.2 and be placarded on two opposing sides in accordance with 5.3.1.1.2.”.

*(Reference document: informal document INF.69, as amended)*

## **Appendix A**

In the List of generic and N.O.S. proper shipping names, header, column 2, replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 4.1**

4.1.4.1, Packing instruction P101            Replace “The State’s distinguishing sign for motor vehicles in international traffic” by “The distinguishing sign used on vehicles in international road traffic<sup>a</sup>”.

Table note a reads as follows:

<sup>a</sup> *Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.*”.

(Reference document: ST/SG/AC.10/C.3/2016/4)

4.1.4.1, Packing instruction P200                      In the header of column 4 of tables 1, 2 and 3, replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

4.1.4.1, Packing instruction P203, (7)            Replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

4.1.4.1, Packing instruction P206 (3):

In the first paragraph, replace “liquid phase” by “liquefied gas”.

In subparagraph (i), replace “liquid component” by “liquefied gas”.

In subparagraph (iv), replace “liquid component” by “liquefied gas”.

In subparagraph (v), replace “liquid component” by “liquefied gas”.

In the last paragraph, replace “liquid component” by “liquid phase”.

(Reference document: informal document INF.41)

4.1.4.1, Packing instruction P208                      In Table 1, header, column 4, replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

4.1.4.1, Packing instruction P520, additional requirement 4            Replace “risk” by “hazard”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

4.1.4.1, Packing instruction P801, additional requirement 2            Replace “non-conductive” by “electrically non-conductive”.

(Reference document: ST/SG/AC.10/C.3/2016/2)

4.1.4.1, Packing Instruction P908, paragraphs 2 and 4                      Replace “non-conductive” by “electrically non-conductive”.

(Reference document: ST/SG/AC.10/C.3/2016/2)

4.1.4.1, Packing instruction P909, paragraph 2 and 4                      Replace “non-conductive” by “electrically non-conductive”.

(Reference document: ST/SG/AC.10/C.3/2016/2)

4.1.4.1, Packing instruction P910                      In paragraphs (1) (c), (1) (d), (2) (c), and fourth indent of the additional requirements, replace “non-conductive” by “electrically non-conductive”.

(Reference document: ST/SG/AC.10/C.3/2016/2)

4.1.4.3, packing instruction LP902                      Under “Packaged articles”, replace “Packagings conforming to the packing group III performance level.” by:

“Rigid large packagings conforming to the packing group III performance level, made of:

steel (50A)

aluminium (50B)

metal other than steel or aluminium (50N)

rigid plastics (50H)  
 natural wood (50C)  
 plywood (50D)  
 reconstituted wood (50F)  
 rigid fibreboard (50G)".

*(Reference document: ST/SG/AC.10/C.3/2016/23)*

4.1.4.3, Packing instruction LP904 In paragraphs 2 and 4, replace "non-conductive" by "electrically non-conductive".

*(Reference document: ST/SG/AC.10/C.3/2016/2)*

4.1.6.1.4 In the third sentence, replace "risk" by "hazard".

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

4.1.9.1.5 Replace "risk" by "hazard" twice.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 4.2**

4.2.1.19.1 Replace "risk" by "hazard".

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

4.2.5.2.6, Portable Tank Instruction T23, footnote d Replace risk" by "hazard".

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 5.1**

5.1.4 Replace "risk" by "hazard" twice.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

## **Chapter 5.2**

5.2.2.1.1 Replace "risks" by "hazards" and "risk" by "hazard".

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.2 Replace "risk" by "hazard" 6 times.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.3 Replace "risk" by "hazard" 3 times.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.3.1 Replace "risk" by "hazard" twice.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.4 Replace "risk(s)" by "hazard(s)" 2 times and "risk" by "hazard" (twice).

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.5 Replace "risk" by "hazard".

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.6 (c) Replace "risk" by "hazard".

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.9 Replace "risk" by "hazard".

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.10 Replace “risk” by “hazard” 4 times.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.1.11 Replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.2.1.5 Replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.2.2.2.2 Replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

### **Chapter 5.3**

5.3.1.1.2 Amend the title of Chapter 5.3 to read as follows: “PLACARDING AND MARKING OF CARGO TRANSPORT UNITS AND BULK CONTAINERS”.

*(Reference document: ST/SG/AC.10/C.3/2016/38)*

5.3.1.1.2 In the first sentence, replace “risks” by “hazards” and after “transport unit” add “and bulk container”. In the second sentence, in (b), replace “risks” by “hazards” and after “transport unit” add “and bulk container”.

5.3.1.1.2 In the text before sub-paragraph (a), after “cargo transport units” add “and bulk containers” and after “cargo transport unit” add “or bulk container”.

*(Reference document: ST/SG/AC.10/C.3/2016/16 and ST/SG/AC.10/C.3/2016/38)*

[Voir avec le texte existant pour organiser ces amendments]

5.3.1.1.3 In the first sentence, replace “risks” by “hazards” and “risk” by “hazard”. In the second sentence, replace “risk” by “hazard” twice.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.3.2.3.1 After “transport unit” add “or bulk container” (twice).

