

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 Globally Harmonized
System of Classification and Labelling of Chemicals

10 December 2014

Twenty-eighth session

Geneva, 10 – 12 (morning) December 2014

Items 2, 7 and 8 of the provisional agenda

Work of the Sub-Committee of Experts on the Transport of Dangerous Goods on its 46th session on matters of interest to the GHS Sub-Committee

Note by the secretariat

Introduction

1. The Sub-Committee of Experts on the Transport of Dangerous Goods (TDG Sub-Committee) held its forty-sixth session from 1 to 9 December 2014. It considered the following issues of interest to the GHS Sub-Committee under items 2 (listing, classification and packing), 8 (issues relating to the GHS), 9 (programme of work for the biennium 2015-2016) and 10 (Draft resolution 2015/... of the Economic and Social Council) of its agenda:

- Classification of UN Nos. 2211 and 3314
- Desensitized explosives
- Pyrophoric gases
- Criteria for water-reactivity
- Corrosivity criteria
- Proposal for review of Chapter 2.1 (Explosives) in the GHS
- Classification of flammable gases – establishment of a joint TDG-GHS informal working group
- Classification in Division 4.3 (Substances and mixtures which in contact with water emit flammable gases)
- Updating of references to OECD guidelines
- Use of cellulose in Test O.2 (test for oxidizing liquids) and Test O.3 (test for oxidizing solids)
- Use of the Manual of Tests and Criteria in the context of the GHS (GHS Sub-Committee agenda item 7)
- Draft Resolution 2015/...of the Economic and Social Council (GHS Sub-Committee agenda item 8)

2. The GHS Sub-Committee may also wish to note the outcome of the discussions of the TDG Sub-Committee on classification of polymerizing (stabilized) substances and classification and hazard communication provisions for crude oil.

Outcome of the discussions at the TDG Sub-Committee

3. The excerpts of the draft report¹ of the TDG Sub-Committee on its 46th session on matters of interest to the GHS Sub-Committee are reproduced below for information of the GHS Sub-Committee. The items are listed hereafter in the order in which they appear in the agenda for the 28th session of the GHS Sub-Committee.

Classification of UN No. 2211 (GHS Sub-Committee agenda item 2 (b) (i))

Document: ST/SG/AC.10/C.3/2014/77 - ST/SG/AC.10/C.4/2014/14 (CEFIC)

Information document: INF.12 (TDG) - INF.20 (GHS) (CEFIC)

“16. The Sub-Committee adopted the proposed procedure for de-classification of polymeric beads, expandable, where appropriate, on the basis of the proposal in informal document INF.20 with some amendments.”

For ease of reference, the adopted amendments to the original proposal are reproduced hereafter as adopted by the TDG Sub-Committee:

“Document ST/SG/AC.10/C.3/2014/77 adopted with the following modifications:

38.4.1 In the first sentence, delete “and 3314”.

38.4.2 and 38.4.3 Delete “and moulding compounds,” and “or UN No 3314,”.

38.4.4.2 Replace “rubber” by “polytetrafluoroethylene”.

38.4.4.3 Amend to read as follows:

“38.4.4.3 Procedure

The substance as offered for transport should be put in a serum flask of 50 ml, with a degree of filling of 50% volume ratio and sealed with polytetrafluoroethylene septa. The sealed flask is put into a heating cabinet at a minimum of 50°C for 14 days. Under these conditions analyse the gas twice on the GC and calculate the average concentration of the flammable vapour. The test shall be performed on three samples of the same substance.”.

38.4.4.4 Delete “or Plastics moulding compounds, evolving flammable vapours”.

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.1, and ST/SG/AC.10/C.3/2014/CRP.4.)

¹ The excerpts from the report are reproduced as adopted during the report reading on 9 December 2014. The final version of the report will be circulated as document ST/SG/AC.10/C.3/92, and will be made available at: <http://www.unece.org/trans/main/dgdb/dgsubc3/c3rep.html>.

