



**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 fortieth session**

held in Geneva from 28 November to 7 December 2011

Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Attendance.....	1–6	5
II. Opening of the session	7–10	5
III. Adoption of the agenda (agenda item 1)	11	6
IV. Listing, classification and packing (agenda item 2)	12–35	6
A. Proposals of amendments to the list of dangerous goods of Chapter 3.2	12–16	6
1. Special provision 135: Classification of dichloroisocyanuric acid salts	12	6
2. Classification of packing of asbestos	13	7
3. Classification of mercurous chloride	14	7
4. New UN number and special provision for a new type of confetti-shooters.....	15	7
5. Transport of heat pipes	16	7
B. Classification of Class 3 viscous liquids in packing group III.....	17–18	7
C. Miscellaneous	19–35	8
1. Amendment to the classification flow chart/decision logic for self-reactive substances and organic peroxides.....	19	8
2. Classification under UN Nos 2211 and 3314 (POLYMERIC BEADS EXPANDABLE, evolving flammable vapour and PLASTICS MOULDING COMPOUNDS, in dough, sheet or extruded rope form evolving flammable vapour)	20	8

3.	Classification of mixtures containing an environmentally hazardous substance component.....	21–22	8
4.	Dried blood spots and faecal occult blood screening tests	23	9
5.	“Torch” cigarette lighters containing lithium metal batteries.....	24	9
6.	IBC packing instruction requirements for solids that may become liquid	25–27	9
7.	Special provision 335: Exemption for small quantities of environmentally hazardous substances.....	28	9
8.	Light bulbs containing small quantities of dangerous goods.....	29	10
9.	Uncleaned waste packagings having contained dangerous goods.....	30–33	10
10.	Amendments to packing instruction P 602.....	34	10
11.	Adsorbed toxic gases.....	35	10
V.	Electric storage systems (agenda item 3)	36–44	11
A.	Waste or damaged/defective lithium cells	36–39	11
1.	Transport of waste lithium cells and batteries	36–37	11
2.	Transport of damaged or defective lithium cells and batteries	38–39	11
B.	Packagings for large batteries	40–41	11
C.	Miscellaneous	42–44	12
1.	Lithium battery mark.....	42–43	12
2.	Containerized lithium ion battery systems	44	12
VI.	Miscellaneous proposals of amendments to the Model Regulations on the Transport of Dangerous Goods (agenda item 4).....	45–74	12
A.	Packagings	45–58	12
1.	Large salvage packagings.....	45	12
2.	References to ISO standards.....	46–47	13
3.	Definitions of multiple element gas containers and tubes	48–51	13
4.	Sample pressure receptacles: Possibility for conformity assessment and UN marking	52–56	13
5.	Packagings with a capacity exceeding 450 litres (6.1.1.1 (d))	57–58	14
B.	Portable tanks.....	59–64	14
1.	Internal inspection of portable tanks used for the transport of water-reactive organometallic substances	59–61	14
2.	Transitional periods for UN portable tanks intended for the transport of liquids	62–64	15
C.	Marking and labelling.....	65–74	15
1.	Fumigation warning mark and coolant/conditioning unit warning mark	65–67	15
2.	Revised proposals for the descriptions of labels placards, symbols, markings and marks	68–69	16

3.	Marking of the date of manufacture with packagings of types 1H and 3H.....	70	16
4.	Interpretation and clarification of 5.2.1.1 and 5.4.1.4 in multimodal transport	71–74	16
VII.	Electronic data interchange for documentation purposes (agenda item 5).....	75–78	16
VIII.	Cooperation with the International Atomic Energy Agency (agenda item 6)	79–96	17
A.	Provisions for uranium hexafluoride with less than 0.1 kg per package	79–88	17
B.	TRANSSC Review of proposed changes to the United Nations Model Regulations.....	89–92	18
C.	Revision of the IAEA Regulations for the Safe Transport of Radioactive Material (2009 edition)	93–94	19
D.	Special provision 172	95	19
E.	Corrections to the Model Regulations	96	19
IX.	Global harmonization of transport of dangerous goods regulations with the Model Regulations (agenda item 7).....	97–121	19
A.	International Maritime Dangerous Goods (IMDG) Code.....	97–111	19
B.	RID/ADR/ADN	112–119	21
1.	Outcome of the autumn 2010 session of the RID/ADR/ADN Joint Meeting.....	112–117	21
2.	Outcome of the autumn 2011 session of the RID/ADR/ADN Joint Meeting.....	118–119	22
C.	Outcome of the ICAO Dangerous Goods Panel session.....	120–121	22
X.	Guiding Principles for the Model Regulations (agenda item 8).....	122	23
XI.	Issues relating to the Globally Harmonized System of Classification and Labelling of Chemicals (agenda item 9).....	123–137	23
A.	Corrosivity criteria.....	123–130	23
B.	Criteria for water-reactivity	131–133	24
C.	Miscellaneous	134–137	24
1.	Classification of desensitized explosives for the purposes of supply and use.....	134–135	24
2.	Substances and mixtures with explosive properties which are exempted from classification as explosives.....	136–137	25
XII.	Other business (agenda item 10)	138–147	25
A.	Requests for consultative status	138–140	25
1.	Fertilizers Europe	138	25
2.	Dangerous Goods Trainers Association, Inc (DGTA)	139	25
3.	Global Lighting Forum (GLF)	140	25
B.	Economic and Social Council's resolution 2011/25	141	26

C.	Condolences.....	142	26
D.	Issues related to fireworks	143	26
E.	Programme or work for 2012-2013, biennial evaluations, and strategic framework for 2014-2015	144–146	26
F.	Decade of action for road safety	147	27
XIII.	Adoption of the report (agenda item 11)	148	27

Annexes

I.	Draft amendments to the seventeenth revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations		28
II.	Corrections to the seventeenth revised edition of the Recommendations on the Transport of Dangerous Goods Model Regulations		35
III.	Proposals of amendments to the fourth revised edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)		36

Report

I. Attendance

1. The Sub-Committee of Experts on the Transport of Dangerous Goods held its fortieth session from 28 November to 7 December 2011 with Mr J. Hart (United Kingdom) as Chairman and Mr. C. Pfauvadel (France) as Vice-Chairman.
2. Experts from the following countries took part in this session: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Finland, France, Germany, Japan, Kenya, Mexico, Netherlands, Norway, Republic of Korea, Russian Federation, South Africa, Spain, Sweden, Switzerland, United Kingdom and United States of America.
3. Under rule 72 of the rules of procedure of the Economic and Social Council, observers from Romania also took part.
4. The Intergovernmental Organisation for International Carriage by Rail (OTIF) was also represented.
5. Representatives of the International Atomic Energy Agency (IAEA), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO) and the World Health Organization (WHO) were also present.
6. Representatives of the following non-governmental organizations took part in the discussion of items of concern to their organizations: American Biological Safety Association (ABSA); Australian Explosives Industry Safety Group (AEISG); Compressed Gas Association (CGA); Council on Safe Transportation of Hazardous Articles (COSTHA); Dangerous Goods Advisory Council (DGAC); Dangerous Goods Trainers Association (DGTA); European Battery Recycling Association (EBRA); European Battery Recycling Association (EBRA); European Industrial Gases Association (EIGA); European Metal Packaging (EMPAC); Global Lighting Forum (GLF); International Air Transport Association (IATA); International Association for the Promotion and Management of Portable Rechargeable Batteries (RECHARGE); International Association for Soaps, Detergents and Maintenance Products (AISE); International Confederation of Container Reconditioners (ICCR); International Confederation of Drum Manufacturers (ICDM); International Confederation of Plastics Packaging Manufacturers (ICPP); International Council of Chemical Associations (ICCA); International Council of Intermediate Bulk Container Associations (ICIBCA); International Dangerous and Containers Association (IDGCA); International Federation of Airline Pilot's Association (IFALPA); International Federation of Freight Forwarders Associations (FIATA); International Fibre Drum Institute (IFDI); International Organization for Standardization (ISO); International Petroleum Industry Environmental Conservation Association (IPIECA); International Tank Container Organisation (ITCO); International Vessel Operators Dangerous Goods Association (IVODGA); KiloFarad International (KFI); Portable Rechargeable Battery Association (PRBA); Responsible Packaging Management Association of Southern Africa (RPMASA); Sporting Arms and Ammunition Manufacturers' Institute (SAAMI); and World Nuclear Transport Institute (WNTI).

II. Opening of the session

7. Ms. Eva Molnar, the Director of the United Nations Economic Commission for Europe (UNECE) Transport Division, welcoming the participants, informed the Sub-Committee of budget cuts that would affect the UNECE secretariat as part of the 2012–

2013 programme budget and reported on discussions currently under way to review the reform of UNECE conducted in 2005. She also thanked the Sub-Committee's experts and observers who had actively participated or contributed to the success of the round table on "Transport of dangerous goods: Global and regional dimensions", held on 1 March 2011, during the annual session of the UNECE Inland Transport Committee. She informed the Sub-Committee that the subject of the policy-oriented segment at the next session (28 February 2012) would be intelligent transport systems, and invited all interested delegates to take part.

