

## Corrigendum 1

Ref. Sales No.: E.17.VIII.1  
(ST/SG/AC.10/1/Rev.20, Vol. I and II)

April 2019  
New York and Geneva

---

### Recommendations on the Transport of Dangerous Goods Model Regulations (Twentieth revised edition)

#### Corrigendum

*NOTE: Corrigenda to the Recommendations on the Transport of Dangerous Goods are also made available on the website of the United Nations Economic Commission for Europe at the following address:  
[http://www.unece.org/trans/danger/publi/unrec/mr\\_pubdet.html](http://www.unece.org/trans/danger/publi/unrec/mr_pubdet.html)*

#### Volume I

**1. Chapter 1.2, 1.2.1 definitions**

Not applicable to English.

**2. Chapter 1.4, 1.4.3.2.1, in the Note, last sentence**

For markings *read* marks

**3. Chapter 2.0, 2.0.0.1**

Not applicable to English.

**4. Chapter 2.0, 2.0.5, heading**

For the existing text, *substitute*

**2.0.5 Classification of articles as articles containing dangerous goods, N.O.S.**

**5. Chapter 2.0, 2.0.5.1, first sentence**

For may be transported *read* may be classified

**6. Chapter 2.0, 2.0.5.6**

For the existing text, *substitute*

2.0.5.6 Subsidiary hazards shall be representative of the primary hazard posed by the other dangerous goods contained within the article. When only one item of dangerous goods is present in the article, the subsidiary hazard(s), if any, shall be the subsidiary

---

ST/SG/AC.10/1/Rev.20/Corr.1  
English  
Original: English and French

hazard(s) identified in column (4) of the Dangerous Goods List. If the article contains more than one item of dangerous goods and these could react dangerously with one another during transport, each of the dangerous goods shall be enclosed separately (see 4.1.1.6).

**7. Chapter 2.1, 2.1.3.5.5, Note 2**

*For firework read fireworks*

**8. Chapter 2.2, 2.2.1.2 (c), at the end**

*Delete or*

**9. Chapter 2.3, 2.3.1.3**

*Not applicable to English.*

**10. Chapter 2.4, 2.4.2.3.1.2 (e)**

*For Aromatic sulphohydrazides read Aromatic sulphonylhydrazides*

**11. Chapter 2.6, Note under 2.6.2.2.4.1**

*For 2.8.2.3 read 2.8.2.4*

**12. Chapter 2.8, 2.8.3.2**

*For the grouping shall be based read the assignment shall be based*

**13. Chapter 2.8, 2.8.4.3.3, at the end**

*Add* For this calculation method, generic concentration limits apply where 1% is used in the first step for the assessment of the packing group I substances, and where 5% is used for the other steps respectively.

**14. Chapter 2.8, 2.8.4.3.4, last sentence**

*Delete*

**15. Chapter 2.8, 2.8.4.3.5**

$$\text{For } \frac{PGx_1}{GCL} + \frac{PGx_2}{SCL_2} + \dots + \frac{PGx_i}{SCL_i} \geq 1$$

$$\text{read } \frac{PGx_1}{GCL} + \frac{PGx_2}{SCL_2} + \dots + \frac{PGx_i}{SCL_i} \geq 1$$

*For PG xi read PG<sub>x<sub>i</sub></sub>*

*For SCL<sub>i</sub> read SCL<sub>i</sub>*

**16. Chapter 2.8, 2.8.4.3.5, Example 2, calculation for packing group III**

*For 10 (conc B) read 10 (conc C)*

**17. Chapter 3.2, Dangerous goods list, for UN Nos. 3090, 3091, 3480 and 3481, in column (8)**

*Insert P911*

*Insert LP905 LP906*

**18. Chapter 3.2, Dangerous goods list, for UN Nos. 3101 to 3120, in column (6)**

Delete 323

**19. Chapter 3.2, 3.2.1, Dangerous Goods List, for UN 3543, in column (2)**

For ARTICLES CONTAINING A SUBSTANCE WHICH EMITS FLAMMABLE GAS IN CONTACT WITH WATER, N.O.S.

read ARTICLES CONTAINING A SUBSTANCE WHICH IN CONTACT WITH WATER EMITS FLAMMABLE GASES, N.O.S.

**20. Chapter 3.3, special provision 188 (c)**

For 2.9.4 (a) and (e) read 2.9.4 (a), (e), (f) if applicable and (g)

**21. Chapter 3.3, special provision 188 (g) and (h)**

For Except when batteries read Except when cells or batteries

**22. Chapter 3.3, special provision 251, third paragraph**

Not applicable to English.

**23. Chapter 3.3, special provision 301, first paragraph, last sentence**

For the existing text, *substitute*

When it is required to ensure liquid dangerous goods remain in their intended orientation, orientation arrows shall be displayed on at least two opposite vertical sides with the arrows pointing in the correct direction in accordance with 5.2.1.7.1.

**24. Chapter 3.3, special provision 323**

For the existing text, *substitute*

323 Deleted.

**25. Chapter 3.3, special provision 341**

Not applicable to English.