Desensitized explosives (GHS Sub-Committee agenda item 2 (b) (i))

Document: ST/SG/AC.10/C.3/2014/81 - ST/SG/AC.10/C.4/2014/16 (Germany)

Information documents: INF.4 (TDG) - INF.4 (GHS)

INF.18 (TDG) - INF.11 (GHS)

“51. The Sub-Committee endorsed the proposal for introduction of a new Chapter 2.17 “Desensitized explosives” in the GHS and recommended its adoption by the GHS Sub-Committee. It was noted that the consequential amendments to the Manual of Tests and Criteria listed in ST/SG/AC.10/C.3/2014/2 submitted at the last session remained unchanged and the Sub-Committee agreed that they should be made if this new GHS chapter was adopted by the GHS Sub-Committee.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.9)

Classification of flammable gases (GHS Sub-Committee agenda item 2 (b) (i))

Information documents: INF.10/Rev.1 (TDG) - INF.5/Rev.1 (GHS) (Belgium and Japan)

INF.17 (TDG) - INF.10 (GHS) (CEFIC)

“57. Subject to concurrence by the GHS Sub-Committee, the Sub-Committee accepted the offer of the experts from Belgium and Japan to organize and host sessions of a joint TDG-GHS informal working group with the mandate described in paras (a) – (g) of INF.10/Rev.1, with the amendment that the analysis of the necessity to create GHS subdivisions for flammable gases should be limited to subdivisions within category 1.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.9, as amended)

Water-reactivity (GHS Sub-Committee agenda item 2 (b) (i))

Information document: INF.33 (TDG) - INF.18 (GHS) (United States of America)

“53. The Sub-Committee noted that the full report “HM-14: Test Procedures and Classification Criteria for Release of Toxic Gases from Water-Reactive Materials” had now been issued by the United States Transportation Research Board. Experts were invited to review it and to conduct trials and share the results. The Sub-Committee agreed that work should continue in the next biennium.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.9)

Classification of polymerizing (stabilized) substances (GHS Sub-Committee agenda item 2 (b) (i))

Document: ST/SG/AC.10/C.3/2014/82 (Germany and DGAC)

Informal documents: INF.34 (United States of America)

INF.75 (Germany, United States of America and DGAC)

“60. As there was no consensus as to whether polymerizing substances should be classified in Class 9 as proposed by Germany and DGAC or Division 4.1 as proposed by the United States of America, the question was put to the vote after long discussions and it was decided to include them in division 4.1. Once this decision taken, a drafting group met

to draft provisions taking account of comments made, that were consolidated in INF.75 which was adopted with some changes (see annex ...).”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.10)

Note by the secretariat: Adopted texts for the UN Model Regulations addressing classification of polymerizing (stabilized) substances are reproduced in Annex III to this document for ease of reference. No amendments have been proposed to the 5th revised edition of the GHS.

Classification of substances and mixtures which in contact with water emit flammable gases (GHS Sub-Committee agenda item 2 (b) (i))

Informal document: INF.54 (IATA)

“82. The proposal to align 2.4.4.3.3 with paragraph 33.4.1.4.4.1 (b) of the Manual of Tests and Criteria was adopted subject to the concurrence of the GHS Sub-Committee since table 2.12.1 in the GHS would also have to be amended accordingly.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.11)

Note by the secretariat: INF.54 is reproduced in Annex I to this document for ease of reference. The proposed amendments to the GHS are reproduced in Annex II to this document.

Classification and hazard communication provisions for crude oil (GHS Sub-Committee agenda item 2 (b) (ii))

Informal document: INF.37 (IPIECA)

“45. The Sub-Committee took note of the information provided following the discussions of document ST/SG/AC.10/C.3/2014/49, which had been submitted at the previous session to provide information on rail accidents involving crude oil in North America.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.6).