8. She also recalled that UNECE did not only provide secretariat services to the Sub-Committee and to the Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS Sub-Committee), but also ensured the effective implementation of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations, for inland transport regionally, in particular by means of RID, ADR and ADN. She invited the Sub-Committee's experts from other regions to ensure implementation of the Model Regulations in their national legislation, and also to promote it in their respective regions – Asia and the Pacific, Africa, the Middle East, North America and Latin America and the Caribbean.

9. The Chairman, speaking on behalf of the Sub-Committee, expressed his satisfaction with the service provided by the UNECE secretariat and his hope that the reforms currently under way would not be detrimental to its work. While at first sight the mandate of UNECE was a regional one, the services provided by its secretariat in the field of the transport of dangerous goods and GHS were of concern to the entire world, and that should be taken into consideration during discussions on resourcing. He also endorsed the Director's call for a more active promotion of the Model Regulations in the other regions.

10. Mr. Ed de Jong (Netherlands), in his capacity as Chairman of the Working Group on Explosives informed the Sub-Committee of progress made intersessionally, amongst other subjects on the difficulties in carrying out tests described in the Manual of Tests and Criteria and on the solid oxidizer test (O.1). He expected that a sufficient number of documents would be submitted at the next session, but most of these documents would probably be late informal documents.

III. Adoption of the agenda (agenda item 1)

Documents: ST/SG/AC.10/C.3/79 (Provisional agenda)
ST/SG/AC.10/C.3/79/Add.1 (List of documents)

Informal documents: INF.1, INF.2/Rev.1 (List of documents)
INF.22 (Provisional timetable)

11. The Sub-Committee adopted the provisional agenda prepared by the secretariat after amending it to take account of informal documents (INF.1 to INF.51).

IV. Listing, classification and packing (agenda item 2)

A. Proposals of amendments to the list of dangerous goods of Chapter 3.2

1. Special provision 135: Classification of dichloroisocyanuric acid salts

Document: ST/SG/AC.10/C.3/2011/22 (DGAC)

12. The Sub-Committee agreed that while the salt in question did not meet the criteria of division 5.1, it might meet the criteria of other classes, for example those for hazards to the

aquatic environment. The special provision was consequently amended (see annex I). However, some experts requested detailed information on the salt, in order to make it possible to indicate its precise classification. It was also noted that other special provisions of the same kind could require similar amendment. DGAC was invited to consider preparing further amendments at a later session.

2. Classification and packing of asbestos

Document: ST/SG/AC.10/C.3/2011/44 (Australia)

Informal document: INF.31 (IDGCA)

13. Most experts opposed the proposal by Australia, as they considered that it was insufficiently supported from the scientific point of view. Some experts noted that the use of asbestos had been prohibited in many countries and that its carriage most often concerned goods resulting from asbestos removal. While the current provisions were thus satisfactory, they were not opposed to improving them. The expert from Australia withdrew the paper so that further consideration could be given to this matter and requested interested parties to provide written comments.

3. Classification of mercurous chloride

Informal document: INF.11 (United Kingdom)

14. The Sub-Committee agreed that mercurous chloride should be carried as a substance of division 6.1, packing group III, but since it was not carried in significant quantities internationally, it should be classified under UN No. 2025, mercury compound, solid, n.o.s. Special Provision 66 should be amended accordingly and an entry referring to UN No. 2025 should be included in the alphabetical index (see annex I).

4. New UN number and special provision for a new type of confetti-shooters

Informal document: INF.23 (Germany)

15. The expert from Germany took note of the comments of the Sub-Committee and said that she would prepare an official proposal for the next session.

5. Transport of heat pipes

Informal document: INF.37 (Spain)

16. The expert from Spain withdrew this document and said that she might raise the issue at the next session.

B. Classification of Class 3 viscous liquids in packing group III

Documents: ST/SG/AC.10/C.3/78, paras. 38–41 (DGAC) and annexes II and III (Report of the Sub-Committee on its thirty-ninth session)
ST/SG/AC.10/C.3/2011/47 (Outcome of the autumn session of the RID/ADR/ADN Joint Meeting) (paras. 53–55)

Informal document: INF.40 (ICAO) (Information on decisions taken by the ICAO Dangerous Goods Panel) (paras. 6–8)

17. The Sub-Committee noted that the IMO Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC Sub-Committee) had decided to maintain the limit for

carriage at 30 litres, without indicating why such a limit was included in the IMDG Code. ICAO pointed out that a limit of 450 litres exceeded by far the maximum quantities allowed for air transport, but that a quantity of 100 litres would be acceptable for cargo aircraft. For inland transport, the RID/ADR/ADN Joint Meeting had reported that no safety issues had been reported with the current limit of 450 litres, and had considered that it would be necessary to consult with the industry to measure the economic consequences of reducing the limit, if that was the intention, in particular if it was lowered to 30 litres.

18. The Sub-Committee agreed to maintain the 450 litre limit for the Model Regulations, even if ICAO and IMO applied more stringent restrictions when they considered them necessary for safety considerations applying to their specific modes.

C. Miscellaneous

1. Amendments to the classification flow chart/decision logic for self-reactive substances and organic peroxides

Document: ST/SG/AC.10/C.3/2011/29 (ICCA)

19. Several delegations noted that there was a contradiction in alternative 1 between the approaches proposed for the Model Regulations and GHS, and that there were also some contradictions between the proposed diagram and the conditions of transport, for example in respect of the quantities authorized in the packagings under instruction P520. Following the discussion, the representative of ICCA withdrew the proposal and indicated that he would submit a new one along the lines of alternative 2, without necessitating an amendment to the principles used for classification.

2. Classification under UN Nos. 2211 and 3314 (POLYMERIC BEADS, EXPANDABLE, evolving flammable vapour and PLASTICS MOULDING COMPOUNDS, in dough, sheet or extruded rope form evolving flammable vapour)

Document: ST/SG/AC.10/C.3/2011/30 (ICCA)

Informal document: INF.32 (ICCA)

20. The Sub-Committee noted that there were currently expandable polymeric beads and moulding plastics on the market which met the description of UN Nos. 2211 and 3314, but which evolved only negligible quantities of flammable vapour. Some experts, while therefore supporting the proposal to exempt certain types of those substances, said that they would prefer a more conservative approach, noting that accidents had occurred with those substances. It would thus be necessary to make provision for a hazard assessment method on the basis of tests which could be included in the Manual of Tests and Criteria, taking into consideration the high temperatures that could be encountered in certain regions of the world. The representative of ICCA said that he would submit a new proposal at the next session.

3. Classification of mixtures containing an environmentally hazardous substance component

Document: ST/SG/AC.10/C.3/2011/38 (ICCA)

21. Opinions differed on the document. Some experts considered that for the example in question (acetone mixed with an environmentally hazardous substance), the current provisions were clear and 2.0.2.9 should apply, which would lead to classification under an n.o.s. entry. Other experts considered that the proposal was worthy of support, as from the safety standpoint they considered that it would be preferable to use UN No. 1090, ACETONE SOLUTION in the case in question.

22. The representative of ICCA was invited to submit a new proposal, taking the comments into consideration, supporting the proposal with more specific examples of the various classifications by the industry and highlighting the consequences for conditions of transport.

4. Dried blood spots and faecal occult blood screening tests

Document: ST/SG/AC.10/C.3/2011/27 (WHO)

Informal documents: INF.34 and INF.41 (Germany)

23. The Sub-Committee adopted the amendments to 2.6.3.2.3.5 proposed by WHO, deleting, however, the reference to criteria for inclusion in another class, as such spots and samples were unlikely to meet such criteria. Moreover, an additional exemption for samples taken for purposes of transfusion or transplant was added to 2.6.3.2.3.7 and placed in square brackets, to be confirmed at the next session (see annex I).

5. “Torch” cigarette lighters containing lithium metal batteries

Document: ST/SG/AC.10/C.3/2011/43 (United Kingdom)

24. The Sub-Committee noted the issues raised by new cigarette lighters containing lithium cells. The expert from China offered to make available his scientific expertise to better determine the risks involved, and the expert from the United Kingdom was to prepare a proposal, taking into consideration the various comments made.

6. IBC packing instruction requirements for solids that may become liquid

Document: ST/SG/AC.10/C.3/2011/45 (DGAC)

25. DGAC proposed to reverse a decision taken in 2008 according to which IBCs approved for the carriage of liquids should not be used for the transport of solids. The decision prevented the use of such IBCs for the carriage of solids that might become liquid during transport. Such a practice had previously been accepted, and it had never led to any safety problems.

26. Several experts opposed the proposal, as it was in contradiction with the principle according to which IBCs should be tested as prepared for actual transport. There was no guarantee that an IBC tested for the carriage of liquids would pass the tests for solids. The testing conditions were different, in particular in respect of the degree of filling for the drop test, and liquids and solids performed differently in drop tests in terms of energy absorption. Before a decision was taken, it would be preferable for manufacturers and testing bodies to submit data comparing drop test results for the same IBCs filled with solids and with liquids. Furthermore, that it would undermine the Sub-Committee’s credibility if it cancelled decisions it had recently taken. There would be consequences for training, and there would also be a risk that misunderstandings would arise with the inspection services.