**26. Chapter 3.3, special provision 388, in the second, third and seventh paragraphs**

For consigned under the entries read assigned to the entries

**27. Chapter 3.3, special provision 388, fourth paragraph**

Not applicable to English.

**28. Chapter 3.3, special provision 389, first paragraph**

For 2.9.4 (a) to (e) read 2.9.4 (a) to (g)

**29. Chapter 3.3, special provision 392 (a), in the table, for ECE Regulation No. 110, in the second column**

For the existing text, *substitute*

Uniform provisions concerning the approval of:

I. Specific components of motor vehicles using compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system

II. Vehicles with regard to the installation of specific components of an approved type for the use of compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system

**30. Chapter 3.3, special provision 392 (a), in the table, for ECE Regulation No. 134**

*For* Hydrogen and fuel cell vehicles (HFCV) *read* Uniform provisions concerning the approval of motor vehicles and their components with regards to the safety-related performance of hydrogen-fuelled vehicles (HFCV)

**31. Chapter 3.3, special provision 392 (c), second sentence**

*For* the existing text, *substitute*:

If only one valve exists or only one valve works, all openings with the exception of the opening of the pressure relief device shall be closed as to be gastight under normal conditions of transport;

**32. Appendix A, table, for Division 2.1, last row**

*For* GAZ *read* GAS

**33. Appendix A, table, for Division 4.3, for UN 3543, in column “Proper shipping name”**

*For* ARTICLES CONTAINING A SUBSTANCE WHICH EMITS FLAMMABLE GAS IN CONTACT WITH WATER, N.O.S.

*read* ARTICLES CONTAINING A SUBSTANCE WHICH IN CONTACT WITH WATER EMITS FLAMMABLE GASES, N.O.S.

**34. Appendix B, for “ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI)”**

*For* Articles that contain only extremely insensitive substances *read* Articles that predominantly contain extremely insensitive substances

**35. Appendix B, for “Initiation, means of”**

*For* significant hazard *read* significant risk

**36. Alphabetical index**

*For* ARTICLES CONTAINING A SUBSTANCE WHICH EMITS FLAMMABLE GAS IN CONTACT WITH WATER, N.O.S.

*read* ARTICLES CONTAINING A SUBSTANCE WHICH IN CONTACT WITH WATER EMITS FLAMMABLE GASES, N.O.S.

**Volume II****37. Chapter 4.1, 4.1.4.1, packing instruction P006, (3) (c)**

Not applicable to English.

**38. Chapter 4.1, 4.1.4.1, packing instruction P200, (3) (a)**

*For (4) read (5)*

**39. Chapter 4.1, 4.1.4.1, packing instruction P200, (3) (b), (3) (b) (i) and (3) (d)**

*For (4) read (5)*

**40. Chapter 4.1, 4.1.4.1, packing instruction P410, table note d**

For the existing text *substitute*

<sup>d</sup> *For packing group II substances, these packagings may only be used when transported in a closed cargo transport unit.*

**41. Chapter 4.1, 4.1.4.1, packing instruction P520, PP94, 4.**

*For grammes read grams*

**42. Chapter 4.1, 4.1.4.1, packing instruction P520, PP95, 5.**

*For grammes read grams*

**43. Chapter 4.1, 4.1.4.1, packing instruction P907, after the heading row**

*Insert the following new row*

|                                      |
|--------------------------------------|
| This instruction applies to UN 3363. |
|--------------------------------------|

**44. Chapter 4.1, 4.1.4.1, packing instruction P907, second paragraph, second sentence**

*For filling density read filling ratio*

**45. Chapter 4.1, 4.1.4.1, packing instruction P911, (1)**

*For the packaging has to read the packaging shall*

**46. Chapter 4.1, 4.1.4.1, packing instruction P911, (1) (b)**

*For No flame will occur read No flame shall occur*

**47. Chapter 4.1, 4.1.4.1, packing instruction P911, (1) (c)**

*For No projectiles will exit read No projectiles shall exit*

**48. Chapter 4.1, 4.1.4.1, packing instruction P911, table note a, in (b), last sentence**

*For this hazards read these hazards*

**49. Chapter 4.1, 4.1.4.1, packing instruction P911, table note a, in (c), at the beginning**

*For mitigations effects read mitigating effects*

**50. Chapter 4.1, 4.1.4.1, packing instruction P911, table note a, in (e)**

For the higher possible SOC *read* the highest possible SOC

**51. Chapter 4.1, 4.1.4.1, packing instruction P911, table note a, (h)**

For the existing text, *substitute*

(h) These scenarios shall be assessed over a period of time long enough to allow all the possible consequences to occur (e.g. 24 hours).

**52. Chapter 4.1, packing instruction LP03, (2), (c)**

Not applicable to English.

**53. Chapter 4.1, 4.1.4.3, packing instruction LP903, second sentence**

For the existing text, *substitute*

The following large packagings are authorized for a single battery and for a single item of equipment containing batteries, provided that the general provisions of **4.1.1** and **4.1.3** are met:

**54. Chapter 4.1, 4.1.4.3, packing instruction LP904, first sentence**

For the existing text, *substitute*

This instruction applies to single damaged or defective batteries and to single items of equipment containing damaged or defective cells and batteries of UN Nos. 3090, 3091, 3480 and 3481.