Corrosivity (GHS Sub-Committee agenda item 2 (d))

Revision of Chapter 2.8 of the Model Regulations

Documents: ST/SG/AC.10/C.3/2014/69 – ST/SG/AC.10/C.4/2014/12 (Netherlands)
ST/SG/AC.10/C.3/2014/99 – ST/SG/AC.10/C.4/2014/18 (United States of America)
ST/SG/AC.10/C.3/2014/104 (United Kingdom)

Informal documents: INF.3 (TDG) – INF.3 (GHS) (Netherlands)
INF.14 (TDG) – INF.6 (GHS) (CEFIC)
INF.15 (TDG) – INF.7 (GHS) (CEFIC)
INF.35 (TDG) – INF.20 (GHS) (United States of America)
INF.46 (TDG) – INF.21 (GHS) (Canada)
INF.60 (TDG) – INF.24 (GHS) (Netherlands)
INF.61 (TDG) – INF.25 (GHS) (Netherlands)
INF.71 (TDG) – INF.29 (GHS) (Netherlands)

70. After long discussions, there was no consensus on any one of the three options for a new Chapter 2.8 proposed in ST/SG/AC.10/C.3/2014/99 and informal documents INF.46 and INF.71. The remaining key difficulties brought up during the discussion were:

- (a) The application of a methodology for the additivity approach bearing in mind that the practice today and in future has to take account of professional judgement and weight of evidence; the GHS Sub-Committee should be asked to review and simplify this process;
- (b) The difficulty in assigning packing groups, and the unresolved concern whether the default classification should result in packing group I or II; those involved in classification (industry and competent authorities) should share more information on test results on mixtures of known composition;
- (c) The form of wording for transposing GHS text into the regulatory provisions of the Model Regulations, it being understood that some guidance can be provided in the Model Regulations in the form of notes under the regulatory requirements.

71. It was also suggested that the principles which had been agreed for the review of Chapter 2.8, as summarized in paragraph 2 of ST/SG/AC.10/C.3/2014/104 should not be forgotten; that the way classification and assignment to packing groups is carried out currently by practitioners should be better identified, studied and taken into account; that assignment to packing groups might be disconnected from the classification in sub-categories 1A, 1B and 1C, and whether these sub-categories are effectively used in sectors other than transport should be checked; and that concentration limits should be looked at more closely.

72. The Sub-Committee expressed sincere thanks to all those who had participated in this work, notably the chairman of the Joint TDG/GHS working group on corrosivity criteria and the expert from the Netherlands, but concluded that further work would be necessary in the next biennium before a final decision could be envisaged.

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.11, as amended)

Applicability of in vitro tests for the assessment of substances and preparations to be assigned to Class 8

Informal document: INF.13 (CEFIC)

73. The Sub-Committee felt that this proposal of amendment to 2.8.2.4 should be discussed in the next biennium in the context of the review of Chapter 2.8, and CEFIC was invited to submit an official proposal. The question of how to deal with new versions of OECD Test Guidelines in Chapter 2.8 should also be addressed.

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.11)

Wording regarding the property “Corrosive to metals”

Informal document: INF.29 (Austria)

74. The Sub-Committee felt that it was not necessary to amend the current text of 2.8.2.5 (c) (ii) because the NOTE made it clear that it is not necessary to perform the test on a second metal if the test on a first metal gives a positive result, but it is necessary to perform a test on a second metal if the test on a first metal gives a negative result. As a consequence, the expert from Austria withdrew this proposal.

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.11)

Pyrophoric gases (GHS Sub-Committee agenda item 2 (h))

Document: ST/SG/AC.10/C.3/2014/91 - ST/SG/AC.10/C.4/2014/17 (United States of America)

“52. The Sub-Committee took note of the answers to questions raised at the last session and confirmed its endorsement of the list of amendments provisionally adopted by the GHS Sub-Committee at its last session for the inclusion of pyrophoric gases as a hazard category in the flammable gases hazard class of the GHS.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.9)

Updating of references to OECD Guidelines (GHS Sub-Committee agenda item 2 (h))

Informal document: INF.22 (TDG) – INF. 14 (GHS) (OECD)

“58. The Sub-Committee noted that some references to OECD Guidelines in the GHS had to be updated, and the decisions of the GHS Sub-Committee would have effects on some provisions of the Model Regulations. If needed and where relevant the secretariat was requested to bring the corresponding provisions of the Model Regulations in line with those of the GHS if amended.