27. At the request of several experts, the proposal was put to the vote, and was adopted (see annex I).

7. Special provision 335: Exemption for small quantities of environmentally hazardous substances

Document: ST/SG/AC.10/C.3/2011/42 (ICCA)

28. Some experts considered that the current regulations were satisfactory and that there was no need to complicate the Model Regulations with new exemptions for a limited range

of packagings. Others experts believed that the proposal had merit. The representative of ICCA said that he would submit a revised proposal for the next session.

8. Light bulbs containing small quantities of dangerous goods

Informal document: INF.12 (United Kingdom)

29. The Sub-Committee acknowledged that the transport of light bulbs containing dangerous goods, including waste light bulbs, was an issue to be addressed. Most experts were in favour of a comprehensive approach. The representative of GLF was invited to provide the expert from the United Kingdom with detailed information on the dangerous substances contained currently in these light bulbs and those likely to be contained in the future taking account of technology developments, so that she may prepare a formal proposal for the next session.

9. Uncleaned waste packagings having contained dangerous goods

Informal documents: INF.24 (United Kingdom)
INF.43 (ICPP, ICCR, ICIBCA, ICDM and EMPAC)

30. The Sub-Committee noted that, due to environmental legislation in Europe concerning the collection of waste packagings for recycling or disposal, it had become urgent for European countries to develop provisions for the transport of such waste packagings contaminated by dangerous goods residues, and that this subject had been under discussion for several years at sessions of the RID/ADR/ADN Joint Meeting.

31. Some experts were not convinced that there was a need for such provisions in the Model Regulations since the issue could be addressed locally or regionally. Others felt that such waste packagings should not be carried if the hazard has not been nullified, or that, in any case, precautions had to be taken in particular as regards waste packagings contaminated with toxic substances and segregation of waste packagings contaminated with dangerous goods that could react on contact with each other.

32. It was confirmed that such waste packagings were also carried by sea for recycling, not only in European countries from islands to the continent, but also on long distances e.g. from South Africa to China, and therefore it was relevant to address the question in the Model Regulations.

33. The expert from the United Kingdom said that she would consider the issue further in the light of the comments made. The outcome of the discussion that will take place at the March 2012 session of the RID/ADR/ADN Joint Meeting should also be brought to the attention of the Sub-Committee together with any relevant background documentation.

10. Amendments to packing instruction P 602

Informal document: INF.28 and INF.48 (ICCA)

34. The representative of ICCA will submit an official proposal at the next session

11. Adsorbed toxic gases

Informal document: INF.42 (COSTHA)

35. Delegations were invited to provide answers to the questions raised to the representative of COSTHA.

V. Electric storage systems (agenda item 3)

A. Waste or damaged/defective lithium cells

1. Transport of waste lithium cells and batteries

Document: ST/SG/AC.10/C.3/2011/39 (PRBA-RECHARGE)

Informal document: INF.26/Rev.1 (Switzerland)

36. Consideration of these questions was entrusted to a lunchtime working group, which was assigned the task of addressing the following:

- (a) The differences in the technical characteristics between new and used lithium cells and batteries;
- (b) Whether or not it was necessary for the competent authorities to approve the transport of used lithium cells and batteries;
- (c) Whether used lithium cells and batteries, either mixed with other cells or batteries or unmixed, should be carried as a class 9 substance, or under an exemption;
- (d) Whether the proposed requirements could be applicable to the carriage of mixed-technology cells and batteries, or exclusively to lithium cells and batteries;
- (e) At what point in the disposal or recycling chain cells and batteries would no longer fall within the scope of the proposed special provision, SPXXX; and
- (f) To what extent short-circuit protection systems were necessary, and to what extent they could be used in practice.

37. A new document would be drawn up for the next session on the basis of the lunchtime working group's conclusions.

2. Transport of damages or defective lithium cells and batteries

Document: ST/SG/AC.10/C.3/2011/40 (PRBA-RECHARGE)

38. It was decided to entrust the proposal to a lunchtime working group, which would determine whether it was possible to define different requirements for small and large cells and batteries.

39. A new document would be drawn up for the next session on the basis of the lunchtime working group's conclusions.

B. Packagings for large batteries

Large packagings for lithium cells and batteries

Document: ST/SG/AC.10/C.3/2011/41 (PRBA and RECHARGE)

Informal document: INF.45 (PRBA and RECHARGE)

40. The proposal to add a new instruction for large packagings for large format lithium ion cells and batteries was supported by most experts. However, they considered that the proposed text required a number of clarifications, in particular in respect of the type of packaging (outer packaging or large packaging) in paragraphs (1) and (2) and the scope of the packing instruction (all cells and batteries; only those with a gross mass exceeding 12 kg; single batteries only; battery assemblies, etc.). The authors of the proposal were

invited to take into consideration the comments made and to revise their proposal accordingly.

41. The Sub-Committee considered a revised proposal submitted in informal document INF.45, which was deemed to be more acceptable, but which raised some editorial problems. The representative of PRBA was invited to submit a new official proposal at the next session, taking into account the comments made, and clearly indicating the fundamental principles underpinning the proposed packing instruction for large packages, LP 903.

C. Miscellaneous

1. Lithium battery mark

Document: ST/SG/AC.10/C.3/2011/35 (United States of America)

42. The proposal to require a mark on cells to indicate that the cell model had successfully passed the required design type tests was widely supported. However, some delegations expressed reservations with respect to the added value of such a mark from the point of view of safety in the absence of appropriate steps to ensure traceability and enforcement. Others considered that the mark would impose additional verification responsibilities.

43. Following an exchange of opinions on the subject, the Sub-Committee decided that in principle such a mark should be developed, and the expert from the United States was invited to reformulate the proposal, taking into consideration the comments made during the discussion.

2. Containerized lithium ion battery systems

Informal document: INF.30 (PRBA)

44. As lithium ion batteries were becoming more prevalent on the market for equipment used by industry and the public, the Sub-Committee recognized that specific provisions should be developed as quickly as possible to regulate their transport as battery systems in containers, and noted that the PRBA representative was willing to draw up a proposal to that effect.

VI. Miscellaneous proposals of amendments to the Model Regulations on the Transport of Dangerous Goods (agenda item 4)

A. Packagings

1. Large salvage packagings

Document: ST/SG/AC.10/C.3/2011/24 (Belgium and Germany)

45. The proposed amendments to chapters 1.2 and 6.6 of the Model Regulations submitted in paragraphs 4, 6, 8 and 11 of the document were adopted, with minor editorial changes to the definition of “large salvage packaging” and to subparagraphs (a), (b) and (c) of new paragraph 6.6.5.1.9 (see annex I).

2. References to ISO standards

Document: ST/SG/AC.10/C.3/2011/25 (ISO)

46. There was some support for the proposal to update references to the ISO standards for which revisions had already been published and to introduce a transitional period of six years for their application. Such an approach would allow industry to adapt to the new provisions, taking into account the time needed to implement provisions of the Model Regulations in the applicable modal regulations. However, in the light of concerns expressed by some industry representatives regarding the technical aspects of some of the revised standards, the Sub-Committee considered that more time was required to assess the implications if such provisions were applied, and to consult with industry representatives at the national level. It was also decided to bring the amendments proposed by ISO to the attention of the RID/ADR/ADN Joint Meeting.

47. The Sub-Committee agreed that if in the end the proposal was adopted, a text explaining the logic behind the establishment of transitional measures for the application of standards should be included in the Guiding Principles for the Model Regulations. The representative of ISO was prepared to submit a proposal to that effect at the appropriate time.

3. Definitions of multiple element gas containers and tubes

Document: ST/SG/AC.10/C.3/2011/26 (ISO)

48. The Sub-Committee noted that ISO was proceeding with a revision of its standard ISO 10286 – Terminology and that in that framework it intended to extend the concept of “tube” not only to seamless transportable pressure receptacles, but also to large composite pressure receptacles, for which new standards were being planned.

49. Some experts considered that the definitions should avoid reference to the method of construction to the extent possible, and should be more general, as construction requirements should be addressed in Part 6. It was, however, noted that in the specific case in question, reference to a seamless construction made it possible to distinguish between tubes and pressure drums of similar sizes.

50. The Sub-Committee considered that it was better to retain the current definition of tubes, while noting the standardization work under way for composite tubes. It would consider the possibility of introducing appropriate requirements to authorize the carriage of such composite tubes once the standardization work had moved ahead and once it could, on the basis of proposals relating to conditions of transport, ensure that such carriage could be performed in complete safety.

51. The proposal relating to the definition of multiple element gas containers was adopted (see annex I).

4. Sample pressure receptacles: Possibility for conformity assessment and UN marking

Document: ST/SG/AC.10/C.3/2011/33 (Germany)

52. Several delegations said they were interested in discussing the use of receptacles for which there was no provision in the Model Regulations, but which had to be employed in specific contexts, and which could currently be transported only under national regulations, or for international transport, by invoking exemptions requiring action by the various competent authorities.

53. Most of the experts recognized that a solution should be found for the specific problem of the various titanium pressure receptacles used by the oil and gas exploration

industries. However, the document also raised the more general question of the recognition of national construction standards or codes for internationally carried receptacles not covered by the Model Regulations, and for which there were no international standards.

54. Most of the experts considered that in principle, if such equipment was carried, it would be preferable to introduce the appropriate provisions in the Model Regulations or to refer to internationally recognized standards for the authorization at the global level of international carriage by the various modes of transport.