**55. Chapter 4.1, 4.1.4.3, packing instruction LP904, second sentence**

For the existing text, *substitute*

The following large packagings are authorized for a single damaged or defective battery and for a single item of equipment containing damaged or defective cells and batteries, provided the general provisions of **4.1.1** and **4.1.3** are met.

**56. Chapter 4.1, 4.1.4.3, packing instruction LP905, introductory sentence**

For “cells and batteries” *read* “cells or batteries” (twice).

**57. Chapter 4.1, 4.1.4.3, packing instruction LP905, second row after the heading row**

For the existing text, *substitute*

The following large packagings are authorized for a single battery and for a single item of equipment containing cells or batteries, provided that the general provisions of **4.1.1** and **4.1.3** are met:

**58. Chapter 4.1, 4.1.4.3, packing instruction LP905, (2), first sentence**

For the existing text, *substitute*

For a single item of equipment containing cells or batteries:

**59. Chapter 4.1, 4.1.4.3, packing instruction LP906, first paragraph**

*Delete* single

**60. Chapter 4.1, 4.1.4.3, packing instruction LP906, second sentence after the first paragraph**

For the existing text, *substitute*

For a single battery and for a single item of equipment containing batteries:

**61. Chapter 4.1, 4.1.4.3, packing instruction LP906, (1), at the beginning**

*For* The large packaging has to be capable *read* The large packaging shall be capable

**62. Chapter 4.1, 4.1.4.3, packing instruction LP906, table note a, in (b), last sentence**

*For* this hazards *read* these hazards

**63. Chapter 4.1, 4.1.4.3, packing instruction LP906, table note a, in (c), at the beginning**

*For* mitigations effects *read* mitigating effects

**64. Chapter 4.1, 4.1.4.3, packing instruction LP906, table note a, in (e)**

*For* the higher possible SOC *read* the highest possible SOC

**65. Chapter 4.1, 4.1.4.3, packing instruction LP906, table note a, in (f), at the end**

*For* the packaging *read* the large packaging

**66. Chapter 4.1, 4.1.4.3, packing instruction LP906, table note a, (h)**

For the existing text, *substitute*

(h) These scenarios shall be assessed over a period of time long enough to allow all the possible consequences to occur (e.g. 24 hours).

**67. Chapter 4.2, 4.2.5.3, portable tank special provision TP10, second sentence**

*For* beyond the date of expiry of the last testing *read* beyond that date

**68. Chapter 5.2, 5.2.1.7.1, indents**

For the existing text, *substitute*

- Combination packagings having inner packagings containing liquid dangerous goods;
- Single packagings fitted with vents;
- Cryogenic receptacles intended for the transport of refrigerated liquefied gases; and
- Machinery or apparatus containing liquid dangerous goods when it is required to ensure the liquid dangerous goods remain in their intended orientation (see special provision 301 of chapter 3.3),

**69. Chapter 5.2, 5.2.2.1.12.1, third sentence**

*Delete*

**70. Chapter 5.2, 5.2.2.1.13.1, at the beginning**

*For* Packages containing dangerous goods in articles and dangerous goods in articles transported unpackaged *read* Packages containing articles or articles transported unpackaged

- 
- 71. Chapter 5.2, 5.2.2.2.2, table, for label model No 2.1, second column**  
*Delete* (except as provided for in 5.2.2.2.1.6 d))
- 72. Chapter 5.2, 5.2.2.2.2, table, for label model No 2.1, third column**  
*For* Flame: black or white *read* Flame: black or white (except as provided for in 5.2.2.2.1.6 d))
- 73. Chapter 5.2, 5.2.2.2.2, table, for label model No 2.1, fifth column**  
*For* 2 (black or white) *read* 2 (black or white) (except as provided for in 5.2.2.2.1.6 d))
- 74. Chapter 5.2, 5.2.2.2.2, table, for label model No 4.1, second column**  
*For* Flammable solids, self-reactive substances, solid desensitized explosives and polymerizing substances *read* Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives
- 75. Chapter 5.2, 5.2.2.2.2, table, for label model No 7A, second column**  
*For* Category I *read* Category I – WHITE
- 76. Chapter 5.2, 5.2.2.2.2, table, for label model No 7B, second column**  
*For* Category II *read* Category II – YELLOW
- 77. Chapter 5.2, 5.2.2.2.2, table, for label model No 7C, second column**  
*For* Category III *read* Category III – YELLOW
- 78. Chapter 5.3, 5.3.1.1.2 (b)**  
*Delete* and bulk containers
- 79. Chapter 5.3, 5.3.2.2, second paragraph, second sentence**  
Not applicable to English
- 80. Chapter 5.4, 5.4.1.5.5, at the beginning**  
*Delete* of Division 4.1
- 81. Chapter 6.2, 6.2.2.1.8, table, Note for ISO 21172-1:2015**  
*For* irrespective section *read* irrespective of section
- 82. Chapter 7.1, 7.1.5.3.5, in the table, for “Portable tanks”, second column**  
*For* < 50 °C *read* ≤ 45 °C
-