59. Regarding the question of referring to non-dated Guidelines, it was recalled that the normal practice for the Model Regulations was to refer to specific dated standards and to check, before referring to newly updated standards that they were suitable for inclusion in the Model Regulations.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.9, as amended)

Proposal for review of Chapter 2.1 (Explosives) in the GHS (GHS Sub-Committee agenda item 7)

Document: ST/SG/AC.10/C.3/2014/79 - ST/SG/AC.10/C.4/2014/15 (Australia and AEISG)

“54. The Sub-Committee noted that the GHS Sub-Committee had agreed to review Chapter 2.1 of the GHS to address issues with classification and hazard communication for explosives during manufacture, storage, handling and use when the explosives are not packaged for transport and was seeking the involvement of the TDG Sub-Committee and its Working Group on Explosives.

55. The Sub-Committee noted also that the expert from Australia proposed to lead a correspondence working group for that purpose. The Sub-Committee had no objection to the establishment of a correspondence working group, but felt that, as it was focal point for physical hazards, including for questions not related to transport, the work should be done at the level of the Working Group on Explosives and that any correspondence group or informal group established in this context should submit its proposals to the TDG Sub-Committee for consideration by the Working Group on Explosives, and that all experts concerned of both sub-committees should participate in the work of the correspondence group and of the Working Group on Explosives. Therefore the expert from Australia was invited to liaise with the Chairman of the Working Group on Explosives.

56. A member of the secretariat recalled that proposals should be submitted as official documents 12 weeks before the opening of the TDG Sub-Committee session.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.9)

Use of cellulose in Test O.2 (test for oxidizing liquids) and Test O.3 (test for oxidizing solids) (GHS Sub-Committee agenda item 7)

Document: ST/SG/AC.10/C.3/2014/95 - ST/SG/AC.10/C.4/2014/19 (France)

“63. The inclusion of the “classification and testing of oxidizing liquids and solids” in the programme of work had already been approved by the TDG and GHS sub-committees at their last session. The Sub-Committee approved the calendar for the testing programme proposed by the expert from France. Ten laboratories are participating in this work. Others wishing to do so should contact the expert from France.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.10, as amended)

Use of the Manual of Tests and Criteria in the context of the GHS (GHS Sub-Committee agenda item 7)

Informal documents: INF.44 (TDG) - INF.19 (GHS) (Secretariat)

INF.53 (TDG) (United Kingdom)

“65. The Sub-Committee agreed to review the Manual of Tests and Criteria to include relevant references to the GHS, in accordance with the mandate as proposed in INF.44.

66. All delegations were reminded that they should provide their comments on the first draft prepared by the secretariat in informal documents INF.8 and Add 1-5 submitted at the last session, in the same way as done by the expert from the United Kingdom in INF.53. The secretariat was invited to prepare an updated version of this draft taking account of comments received before [...]”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.10)

Draft Resolution 2015/...of the Economic and Social Council (GHS Sub-Committee agenda item 8)

Informal document: INF.16 (TDG) – INF.9 (GHS) (Secretariat)

“68. The expert from China underlined that it would be difficult to provide in an exhaustive way the information requested in the proposal by Belgium. It was clarified that the situation was the same in some other States, in particular federal States, and that if full information could not be provided, communication of the contact details of an authority that could act as focal point for the country would already be very useful to enhance cooperation between governments.

69. The Sub-Committee adopted, without any objection, parts A and B of the proposed draft resolution.”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.3/Add.10, as amended)

Annex I

The secretariat reproduces hereafter the text of informal document INF.54 from IATA, submitted to the 46th session of the TDG Sub-Committee.