*(Reference document: ST/SG/AC.10/C.3/2016/38)*

5.3.2.3.2 After “cargo transport units” add “and bulk containers”.

*(Reference document: ST/SG/AC.10/C.3/2016/38)*

### **Chapter 5.4**

5.4.1.4.1 (d) Replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.4.1.5.5.1 Replace “risk” by “hazard”.

*(Reference document: ST/SG/AC.10/C.3/2016/16)*

5.4.1.5.10 In the second paragraph, replace “the distinguishing sign for motor vehicles in international traffic” by “the distinguishing sign used on vehicles in international road traffic<sup>3</sup>”, with footnote 3 reading as follows:

<sup>3</sup> Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968”.

For Chapter 5.4, renumber subsequent footnotes accordingly.

(Reference document: ST/SG/AC.10/C.3/2016/4)

## Chapter 6.1

6.1.1.1 (a) (i) Replace “(subsidiary risks)” by “(subsidiary hazards)”.

(Reference document: ST/SG/AC.10/C.3/2016/16)

6.1.3.1 (f) Replace “indicated by the distinguishing sign for motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”.

6.1.3.8 (h) Replace “indicated by the distinguishing sign for motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”.

Footnote 2 reads as follows: “<sup>2</sup> Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

(Reference document: ST/SG/AC.10/C.3/2016/4)

6.1.5.7 Under item 8, add the following sentence at the end: “For plastics packagings subject to the internal pressure test in 6.1.5.5, the temperature of the water used.”.

(Reference document: informal document INF.13, § 7.)

## Chapter 6.2

6.2.1.6.1 (d) Replace the existing Note 2 with the following:

**“NOTE 2:** For seamless steel cylinders and tubes the check of 6.2.1.6.1 (b) and hydraulic pressure test of 6.2.1.6.1 (d) may be replaced by a procedure conforming to ISO 16148:2016 ‘Gas cylinders – Refillable seamless steel gas cylinders and tubes – Acoustic emission examination (AT) and follow-up ultrasonic examination (UT) for periodic inspection and testing’”.

(Reference document: informal document INF.11, proposal 1)

6.2.1.6.1 (d) In Note 3, replace “The hydraulic pressure test may be replaced” by “The check of 6.2.1.6.1 (b) and the hydraulic pressure test of 6.2.1.6.1 (d) may be replaced”.

(Reference document: informal document INF.11, proposal 2)

6.2.2.1.8 Amend the beginning of the first sentence to read as follows: “The following standards apply for the design ...”.

In the table, for the standard “ISO 21172-1:2015”, in the second column add the following new Note after the standard title:

**“NOTE:** Irrespective section 6.3.3.4 of this standard, welded steel gas pressure drums with dished ends convex to pressure may be used for the transport of corrosive substances provided all applicable requirements of these Regulations are met.”.

Insert two new rows in the table after the entry for ISO 21172-1:2015 as follows:

ISO 4706: 2008	Gas cylinders – Refillable welded steel cylinders – Test pressure 60 bar and below;	Until further notice
ISO 18172-1:2007	Gas cylinders – Refillable welded stainless steel cylinders – Part 1: Test pressure 6 MPa and below	Until further notice

(Reference document: ST/SG/AC.10/C.3/2016/20) and ST/SG/AC.10/C.3/2016/28, option 1)

6.2.2.3 In the table, under Service equipment, insert a new final row reading as follows:

ISO 17871:2015	Gas cylinders – Quick-release cylinders valves- Specification and type testing	Until further notice
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(Reference document: ST/SG/AC.10/C.3/2016/20)

6.2.2.4 In the table, for “ISO 11623:2002”, in column “Applicable”, replace “Until further notice” by “Until 31 December 2020”. After the row for “ISO 11623:2002” insert the following new row:

ISO 11623:2015	Gas cylinders – Composite construction – Periodic inspection and testing	Until further notice
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(Reference document: ST/SG/AC.10/C.3/2016/20)

6.2.2.7.2 (c) Replace “indicated by the distinguishing signs for motor vehicles in international traffic” by: “the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”

6.2.2.7.4 (n) Replace “indicated by the distinguishing signs for motor vehicles in international traffic<sup>3</sup>” by: “the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”

6.2.2.7.7 (a) Replace “indicated by the distinguishing signs of motor vehicles in international traffic<sup>3</sup>” by: “the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”

6.2.2.9.2 (c) and (h) Replace “indicated by the distinguishing signs of motor vehicles in international traffic<sup>3</sup>” by: “the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”

6.2.2.9.4 (a) Replace “indicated by the distinguishing signs of motor vehicles in international traffic<sup>3</sup>” by: “the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”

Footnote<sup>2</sup> reads as follow:

“<sup>2</sup> Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968”.

6.2.4.3 Renumber footnote 2 as footnote 3

(Reference document: ST/SG/AC.10/C.3/2016/4)

### Chapter 6.3

6.3.4.2 (e) Replace “indicated by the distinguishing sign for motor vehicles in international traffic<sup>2</sup>” by: “the distinguishing sign used on vehicles in international road traffic<sup>1</sup>”

Footnote 1 reads as follows:

“<sup>1</sup> Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968”.