55. Introducing a procedure allowing the transport of receptacles meeting only national standards or codes, as done in the very specific regulatory and legal framework at the European level, would be much more difficult in the case of the Model Regulations, which had the status of recommendations.

56. In the light of the discussions, the expert from Germany said that she would submit a proposal aimed at addressing the problem by incorporating rules of a more generic nature.

5. Packagings with a capacity exceeding 450 litres (6.1.1.1 (d))

Document: ST/SG/AC.10/C.3/2011/34 (Germany)

57. Opinions were divided on the proposal to amend 6.1.1.1 (d). Some experts were concerned that the amendment would lead to new problems of interpretation. Nonetheless, after a discussion of alternative proposals submitted orally, the original proposal, put to the vote, was adopted (see annex I).

58. According to the decision:

- (a) Under Chapter 6.1, no packaging, whether intended for the carriage of liquids or solids, could have a net mass exceeding 400 kg;
- (b) “Single” packagings (in the meaning of the packing instructions) and composite packagings, i.e., any packagings not considered to be combination packagings, should have a maximum capacity of 450 litres if they contained liquids;
- (c) Packagings covered by (b), above, could have a capacity exceeding 450 litres if they contained solids;
- (d) Combination packagings having inner packagings containing solids or liquids could have a volume capacity exceeding 450 litres, provided the net mass did not exceed 400 kg.

B. Portable tanks

1. Internal inspection of portable tanks used for the transport of water-reactive organometallic substances

Document: ST/SG/AC.10/C.3/2011/28 (ICCA)

Informal document: INF.44 (ICCA)

59. The Sub-Committee noted that, for the goods in question, the cleaning of tanks to allow inspection of their interiors was detrimental to the quality of the next load of goods, as the washing water was a contaminant, and it was difficult to eliminate it completely from the tanks. Several experts supported the proposal made by ICCA to exempt tanks intended for the transport of water-reactive organometallic substances from the requirement for inspection of the tank interior during the inspection after 2.5 years, as such goods were not corrosive if not contaminated by water.

60. Other experts considered that the question was covered by the third sentence of 6.7.2.19.5, which allowed for the internal examination requirement to be waived when tanks were intended for the carriage of a single substance, provided the conditions established by the competent authority or its authorized body were met. It would suffice to extend that approach by means of a “TP” special provision to cover tanks exclusively intended for the transport of water-reactive organometallic substances.

61. The latter approach, when put to the vote, was carried over the one proposed by ICCA (see annex I).

2. Transitional periods for UN portable tanks intended for the transport of liquids

Document: ST/SG/AC.10/C.3/2011/37 (United Kingdom)

62. The proposal to amend the transitional provisions contained in provisions TP35, TP37, TP38 and TP39 was not supported, as most of the experts considered that an extension of the transitional period would place operators who had already taken steps to renew their tank fleets at an economic disadvantage.

63. Several experts supported the idea of establishing guiding principles for the amendment of portable tank transport codes assigned to specific substances, however they had some reservations about the proposed texts. For example, the reference in paragraph 9 to a catastrophic failure should be deleted, as it might give the impression that assigned codes were amended in reaction to accidents, when in actual fact amendments were introduced to anticipate and avoid accidents. Similarly, the transitional period of 15 years considered in paragraph 11 was excessively long. Some experts said that the transitional periods should be determined on a case-by-case basis, in the light of the safety requirements and actual economic repercussions.

64. The expert from the United Kingdom would draw up a new proposal, taking into consideration the comments made.

C. Marking and labelling

1. Fumigation warning mark and coolant/conditioning unit warning mark

Document: ST/SG/AC.10/C.3/2011/31 (United Kingdom)

Informal document: INF.19 (Sweden)

65. Several experts had reservations about the proposal to reduce the letter height on the fumigation warning mark from 25 mm to 10 mm, which was justified by the contention that it was impossible to use 25 mm letters on a mark measuring 300 mm by 250 mm. Those experts considered that the overall dimensions given for the mark were minimums, and that if such dimensions were insufficient for an inscription, a larger dimension could be used. To ensure safety, it was crucial that the text should be easy to read.

66. It was also noted that such marks had been recommended for some time in various IMO directives, and that IMO should be consulted before their characteristics were amended. Furthermore, as the marks were already used in practice, it was necessary to check whether the issue raised was in actual fact problematic.

67. It was agreed to maintain the proposal of the United Kingdom on the agenda of the next session, pending verification of how the provisions in question were currently being implemented. The expert from Sweden said that in the light of the results of the verification, she would, if necessary, submit an official proposal as a replacement to informal document INF.19.

2. Revised proposals for the descriptions of labels, placards, symbols, markings and marks

Document: ST/SG/AC.10/C.3/2011/32 (United Kingdom)

Informal document: INF.16 (United Kingdom)

68. Several experts expressed reservations about the proposal to reduce the minimum dimensions of marks for limited quantities and for dangers to the aquatic environment from 100 mm x 100 mm to 90 mm x 90 mm. The reasoning that it was necessary, for practical reasons in printing the labels, to provide a margin of 5 mm on the outside edge was unconvincing, as the question related not to labels but to marks, and the same issue would arise if the minimum dimensions were reduced.

69. The expert from the United Kingdom said that she would prepare a new proposal. A text should be prepared for the Guiding Principles explaining the standardized approach taken for the description of labels, placards, symbols, markings and marks including the specified dimensions.

3. Marking of the date of manufacture with packagings of types 1H and 3H

Document: ST/SG/AC.10/C.3/2011/36 (ICPP)

70. The proposed amendment to 6.1.3.1 (a) was adopted, with some changes (see annex I).

4. Interpretation and clarification of 5.2.1.1 and 5.4.1.4 in multimodal transport

Informal document: INF.21 (Spain)

71. The Sub-Committee recalled that the letters “UN” preceding the UN number should be considered as a symbol since they have to be marked on a package, therefore they should not be translated in any linguistic version of the Model Regulations or modal regulations. Similarly they should not be translated in the transport document so that the information in the transport document can match the marking.

72. Similarly, some acronyms that have to be marked on packages, such as “LSA” or “SCO” should not be translated.

73. The representatives of IMO and ICAO were invited to inform their translation services accordingly.

74. A member of the secretariat recalled that, in its original terms of reference in 1953, the Committee was requested to “recommending marks or labels for each grouping or classification which shall identify the risk graphically and without regard to printed text”. As a consequence the Sub-Committee, whenever developing new marks or labels, should avoid using text that is not necessarily understood by transport workers throughout the world, and should give preference to symbols.

VII. Electronic data interchange for documentation purposes (agenda item 5)

Informal documents: INF.13 (United Kingdom)

INF.50 (France)

75. The Sub-Committee noted the work done by the RID/ADR/ADN Joint Meeting and especially by its informal working group on telematics, and also the proposal by the expert from the United Kingdom relating to the electronic identification of data for each entry in

the list of dangerous goods in the Model Regulations and associated regulations, which would facilitate the universal use of telematics in the international transport of dangerous goods.

76. Several experts considered that such developments went beyond the scope of regulatory activity, and were more appropriately addressed by the industries in question, which as part of their work had already developed software to oversee or facilitate the transport of dangerous goods.

77. Other experts pointed out that at the European level there was no question of imposing electronic data interchange on companies already using electronic solutions for their own needs. It was rather a question of benefiting from the advantages of computer technology to ensure better implementation of the regulations and to improve information interchange between the various parties involved, the authorities and emergency services, in a uniform international framework requiring harmonized procedures and data communication systems.

78. The Sub-Committee would be kept informed of progress made at the European level and of suggestions for a more universal application.

VIII. Cooperation with the International Atomic Energy Agency (IAEA) (agenda item 6)

A. Provisions for uranium hexafluoride with less than 0.1 kg per package

Document: ST/SG/AC.10/C.3/2011/46 (IAEA)

Informal documents: INF.18 (Secretariat)
INF.25 (IAEA)
INF.36 (Austria)
INF.49 (Lunch time working group)

79. The Sub-Committee noted that IAEA was requesting a new entry for uranium hexafluoride in excepted packages with less than 0.1 kg per package, and was asking that the entry be assigned to class 7 (the first proposal in the document) and not to class 8 (the second proposal, corresponding with the approach currently used, in special provision 290).

80. Several experts supported the proposal, subject, however, to amendments to the text relating to the conditions of transport.

81. Several experts, referring to the interpretation of the IAEA data in ST/SG/AC.10/C.3/2011/46 provided by the expert from Austria in informal document INF.36, said that the subsidiary risk of division 6.1, packing group I, should also be taken into consideration.

82. As no official proposal had been made for the addition of the subsidiary risk or for the replacement of risk 8 with risk 6.1, it was decided not to discuss the question at the current session, on the understanding that it could be raised at later sessions on the basis of official documents. The experts of the GHS Sub-Committee should also be consulted on the subject, as they were experts on chemical health risks.

83. The representative of IATA noted that the proposal would lead to contradictions with the usual procedures for marking and labelling, in particular as it would require no labelling for the class 7 primary hazard. The contradictions between the information required in the transport document, the labelling and the marking would without fail lead to

operational problems and denial of shipment at airports. This view was supported by several delegations.

84. It was decided to entrust the consideration of the proposed texts relating to conditions of transport to a lunchtime working group. It should not take a position with regard to the issue relating to subsidiary risk 6.1, but it could bear it in mind while considering the packing conditions.