UN/SCETDG/46/INF.54

**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

27 November 2014

Forty-sixth session

Geneva, 1 – 9 December 2014

Item 7 of the provisional agenda

New proposals for amendments to the Model Regulations on the Transport of Dangerous Goods

Classification in Division 4.3

Transmitted by the International Air Transport Association (IATA)

Introduction

1. An issue has been raised with respect to a slight inconsistency in the language in paragraph 2.4.4.2 (b) related to the criteria for assignment of a substance to Division 4.3, which states that a substance shall be classified in Division 4.3 if the evolution of gas is at a rate **greater than** 1 litre per kilogram of substance per hour material compared to paragraph 2.4.4.3.3 which determines assignment to packing group III, which applies where the maximum rate of evolution of flammable gas is **equal to or greater** than 1 litre per kilogram of substance per hour.
2. The provisions of the Manual of Tests and Criteria, paragraph 33.4.1.4.4.1 (b) regarding classification of Division 4.3 and paragraph 33.4.1.4.4.4 regarding assignment to packing group III are both aligned to paragraph 2.4.4.2 (b) in the Model regulations in applying the criteria where the evolution of flammable gas is **greater than** 1 litre per kilogram of substance per hour.
3. However, Table 2.12.1, category 3 in the GHS that sets out the criteria for substances and mixtures which, in contact with water, emit flammable gases states “maximum rate of evolution of flammable gas is **equal to or greater** than 1 litre per kilogram of substance per hour”.
4. Considering the language in the Manual of Tests and Criteria and the wording of 2.4.4.1 (b) it is suggested that the criteria for classification in Division 4.3 and assignment to packing group III should be where the evolution of flammable gas is **greater than** 1 litre per kilogram of substance per hour.
5. It is proposed therefor to modify the wording of paragraph 2.4.4.3.3 to align to this. The Subcommittee is also invited to advise the GHS Subcommittee of this minor amendment such that Table 2.12.1 can be amended accordingly.

Proposal

6. Amend paragraph 2.4.4.3.3 as follows:
2.4.4.3.3 Packing group III shall be assigned to any substance which reacts slowly with water at ambient temperatures such that the maximum rate of evolution of flammable gas is ~~equal to or~~ greater than 1 litre per kilogram of substance per hour, and which does not meet the criteria for packing groups I or II.”

Annex II

Proposed draft amendments to the 5th revised edition of the GHS (ST/SG/AC.10/30/Rev.5)

Chapter 2.12, Table 2.12.1, criteria for Category 3

Replace “equal to or greater than 1 litre per kilogram of substance” by “greater than 1 litre”

(Reference doc: ST/SG/AC.10/C.3/2014/CRP.4/Add.6)

Annex III

Classification of polymerizing (stabilized) substances

Draft amendments to the 18th revised edition of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations (ST/SG/AC.10/1/Rev.18)

(Reference document: ST/SG/AC.10/C.3/2014/CRP.4/Add.5)

Chapter 1.2

1.2.1 Insert a new a new definition in alphabetical order to read as follows:

“*Self-accelerating polymerization temperature (SAPT)*” is defined as the lowest temperature at which polymerization may occur with a substance in the packaging, IBC or portable tank as offered for transport. The SAPT shall be determined in accordance with the test procedures established for the self-accelerating decomposition temperature for self-reactive substances in accordance with the Manual of Tests and Criteria.”

(Reference document: ST/SG/AC.10/C.3/CRP.4/Add.5)

Chapter 2.2

Insert a new paragraph 2.2.4 to read as follows:

“2.2.4 Gases not accepted for transport

Chemically unstable substances of Class 2 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 or unless transported in accordance with P200, special packing provision “r”, as applicable. 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: ST/SG/AC.10/C.3/CRP.4/Add.5, as amended)

Chapter 2.3

Insert a new paragraph 2.3.5 to read as follows:

“2.3.5 Substances not accepted for transport

Chemically unstable substances of Class 3 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: ST/SG/AC.10/C.3/CRP.4/Add.5, as amended)

Chapter 2.4

2.4.1.1 (a) Insert “and polymerizing substances” after “through friction; self-reactive substances” so that the definition of Division 4.1 flammable solids reads as follows:

“(a) Division 4.1 *Flammable solids*

Solids which, under conditions encountered in transport, are readily combustible or may cause or contribute to fire through friction; self-reactive substances and polymerizing substances which are liable to undergo a strongly exothermic reaction; solid desensitized explosives which may explode if not diluted sufficiently;”.