(Reference document: ST/SG/AC.10/C.3/2016/4)

### Chapter 6.4

6.4.23.11 (a) In paragraph (a), replace “the international vehicle registration identification code<sup>1</sup>” by “the distinguishing sign used on vehicles in international road traffic<sup>1</sup>”.

Amend footnote 1 to read as follows: “<sup>1</sup> Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

(Reference document: ST/SG/AC.10/C.3/2016/4)

## Chapter 6.5

6.5.2.1.1 (e) Replace “indicated by the distinguishing sign for motor vehicles in international traffic<sup>2</sup>” by: “the distinguishing sign used on vehicles in international road traffic<sup>1</sup>”

Footnote 1 reads as follows:

“<sup>1</sup> Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968”

(Reference document: ST/SG/AC.10/C.3/2016/4)

6.5.6.9.3 Amend the last paragraph to read as follows:

“The same IBC or a different IBC of the same design may be used for each drop.”

(Reference document: ST/SG/AC.10/C.3/2016/1, § 7. as amended)

6.5.6.14.1 Under item 8, add the following sentence: “For rigid plastics and composite IBCs subject to the hydraulic pressure test in 6.5.6.8, the temperature of the water used.”.

(Reference document: informal document INF.13, § 7.)

## Chapter 6.6

6.6.3.1 (e) Replace indicated by the distinguishing sign for motor vehicles in international traffic<sup>2</sup>” by “indicated by the distinguishing sign used on vehicles in international road traffic<sup>1</sup>”.

Footnote 1 should read as follows:

“<sup>1</sup> Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”

(Reference document: ST/SG/AC.10/C.3/2016/4)

## Chapter 6.7

6.7.2.18.1 In the fourth sentence, replace “i.e. the distinguishing sign for use in international traffic as prescribed by the Convention on Road Traffic, Vienna 1968” by “indicated by the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”.

6.7.3.14.1 In the fourth sentence, replace “i.e. the distinguishing sign for use in international traffic, as prescribed by the Convention on Road Traffic, Vienna 1968” by “indicated by the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”.

6.7.4.13.1 In the fourth sentence, replace “i.e. the distinguishing sign for use in international traffic as presented by the Convention on Road Traffic, Vienna 1968” by “indicated by the distinguishing sign for use in international road traffic<sup>2</sup>”.

6.7.5.11.1 In the fourth sentence, replace “i.e. the distinguishing sign for use in international traffic, as prescribed by the Convention on Road Traffic, Vienna 1968” by “indicated by the distinguishing sign used on vehicles in international road traffic<sup>2</sup>”.

Footnote 2 should read as follows:

<sup>2</sup> *Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.*”.

Under chapter 7.2, renumber the footnotes in the following pages consequently.

(Reference document: ST/SG/AC.10/C.3/2016/4)

### **Chapter 6.8**

6.8.5.5.1 (e) Replace “indicated by the distinguishing signs for motor vehicles in international traffic” by: “the distinguishing signs used on vehicles in international road traffic<sup>2</sup>”.

Footnote 2 reads as follows:

<sup>2</sup> *Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968*”

(Reference document: ST/SG/AC.10/C.3/2016/4)

### **Chapter 7.1**

7.1.2.3 (c) Replace “risk” by “hazard” (three times).

(Reference document: ST/SG/AC.10/C.3/2016/16)

**In ST/SG/AC.10/C.3/96/Add.1**, annex II, remove the square brackets except for 5.4.1.5.5.



## Annex IV

### **Corrections to the sixth revised edition of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.6)**

33.2.1.4.4.1 For “33.2.1.3.4.2” read “33.2.1.4.3.2”.

*(Reference document: ST/SG/AC.10/C.3/2016/5 as amended)*

## Annex V

### **Corrections to the nineteenth revised edition of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations**

#### **Chapter 3.2, list of dangerous goods**

Not applicable to the English text.

*(Reference document: ST/SG/AC.10/C.3/2016/22)*

#### **Chapter 5.2**

5.2.1.9.2 In the last paragraph, after “black on white” add “or suitable contrasting background”.

*(Reference document: informal document INF.71)*

**In ST/SG/AC.10/C.3/96/Add.1**, annex III, remove the square brackets.

## Annex VI

### **Proposal of amendments to the sixth revised edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (ST/SG/AC.10/30/Rev.6)**

2.17.2.1 Amend the text before sub-paragraphs (a) and (b) to read as follows:

“Any explosive while in a desensitized state shall be considered in this class unless, in that state:”.

2.17.2.1 (a) Amend to read as follows:

“(a) It is intended to produce a practical explosive or pyrotechnic effect;”.

2.17.2.1 (b) Replace “their corrected burning rate” by “the corrected burning rate”.

2.17.2.1 (c) Replace “Their exothermic decomposition” by “The exothermic decomposition”.

In NOTE 1, after “*which meet the criterion (a) or (b)*” insert “*in their desensitized state*”.

(Reference document: ST/SG/AC.10/C.4/62, annex I)

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