85. The Sub-Committee considered the texts proposed by the lunch time working group in informal document INF.49 and noted that some texts had been left between square brackets for further discussion at the next session, notably the indication of subsidiary risk of division 6.1 and a provision for labelling packages with a label conforming to the class 7 model No. 7A in order to reflect the primary hazard.

86. The representative of IAEA said that the discussions concerning the hazards other than the class 7 hazard fell within the competence of the Sub-Committee, but the provisions related only to the radioactivity hazard should reflect exactly those contained in the IAEA Regulations, and the IAEA did not require any class 7 label for excepted packages. He said that a compromise could be to use the label required under air transport regulations for excepted packages of radioactive material.

87. This discussion raised again the question of precedence of hazard. Some experts noted that this substance presented a very high level of corrosivity, and probably of toxicity, which required the application of the most stringent provisions of the Model Regulations, while, from the radiological standpoint, it was deemed to present a very minor hazard which did not even require labelling. This did not seem logical and was likely to cause confusion in transport operations. Some experts also felt that the proposed provisions were exceptions to what was already an exception, and this way of addressing the problem was likely to complicate transport of this substance rather than simplify it.

88. The Sub-Committee noted that the IAEA Regulations did not address in detail any hazard other than the class 7 hazard and that classifying this substance in class 7, class 8 or division 6.1, or assigning any subsidiary risk, would not affect in any case the text of the IAEA Regulations and that the only action requested from the Sub-Committee at this stage was to provide a UN number and a proper shipping name. Therefore the Sub-Committee agreed to create a new entry with a UN number and a name and description that can be used by IAEA in the forthcoming edition of the IAEA Regulations. The rest of the text will remain between square brackets for further discussion at the next session.

B. TRANSSC Review of proposed changes to the United Nations Model Regulations

Informal document: INF.6 (Secretariat)

89. The Sub-Committee welcomed the procedures adopted by the IAEA Transport Safety Standards Committee (TRANSSC) to improve interaction between the two bodies, on the one hand so as to incorporate amendments to the IAEA Regulations in the United Nations Model Regulations, and on the other hand to allow IAEA to take part more actively in the amending of the Model Regulations.

90. The Sub-Committee underscored the importance of national communication between its own experts and those of TRANSSC.

91. Several experts considered that joint meetings of experts should be held to discuss questions of common interest, for example those relating to radioactive substances presenting dangers covered by other classes. Such meetings could be held in parallel with

the Sub-Committee's sessions; that was already the practice for issues related to explosives and tanks.

92. A member of the secretariat mentioned that such meetings could not be held unless specific documents were submitted setting out the issues to be discussed.

C. Revision of the IAEA Regulations for the Safe Transport of Radioactive Material (2009 edition)

Informal documents: INF.25 and Adds. 1–2 (IAEA)

93. The Sub-Committee noted that, subject to the approval of the Board of Governors of IAEA in March 2012, IAEA would publish a new version of its Regulations for the Safe Transport of Radioactive Material. A copy of the new edition, as adopted by TRANSSC, had been reproduced in informal document INF.25/Add.1, and the amendments made to the Regulations were highlighted in informal document INF.25/Add.2.

94. A member of the secretariat pointed out that the secretariat had already prepared a list of amendments that should consequently be made to the Model Regulations. A copy would be distributed to the experts of the Sub-Committee and of TRANSSC for comment before the final preparation in March 2012 of proposed amendments to the Model Regulations, which would be discussed at the next session. The proposal would not address purely editorial changes specific to the English used in the text.

D. Special provision 172

Informal document: INF.27 (IATA)

95. The Sub-Committee noted the proposal to amend special provision 172, but requested that the representative of IATA submit it as an official document for discussion at the next session, as part of the alignment of the Model Regulations and the IAEA Regulations.

E. Corrections to the Model Regulations

Informal document: INF.15 (Secretariat)

96. The Sub-Committee approved the corrections to 6.4.9.1, 6.4.23.5 (a) and 6.4.23.10 (d), as formulated in paragraphs 3.25 and 3.26 of the report of the IMO Editorial and Technical Group (DSC 17/3) (see annex II).

IX. Global harmonization of transport of dangerous goods regulations with the Model Regulations (agenda item 7)

A. International Maritime Dangerous Goods (IMDG) Code

Informal document: INF.15 (Secretariat)

97. The Sub-Committee took note of the relevant paragraphs in the report of the Editorial and Technical Group (E and T Group) of the IMO Sub-Committee on Dangerous Goods, Solid Cargoes and Containers which met from 26-28 September 2011 (as extracted from document DSC 17/3). The Sub-Committee decided as follows on issues referred to it by the E and T Group.

Paragraph 3.6

98. Paragraph 4.1.1.9 of the Model Regulations shall be corrected (see annex II).

Paragraph 3.9

99. The note to the test pressure column in tables 2 and 3 of P200 of the IMDG Code is not relevant because it refers to the working pressure which is a concept which is not used in the Model Regulations and in the IMDG Code for liquefied gases. It is used for compressed gases, as this allows the determination of the maximum filling ratio (see P 200 (3) a), but the filling ratio is determined differently for liquefied gases (see P200 (3) (b) and (c)). Therefore the Sub-Committee invited IMO to correct the IMDG Code by deleting this note to tables 2 and 3.

Paragraph 3.12

100. The Sub-Committee agreed to add “REFRIGERANT GAS R 1113” as an alternative proper shipping name for UN No. 1082 (see annex I). Regarding the need to check other entries for chemicals that can be used as refrigerant, a member of the secretariat said that the “R” entries were checked several years ago and that he would provide background information if relevant.

Paragraph 3.16

101. There was no objection to the idea of developing “BK” special provisions as suggested by the E and T Group, but this would require specific proposals.

Paragraph 3.19

102. The Sub-Committee agreed to include a reference to special provision 318 in 5.4.1.4.3. (a) (see annex I).

Paragraph 3.21

103. The Sub-Committee agreed that there was an inconsistency between the text of the shipper declaration in 5.4.1.6.1 and that in the multimodal dangerous goods form and decided to amend 5.4.1.6.1 in order to allow more flexibility as regards the position of the declaration in relation to the description of dangerous goods (see annex I).

Paragraph 3.22

104. The Sub-Committee agreed that the text in 5.4.2.1 (h) should take account of the new sub-section 5.5.3, but considered that the text proposed by the E and T Group should take account of all cases covered by 5.5.3 and not only that of solid carbon dioxide (see annex II).

Paragraph 3.24

105. The Sub-Committee agreed that the characters referred to in 6.2.2.7.7 (a) should be the distinguished sign of motor vehicles in international traffic and corrected the paragraph accordingly (see annex I).

Paragraph 3.27

106. The Sub-Committee agreed that the marking required in 6.7.2.20.2, 6.7.3.16.2 and 6.7.5.13.2 should be durable as required in 6.7.4.15.2 and amended the paragraphs accordingly (see annex I). However there is no need to amend 6.7.2.20.1 and equivalent

paragraphs since the information is required to be marked by stamping or equivalent methods, which implies durability.

Paragraph 3.29

107. The Sub-Committee agreed to align 6.8.4.6 with the corresponding IMDG Code text (see annex I).

Paragraph 3.36

108. The Sub-Committee confirmed that there is no need to mark the technical name on packages containing dangerous goods packed in limited quantities but felt that there was no need to amend special provision 274 since the provisions of Chapter 3.4 concerning marking and documentation were clear enough in this respect.

Paragraph 3.42

109. The Sub-Committee agreed that the use of capital letters and lower case in the glossary of Appendix B lacked consistency. A member of the secretariat said that in principle terms in lower case are terms which are not necessarily used as proper shipping names, while those in capital letters correspond to entries in the dangerous goods list. He said that this appendix had been reviewed for inclusion in RID, ADR and ADN and that the secretariat could make a proposal for clarifying Appendix B of the Model Regulations at the next session.

Paragraphs 4.2 and 4.3

110. The Sub-Committee recalled that in a multimodal transport chain consignors had to comply with the most stringent provisions applicable to a given mode of transport and therefore packages offered for shipment in accordance with the provision of the IMDG Code or the ICAO Technical Instructions should be accepted for land transport even if the shipment is not subject to land transport regulations.

111. The Sub-Committee noted that, in principle, when necessary special provisions of Chapter 3.3 indicated whether some dangerous goods were subject to sea transport or air transport regulations only.

B. RID/ADR/ADN

1. Outcome of the autumn 2010 session of the RID/ADR/ADN Joint Meeting

Document: ST/SG/AC.10/C.3/2011/23 (Secretariat)

Informal document: INF.20 (ICPP)

112. The Sub-Committee felt that the question of the meaning of the word “tray” in packing instruction P 903 b) would have to be solved in the context of current work on the transport of waste lithium batteries in general.

Paragraphs 24-27 (Test samples for the vibration test of IBCs)

113. The Sub-Committee noted that there was no agreement at European level as to whether or not plastics IBCs, filled with the liquid they are intended to carry, had to be stored for six months (or three months with standard liquids) in order to prove chemical compatibility.

114. Several experts felt that compatibility testing was independent from vibration testing and that vibration tests could be carried out on samples which have not yet been subjected to compatibility tests.