(Reference document: informal document INF.75)

2.4.1.2 Insert a new subparagraph (c) to read as follows:

“(c) Polymerizing substances (Division 4.1);”.

Re-number subparagraphs (c) to (f) as (d) to (g) respectively.

(Reference document: informal document INF.75)

2.4.2 Insert a new paragraph 2.4.2.5 to read as follows:

“2.4.2.5 Division 4.1 Polymerizing substances and mixtures (stabilized)

2.4.2.5.1 *Definitions and properties*

Polymerizing substances are substances which, without stabilization, are liable to undergo a strongly exothermic reaction resulting in the formation of larger molecules or resulting in the formation of polymers under conditions normally encountered in transport. Such substances are considered to be polymerizing substances of Division 4.1 when:

- (a) Their self-accelerating polymerization temperature (SAPT) is 75 °C or less under the conditions (with or without chemical stabilization as offered for transport) and in the packaging, IBC or portable tank in which the substance or mixture is to be transported;
- (b) They exhibit a heat of reaction of more than 300 J/g; and
- (c) They do not meet any other criteria for inclusion in Classes 1-8.

A mixture meeting the criteria of a polymerizing substance shall be classified as a polymerizing substance of Division 4.1.

2.4.2.5.2 Polymerizing substances are subject to temperature control in transport if their self-accelerating polymerization temperature (SAPT) is:

- (a) When offered for transport in a packaging or IBC, 50 °C or less in the packaging or IBC in which the substance is to be transported; or
- (b) When offered for transport in a portable tank, 45 °C or less in the portable tank in which the substance is to be transported.

2.4.2.5.3 Polymerizing substances that also meet the criteria of 2.9.3 shall be consigned under the appropriate polymerizing substance entry.”.

(Reference document: informal document INF.75)

Chapter 2.6

Insert a new paragraph 2.6.2.5 to read as follows:

“2.6.2.5 Substances not accepted for transport

Chemically unstable substances of Division 6.1 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.75)

Chapter 2.8

Insert a new paragraph 2.8.3 to read as follows:

“2.8.3 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.75)

Chapter 3.1

3.1.2.6 Amend the introductory sentence, before subparagraphs (a) and (b), and subparagraph (a) to read as follows:

“3.1.2.6 When temperature control is used to stabilize such substances to prevent the development of any dangerous excess pressure or the evolution of excessive heat, or when chemical stabilization is used in combination with temperature control, then:

- (a) For liquids and solids where the SAPT (measured without or with inhibitor, when chemical stabilization is applied) is less than or equal to that prescribed in 2.4.2.5.2, special provision 386 of Chapter 3.3 and the provisions of 7.1.6 apply;”

(Reference document: informal document INF.75 as amended)

Chapter 3.2, Dangerous Goods List

For UN Nos. 1010, 1051, 1060, 1081, 1082, 1085, 1086, 1087, 1092, 1093, 1143, 1167, 1185, 1218, 1246, 1247, 1251, 1301, 1302, 1303, 1304, 1545, 1589, 1614, 1724, 1829, 1860, 1917, 1919, 1921, 1991, 2055, 2200, 2218, 2227, 2251, 2277, 2283, 2383, 2348, 2352, 2396, 2452, 2521, 2527, 2531, 2607, 2618, 2838, 3022, 3073 and 3079, in column (6) insert “386”.