115. The Sub-Committee noted that European manufacturers were investigating the impact of preliminary storage on the results of the vibration test. Interested delegations were invited to submit documents and proposals supported by data to demonstrate whether vibration testing can be done independently from compatibility testing, i.e. before or after compatibility testing.

Paragraph 33 (Supplementary information on danger labels)

116. Most of the experts felt that paragraph 5.2.2.2.1.5 allowed the optional inclusion of any text related to the nature of the risk and precautions to be taken in handling, in the lower part of the label, including the UN number preceded or not by the letters “UN”. They also felt that in the UN number, preceded by the letters “UN”, appeared in the lower part of the label in a size complying with the requirements of 5.2.1.1, and in compliance with 5.2.1.2, there was no need to repeat this marking on the package.

117. The expert from the United States said that he would prepare a proposal for clarifying these issues in Chapter 5.2. He was invited to address Chapter 5.3 as well.

2. Outcome of the autumn 2011 session of the RID/ADR/ADN Joint Meeting

Document: ST/SG/AC.10/C.3/2011/47 (Secretariat)

118. The Sub-Committee noted with satisfaction that the RID/ADR/ADN Joint Meeting had taken the necessary steps to amend RID/ADR/ADN in order to reflect the provisions of the seventeenth revised edition of the United Nations Recommendations. It also took note of the comments of the Joint Meeting on the outcome of the Sub-Committee’s thirty-ninth session and concluded as follows:

Paragraph 52 (Stacking symbol on large packagings)

119. The note to 6.5.2.2.2 had been copied and pasted as a note to 6.6.3.3, overlooking the fact that there is no provision for repaired large packagings. When a large packaging is repaired because it has been damaged, it is possible to take the opportunity to apply the stacking symbol, but there is no evidence that the repaired large packaging continue to meet the required performance standard. The Sub-Committee agreed to delete the reference to repair in the note to 6.6.3.3 as a correction, as this was the logical way forward. Addressing the case of repaired large packagings would require specific proposals.

C. Outcome of the ICAO Dangerous Goods Panel session

Informal document: INF.40 (ICAO)

120. Some experts noted with concern that some decisions by ICAO were likely to cause problems in multimodal transport. Nevertheless, as the document had been submitted late, experts had no time to evaluate the consequences.

121. The representative of ICAO was invited to submit a more substantive document for the next session so that the issues raised could be discussed more deeply.

X. Guiding Principles for the Model Regulations (agenda item 8)

Informal document: INF.14 (United Kingdom)

122. The Sub-Committee approved in principle the revised version of the Guiding Principles for packagings. However, it noted that certain decisions taken at the current session must be taken into consideration, in particular those relating to the use, in transporting solids, of IBCs approved for the carriage of liquids.

XI. Issues related to the Globally Harmonized System of Classification and Labelling of Chemicals (agenda item 9)

A. Corrosivity criteria

Informal documents: INF.14 (submitted at the 39th session)
INF.33 and Add.1 (United Kingdom)
INF.9 (ICCA)
INF.10 (ICCA)
INF.29 (ICPP)

123. The Sub-Committee took note of the report on the work of the Joint TDG/GHS correspondence group on corrosivity (INF.33 and Add.1) and related comments and proposals that would be discussed by the Joint GHS/TDG Working Group on corrosivity criteria during this session.

124. The discussion showed that there was no defined position of the Sub-Committee on the various issues raised as regards the transport sector. Some experts were reluctant to the development of an extensive GHS list, since this would be time and resource consuming and classification of their products could be left to the industry. Others were favourable to the idea of a list at the United Nations level which would at least compare existing available lists for clarification of the classification of chemicals traded in significant quantities.

125. There was nevertheless some consensus as regards some issues. If the GHS classification of chemicals had to appear in a list, the classification should not be a default classification. Due to divergences in classification practices and existing classifications in the European "CLP" list and the transport list, harmonizing the transport packing group classification of class 8 with the classification provided in the CLP list would exclude the possibility of classification in packing group III. It would also lead to reclassification of many corrosive substances in packing group I, which would prevent the use of some packagings, IBCs and tanks currently authorized. This would have important economic implications for the industry.

126. Many experts considered that it was important to consider carefully the reasons for divergent classifications, and that the current assignment to packing groups should be revised only if there were convincing evidence, including human experience data, showing that the current classification had to be modified.

127. Some experts felt that the assignment of the transport conditions should be dissociated from the GHS classification criteria for corrosivity categories 1A, 1B and 1C. Others did not share this view, since, at the moment, the criteria for assignment to packing groups I, II and III were the same as those for assignment to categories 1A, 1B and 1C. If there were evidence that the current transport classification was inappropriate for a significant number of substances at the moment, it would be possible to adapt the existing rationalized approach for authorizing the continued use of different types of packagings and

tanks, but so far there was no evidence that the current rationalized approach had to be changed.

128. It was also mentioned that the first step in classification should be checking human experience, which should take precedence, and then using criteria based on tests data. For mixtures, there was support for using the bridging principles which ensure an adequate safety margin.

Joint GHS/TDG Working Group on corrosivity criteria

Informal document : INF.51

129. The Joint GHS/TDG Working Group on corrosivity criteria met on 6 December 2011 with Mr. R. Foster (United Kingdom) as Chairman and with the participation of experts of both the TDG Sub-Committee and the GHS Sub-Committee.

130. The Sub-Committee took note of the conclusions of the Working Group (reported verbally by the TDG Sub-Committee Chairman, subsequently issued as INF.51) and expressed great satisfaction at the successful results. It was agreed, subject to the concurrence of the GHS Sub-Committee, that a further session of this Working Group should be organized either during the next session of the Sub-Committee or that of the GHS Sub-Committee (i.e. summer 2012). It was also suggested that this experience might be repeated in future if it turned out that the application of the GHS criteria led to conflicting classifications for other hazards or other issues of mutual concern to both Sub-Committees arose.

B. Criteria for water-reactivity

Informal documents: INF.8 (Germany)
INF.38 (United States of America)

131. The Sub-Committee noted the progress report submitted by the expert from Germany, notably the need for additional cooperation between testing laboratories for improving the N.5 testing method for measuring the rate of gas evolution on contact with water, and contribution from toxicologists once the N.5 method has been improved in order to assess health hazards.

132. The Sub-Committee noted that the United States Transportation Research Board (US TRB) had secured funding for a research programme in this respect. It would therefore be useful to involve the contractors in the Sub-Committee work.

133. The Sub-Committee concluded that all available information on test methods and results should be transmitted as soon as possible to the expert from Germany. A working group session, with participation of the US TRB contractor, could be organized in parallel to the next session, in order to consider all information available and define further steps, on the understanding that the work on this subject would continue during the next biennium. This meeting should also be brought to the attention of the GHS Sub-Committee.

C. Miscellaneous

1. Classification of desensitized explosives for the purposes of supply and use

Informal document: INF.7 (Germany)

134. The Sub-Committee noted that the expert from Germany regretted the lack of support for further progress on this issue. Basic principles had been agreed in 2007-2008,

but these principles had been put into question by some experts in December 2008 and it was agreed to follow a different approach subject to the provision of relevant data supporting or contradicting this approach. However, no test data nor test results had been provided since then.

135. The Sub-Committee confirmed its interest in pursuing the work and urged the interested delegations to provide relevant data, otherwise it might be more appropriate to revert back to the original approach. It was agreed that some of the working time of the Working Group on Explosives should be devoted to this issue at the next session. The expert from the Netherlands was invited to draw this to the attention of the Chairman of the Working Group on Explosives in order that the International Group of experts on Unstable Substances (IGUS) might also consider the issue. The Working Group should bear in mind that this work had to be carried out in the GHS context and not only in the transport perspective.

2. Substances and mixtures with explosive properties which are exempted from classification as explosives

Informal document: INF.17 (Germany, United States of America and Canada)

136. Several delegations felt that the best way to deal with communicating explosive properties of substances which are exempted from classification as explosives for transport and storage was to convey the information through safety data sheets for the information of users once the substances are taken out of the packaging.

137. The Sub-Committee agreed that this issue may require further discussions for a longer term approach, but recommended the addition of a note to Table 2.1.2 of section 2.1.3 of the GHS as a short-term solution (see annex III).

XII. Other business (agenda item 10)

A. Requests for consultative status

1. Fertilizers Europe

Informal document: INF.3 (Fertilizer Europe)

138. The Sub-Committee noted that the European Fertilizer Manufacturer Association (EFMA), which is in consultative status with the Economic and Social Council, had changed its name to "Fertilizers Europe".

2. Dangerous Goods Trainers Association, Inc (DGTA)

Informal document: INF.4 (DGTA)

139. The Sub-Committee agreed to grant consultative status to DGTA for participation in its work on questions falling within the scope of the activities of this organization.

3. Global Lighting Forum (GLF)

Informal document: INF.35 and Add.1 (European Lamp Companies Federation)

140. The Sub-Committee agreed to grant consultative status to GLF for participation in its work on questions falling within the scope of the activities of this organization.

B. Economic and Social Council's resolution 2011/25

Informal document: INF.5 (Secretariat)

141. The Sub-Committee noted resolution 2011/25 on the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of chemicals adopted by the Council on 27 July 2011.

C. Condolences

142. The expert from the Netherlands informed the Sub-Committee that Mr. Wieger Visser had passed away at the age of 67 on 12 October 2011. Before retirement, Mr. Visser represented the Netherlands at sessions of the RID Safety Committee, and he had chaired the RID/ADR/ADN for ten years. He had also attended sessions of the Sub-Committee at numerous occasions as member of the OTIF delegation. Mr Visser had devoted most of his working life to the safety of the transport of dangerous goods by rail, and he had always been a strong advocate of systematics in regulations and of rationalized approaches. The Sub-Committee observed a minute of silence in his memory and the Chairman expressed condolences on behalf of the Sub-Committee.

D. Issues related to fireworks

Informal document: INF.39 (United States of America)

143. The Sub-Committee welcomed the initiative of the expert from the United States of America to discuss implementation of the current fireworks default classification system on a regional and a national level. It invited interested delegations to register for the proposed videoconference and provide the information requested after registration in order to enable to expert from the United States of America to carry out a survey that will serve as a basis for discussion at the videoconference. It was agreed to bring this videoconference to the attention of the GHS Sub-Committee and to invite participation.

E. Programme of work for 2012-2013, biennial evaluations, and strategic framework for 2014-2015

Informal document: INF.47 (Secretariat)

144. The Sub-Committee noted with interest the information provided by the secretariat at the request of the Executive Committee (EXCOM) of the United Nations Economic Commission for Europe in the context of the programme budget for 2012-2013 and 2014-2015, bearing in mind that although its programme of work is under the direct responsibility of the Economic and Social Council, it has to be reflected, for budgetary purposes, in the documentation related to the activities of the UNECE Transport Sub-Programme.

145. The Sub-Committee approved the text prepared by the secretariat with a few minor editorial changes. It welcomed in particular, and encouraged, the technical assistance activities, as resources allowed, and expressed satisfaction for the fruitful efforts made by the secretariat so far in this respect despite scarce resources.

146. The representative of the IAEA said that the Agency planned to carry out a programme of technical cooperation in African countries for implementation of the IAEA Regulations, and that it envisaged to involve the UNECE secretariat in this activity in order to promote at the same time the implementation of the United Nations Recommendations on the Transport of Dangerous Goods.

F. Decade of action for road safety

Informal document: INF.46 (Secretariat)

147. The Sub-Committee noted the report on improving global road safety prepared by WHO in consultation with the United Nations regional commissions and other partners of the United Nations Road Safety Collaboration, that would be discussed by the General Assembly on 12 December 2011 (A/66/389). It noted in particular paragraph 72 (b) which recommends that the General Assembly call upon Member States to accede to United Nations road safety international legal instruments and apply, implement and promote their provisions or safety regulations, for example “... the United Nations instruments governing transport of dangerous goods by road, or other instruments based on the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations ...”.

XIII. Adoption of the report (agenda item 11)

148. The Sub-Committee adopted the report on its fortieth session and its annexes on the basis of a draft prepared by the secretariat.

Annex I

Draft amendments to the seventeenth revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations

Chapter 1.2

1.2.1 In the definition of "Multiple-element gas container", replace "and bundles" with "or bundles".

(Reference document: ST/SG/AC.10/C.3/2011/26)

1.2.1 Add the following new definition:

"*Large salvage packaging* means a special packaging which

(a) is designed for mechanical handling; and

(b) exceeds 400 kg net mass or 450 litres capacity but has a volume of not more than 3 m³;

into which damaged, defective or leaking dangerous goods packages, or dangerous goods that have spilled or leaked are placed for purposes of transport for recovery or disposal."

(Reference document: ST/SG/AC.10/C.3/2011/24)

Chapter 1.5

[1.5.1.5.1 At the end of the introductory sentence, before (a), insert ", except for UN 3507, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – URANIUM HEXAFLUORIDE, where the additional requirements of special provision 369 of Chapter 3.3 shall be met".]

(Reference document: informal document INF.49, consequential amendment)

Chapter 2.0

[2.0.3.2 Amend the last sentence to read as follows:

"For radioactive material in excepted packages, except for UN 3507, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – URANIUM HEXAFLUORIDE, special provision 290 of chapter 3.3 applies.".]

(Reference document: informal document INF.49)

Chapter 2.6

2.6.3.2.3.5 Amend to read as follows:

"2.6.3.2.3.5 Dried blood spots, collected by applying a drop of blood onto absorbent material, are not subject to these Regulations."

Insert two new paragraphs 2.6.3.2.3.6 and 2.6.3.2.3.7 to read as follows and renumber existing paragraphs accordingly:

2.6.3.2.3.6 Faecal occult blood screening samples are not subject to these Regulations.

2.6.3.2.3.7 Blood or blood components which have been collected for the purposes of transfusion or for the preparation of blood products to be used for transfusion or

transplantation and any tissues or organs intended for use in transplantation [as well as samples drawn in connection with such purposes] are not subject to these Regulations.

(Reference document: ST/SG/AC.10/C.3/2011/27 and informal document INF.41)

Chapter 2.7

Table 2.7.2.1.1, under "Excepted packages" add the following new entry:

"UN 3507 RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – URANIUM HEXAFLUORIDE, less than 0.1 kg per package, non-fissile or fissile-excepted".

(Reference document: informal document INF.49)

[Table 2.7.2.1.1, under "uranium hexafluoride", add the following note at the end:

"NOTE: For uranium hexafluoride in excepted packages see UN 3507 under excepted packages.".]

(Reference document: informal document INF.49)

[2.7.2.4.1.1 Amend to read as follows:

"2.7.2.4.1.1 Packages may be classified as excepted packages if:

- (a) They are empty packages having contained radioactive material;
- (b) They contain instruments or articles in limited quantities as specified in Table 2.7.2.4.1.2;
- (c) They contain articles manufactured of natural uranium, depleted uranium or natural thorium;
- (d) They contain radioactive material in limited quantities as specified in Table 2.7.2.4.1.2; or
- (e) They contain less than 0.1 kg of uranium hexafluoride not exceeding the activity limits specified in column 4 of Table 2.7.2.4.1.2.".]

(Reference document: informal document INF.49)

[Add a new 2.7.2.4.1.7 to read as follows:

"2.7.2.4.1.7 Uranium hexafluoride not exceeding the limits specified in column 4 of Table 2.7.2.4.1.2 may be classified under UN 3507 RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – URANIUM HEXAFLUORIDE, less than 0.1 kg per package, non-fissile or fissile-excepted, provided that the conditions of 2.7.2.4.1.4 (a)–(b) are met.".]

(Reference document: informal document INF.49)

[2.7.2.4.5 Amend to read as follows:

"2.7.2.4.5 Classification of uranium hexafluoride

2.7.2.4.5.1 Uranium hexafluoride shall only be assigned to:

- (a) UN No 2977, RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, FISSILE;
- (b) UN No 2978, RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, non-fissile or fissile-excepted; or
- (c) UN No 3507, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – URANIUM HEXAFLUORIDE, less than 0.1 kg per package, non-fissile or fissile-

excepted, in the case of uranium hexafluoride in quantities of less than 0.1 kg packaged and in an excepted package.

2.7.2.4.5.2 The contents of a package containing uranium hexafluoride shall comply with the following requirements:

(a) For UN Nos 2977 and 2978, the mass of uranium hexafluoride shall not be different from that allowed for the package design, and for UN 3507, the mass of uranium hexafluoride shall be less than 0.1 kg;

(b) The mass of uranium hexafluoride shall not be greater than a value that would lead to an ullage smaller than 5% at the maximum temperature of the package as specified for the plant systems where the package shall be used; and

(c) The uranium hexafluoride shall be in solid form and the internal pressure shall not be above atmospheric pressure when presented for transport.".]

(Reference document: informal document INF.49 as amended)

Chapter 3.2, Dangerous goods list

For UN 1082, in column (2), add "(REFRIGERANT GAS R 1113)" at the end and amend the alphabetical index accordingly.

(Reference document: informal document INF.15, paragraph 3.12)

[For UN 2910 Delete "325" and insert "368" in column (6).]

(Reference document: informal document INF.49)

For UN Nos. 3393, 3394, 3395, 3396, 3397, 3398, and 3399 (all packing groups): Insert "TP41" in column (11).

(Reference documents: ST/SG/AC.10/C.3/2011/28 as amended by informal document INF.44 as amended)

Add the following new entry:

UN No.	Name and description	Class	Subsidiary risk	PG	SP	Limited Quantity	Excepted Quantity	Packing Instruction
3507	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - URANIUM HEXAFLUORIDE, less than 0.1 kg per package, non-fissile or fissile-excepted	[7]	[8] [6.1]		[317] [369]	[0]	[E0]	[P701]

(Reference document: informal document INF.49)

Chapter 3.3

SP 66 Replace "Mercurous chloride and cinnabar are" with "Cinnabar is".

(Reference document: informal document INF.11)

SP 135 Amend to read as follows:

"135 The dihydrated sodium salt of dichloroisocyanuric acid does not meet the criteria for inclusion in Division 5.1 and is not subject to these Regulations unless meeting the criteria for inclusion in another Class or Division."