(Reference document: informal document INF.75 as amended)

Add the following entries:

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)
3531	POLYMERIZING SUBSTANCE, SOLID, STABILIZED, N.O.S.	4.1		III	274 386	0	E0	P002 IBC07	PP92 B18	T7	TP4 TP6 TP33

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)
3532	POLYMERIZING SUBSTANCE, LIQUID, STABILIZED, N.O.S.	4.1		III	274 386	0	E0	P001 IBC03	PP93 B19	T7	TP4 TP6
3533	POLYMERIZING SUBSTANCE, SOLID, TEMPERATURE CONTROLLED, N.O.S.	4.1		III	274 386	0	E0	P002 IBC07	PP92 B18	T7	TP4 TP6 TP33
3534	POLYMERIZING SUBSTANCE, LIQUID, TEMPERATURE CONTROLLED, N.O.S.	4.1		III	274 386	0	E0	P001 IBC03	PP93 B19	T7	TP4 TP6

(Reference document: *ST/SG/AC.10/C.3/CRP.4/Add.5, as amended*)

Chapter 3.3

3.3.1 Add new special provision to read as follows:

“386 When substances are stabilized by temperature control, the provisions of 7.1.6 apply. When chemical stabilization is employed, the person offering the package, IBC or tank for transport shall ensure that the level of stabilization is sufficient to prevent the substance in the package, IBC or tank from dangerous polymerization at a bulk mean temperature of 50 °C, or, in the case of a portable tank, 45 °C. Where chemical stabilization becomes ineffective at lower temperatures within the anticipated duration of transport, temperature control is required. In making this determination factors to be taken into consideration include, but are not limited to, the capacity and geometry of the package, IBC or tank and the effect of any insulation present, the temperature of the substance when offered for transport, the duration of the journey and the ambient temperature conditions typically encountered in the journey (considering also the season of year), the effectiveness and other properties of the stabilizer employed, applicable operational controls imposed by regulation (e.g. requirements to protect from sources of heat, including other cargo carried at a temperature above ambient) and any other relevant factors.”.

(Reference document: *informal document INF.75*)

Chapter 4.1

4.1.4.1 For packing instruction P001, add a new special packing provision “PP93” to read:

“PP93 For UN Nos. 3532 and 3534, packagings shall be designed and constructed to permit the release of gas or vapour to prevent a build-up of pressure that could rupture the packagings in the event of loss of stabilization.”.

(Reference document: *informal document INF.75*)

4.1.4.1 For packing instruction P002, add a new special packing provision “PP92” to read:

“PP92 For UN Nos. 3531 and 3533, packagings shall be designed and constructed to permit the release of gas or vapour to prevent a build-up of pressure that could rupture the packagings in the event of loss of stabilization.”.

(Reference document: *informal document INF.75*)

4.1.4.2 For packing instruction IBC03, add a new special packing provision “B19” to read:

“B19 For UN Nos. 3532 and 3534, IBCs shall be designed and constructed to permit the release of gas or vapour to prevent a build-up of pressure that could rupture the IBCs in the event of loss of stabilization.”.

(Reference document: informal document INF.75)

4.1.4.2 For packing instruction IBC07, add a new special packing provision “B18” to read:

“B18 For UN Nos. 3531 and 3533, IBCs shall be designed and constructed to permit the release of gas or vapour to prevent a build-up of pressure that could rupture the IBCs in the event of loss of stabilization.”.

(Reference document: informal document INF.75)

Chapter 7.1

7.1.6.1 Amend to read as follows:

“7.1.6.1 These provisions apply to the transport of substances for which:

- (a) The proper shipping name as indicated in column 2 of the dangerous goods list or according to 3.1.2.6 contains the word “STABILIZED” and
- (b) The SADT or the SAPT* determined for the substance (with or without chemical stabilization) as offered for transport is:
 - (i) 50 °C or less for packagings and IBCs; or
 - (ii) 45 °C or less for portable tanks.”.

Footnote * reads as follows: “* *The self-accelerating polymerization temperature (SAPT) shall be determined in accordance with the Manual of Tests and Criteria. The SADT tests in Section 28, Series H as appropriate may be equally applied to determine a self-accelerating polymerization temperature.*”.

(Reference document: informal document INF.75)

7.1.6.2 At the end, add: “, except that the term “SADT” as used in these paragraphs is understood to include also “SAPT” when the substance concerned reacts by polymerization”.

7.1.6.4 Delete.

7.1.6.5 Renumber as 7.1.6.4.

(Reference document: informal document INF.75)