(Reference document: ST/SG/AC.10/C.3/2011/22 as amended)

Add the following new special provisions:

["368 In the case of non-fissile or fissile-excepted uranium hexafluoride, the material shall be classified under UN 3507 or UN 2978."]

["369 Notwithstanding the provisions of 5.1.5.4.2 and in addition to the provisions of 1.5.1.5, the following requirements of Part 5 shall be applied:

- (1) The package shall be marked in accordance with 5.2.1 and labelled with labels of models [7A], [8] [and 6.1] in accordance with Chapter 5.2;
- (2) For documentation, the requirements of 5.4.1.1 to 5.4.1.4; 5.4.1.5.1; 5.4.1.6; and 5.4.2 to 5.4.4 shall apply.

The description in the transport document according to 5.4.1.4.1 shall be UN 3507 radioactive material, excepted package, uranium hexafluoride, [7] [(8)] [(6.1)].

(Reference document: informal document INF.49 as amended)

Alphabetical index

Add the following new entry in alphabetical order:

Name and description	Class	UN No.
Mercurous chloride, see	6.1	2025

(Reference document: informal document INF.11)

Chapter 4.1

4.1.4.1 Add the following new packing instruction:

[

P701	PACKING INSTRUCTION	P701
This instruction applies to UN 3507.		
<p>The following packagings are authorized provided that the general provisions of 4.1.1 and 4.1.3 and the special packing provisions of 4.1.9 applicable to excepted packages for radioactive material are met:</p> <p>Combination packagings consisting of:</p> <ol style="list-style-type: none"> (a) Metal or plastic primary receptacle(s); (b) Leakproof rigid secondary packaging(s) (c) A rigid outer packaging: <ul style="list-style-type: none"> Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2). <p>The following requirements shall be met:</p> <ol style="list-style-type: none"> (1) Primary receptacles shall be packed in secondary packagings in a way that, under normal conditions of transport, they cannot break, be punctured or leak their contents into the secondary packaging. Secondary packagings shall be secured in outer packagings with suitable cushioning material to prevent movement. If multiple primary receptacles are 		

placed in a single secondary packaging, they shall be either individually wrapped or separated so as to prevent contact between them;

(2) The combination packaging shall conform to the packing group 1 performance level;

[(3) The mass of uranium hexafluoride shall not be greater than a value that would lead to an ullage smaller than 5% at the maximum temperature of the package as specified for the plant systems where the package shall be used;]

[(4) The uranium hexafluoride shall be in solid form and the internal pressure shall not be above atmospheric pressure when presented for transport;]

(5) The total quantity of uranium hexafluoride per package shall be less than 0.1 kg;

(6) In the case of fissile material, limits specified in [2.7.2.3.5 and 6.4.11.2] shall be met.

]

(Reference document: informal document INF.49 as amended)

4.1.4.2, IBC04 Replace "and 21N" with ", 21N, 31A, 31B and 31N".

4.1.4.2, IBC05 (1) Replace "and 21N" with ", 21N, 31A, 31B and 31N".

4.1.4.2, IBC05 (2) Replace "and 21H2" with ", 21H2, 31H1 and 31H2".

4.1.4.2, IBC05 (3) Replace "and 21HZ1" with ", 21HZ1 and 31HZ1".

4.1.4.2, IBC06 (1), IBC07 (1) and IBC08 (1) Replace "and 21N" with ", 21N, 31A, 31B and 31N".

4.1.4.2, IBC06 (2), IBC07 (2) and IBC08 (2) Replace "and 21H2" with ", 21H2, 31H1 and 31H2".

4.1.4.2, IBC06 (3), IBC07 (3) and IBC08 (3) Replace "and 21HZ2" with "21HZ2 and 31HZ1".

(Reference document: ST/SG/AC.10/C.3/2011/45)

Chapter 4.2

4.2.5.3 Add the following new portable tank special provision:

"TP41 The 2.5 year internal examination may be waived or substituted by other test methods or inspection procedures specified by the competent authority or its authorized body, provided that the portable tank is dedicated to the transport of the organometallic substances to which this tank special provision is assigned. However this examination is required when the conditions of 6.7.2.19.7 are met."

(Reference documents: ST/SG/AC.10/C.3/2011/28 as amended by informal document INF.44 as amended)

Chapter 5.4

5.4.1.6.1 In the text of the certification, after "above", add a reference to footnote 2. The footnote reads as follows: "or below".

5.4.2.1 Renumber footnote 2 as footnote 3.

(Reference document: informal document INF.15, paragraph 3.21)

5.4.2.1 (h) Amend to read as follows:

"(h) When substances presenting a risk of asphyxiation are used for cooling or conditioning purposes (such as dry ice (UN 1845) or nitrogen, refrigerated liquid (UN 1977) or argon,

refrigerated liquid (UN 1951)), the container/vehicle is externally marked in accordance with 5.5.3.6; and".

(Reference document: informal document INF.15, paragraph 3.22)

Chapter 6.1

6.1.1.1 (d) After "Packagings" insert "for liquids, other than combination packagings,".

(Reference document: ST/SG/AC.10/C.3/2011/34)

6.1.3.1 (e) Insert an reference to note * at the center of the symbol and add the following note under the symbol:

"* The last two digits of the year of manufacture may be displayed at that place. In such a case, the two digits of the year in the type approval marking and in the inner circle of the clock shall be identical."


(Reference document: ST/SG/AC.10/C.3/2011/36 as amended)

Chapter 6.6

6.6.2.2 At the beginning, replace "The letter "W"" with "The letters "T" or "W"" and insert a new second sentence to read as follows: "The letter "T" signifies a large salvage packaging conforming to the requirements of 6.6.5.1.9."

(Reference document: ST/SG/AC.10/C.3/2011/24)

6.6.3.2 Insert a new second example to read as follows:

"  50AT/Y05/01/B/PQRS For a large steel salvage packaging suitable for
2500/1000 stacking; stacking load: 2500 kg; maximum gross
mass: 1000 kg. "

(Reference document: ST/SG/AC.10/C.3/2011/24)

Insert the following new 6.6.5.1.9:

"6.6.5.1.9 Large salvage packagings

Large salvage packagings (see 1.2.1) shall be tested and marked in accordance with the provisions applicable to packing group II large packagings intended for the transport of solids or inner packagings, except as follows:

(a) The test substance used in performing the tests shall be water, and the large salvage packagings shall be filled to not less than 98% of their maximum capacity. It is permissible to use additives, such as bags of lead shot, to achieve the requisite total package mass so long as they are placed so that the test results are not affected. Alternatively, in performing the drop test, the drop height may be varied in accordance with 6.6.5.3.4.4.2 (b);

(b) Large salvage packagings shall, in addition, have been successfully subjected to the leakproofness test at 30 kPa, with the results of this test reflected in the test report required by 6.6.5.4; and

(c) Large salvage packagings shall be marked with the letter "T" as described in 6.6.2.2."

(Reference document: ST/SG/AC.10/C.3/2011/24)

Chapter 6.7

6.7.2.20.2, 6.7.3.16.2 and 6.7.5.13.2 Replace "shall be marked" with "shall be durably marked".

(Reference document: informal document INF.15, paragraph 3.27)

Chapter 6.8

6.8.4.6 After "BKx", add a reference to footnote 1. The footnote reads as follows: "x should be replaced with "1" or "2" as appropriate."

(Reference document: informal document INF.15, paragraph 3.29)

Annex II

Corrections to the seventeenth revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations

1.2.1 The correction does not apply to the English text.

(Reference document: ST/SG/AC.10/C.3/2011/47)

4.1.1.9 For "6.3.2" read "6.3.5".

(Reference document: informal document INF.15, paragraph 3.6)

4.2.5.2.6 The correction does not apply to the English text.

(Reference document: ST/SG/AC.10/C.3/2011/47)

5.4.1.4.3 (a) After "special provision 274" insert "or 318".

(Reference document: informal document INF.15, paragraph 3.19)

6.2.2.7.7 (a) At the end of the first sentence, add ", as indicated by the distinguishing signs of motor vehicles in international traffic".

(Reference document: informal document INF.15, paragraph 3.24)

6.4.9.1 and 6.4.23.5 (a): Insert "6.4.8.4," after "6.4.7.5,".

(Reference document: informal document INF.15, paragraph 3.25)

6.4.23.10 (d): For "A/132/B(M)F to 96(SP503)" read "A/132/B(M)F-96(SP503)".

(Reference document: informal document INF.15, paragraph 3.26)

Annex III

Proposal of amendments to the fourth revised edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

In section 2.1.3 re-number the NOTE after Table 2.1.2 to NOTE 1.

In section 2.1.3 add a new Note under Table 2.1.2 with the following text:

"NOTE 2: Substances and mixtures with a positive result in test series 2 in the *UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria*, Part I, section 12, which are exempted from classification as explosives (based on their packaging or other properties and the results in test series 6 in the *UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria*, Part I, section 16) still have explosive properties. The user may not be aware of these potential explosive properties once the conditions for exemption from classification as explosive are no longer met. To communicate the potential hazards in accordance with Table 1.5.2, the explosive properties of the substance or mixture should be communicated in Section 2 (Hazard Identification) and Section 9 (Physical and Chemical Properties) of the Safety Data Sheet, and other sections of the Safety Data Sheet, as appropriate."

(Reference document: informal document INF.17 as amended)
