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**Committee of Experts on the Transport of Dangerous Goods  
and on the Globally Harmonized System of Classification  
and Labelling of Chemicals****Sub-Committee of Experts on the Globally Harmonized  
System of Classification and Labelling of Chemicals****Report of the Sub-Committee of Experts on the Globally  
Harmonized System of Classification and Labelling of  
Chemicals on its twenty-seventh session**

held in Geneva from 2 to 4 July 2014

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## Annex

Draft amendments to the fifth revised edition of the Globally Harmonized System  
of Classification and Labelling of Chemicals (ST/SG/AC.10/30/Rev.5) .....

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## I. Attendance

1. The Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals held its twenty-seventh session from 2 to 4 July 2014, with Ms. M. Ruskin (United States of America) as Chairperson and Mr. Robin Foster (United Kingdom of Great Britain and Northern Ireland) as Vice-Chairman.
2. Experts from the following countries took part in the session: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Finland, France, Germany, Italy, Japan, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Korea, Russian Federation, South Africa, Spain, Sweden, United Kingdom of Great Britain and Northern Ireland, and United States of America.
3. Under rule 72 of the rules of procedure of the Economic and Social Council, observers from the following countries also took part: Romania and Switzerland.
4. Representatives of the United Nations Institute for Training and Research (UNITAR), the International Maritime Organization (IMO) and the World Health Organization (WHO) were present.
5. The following intergovernmental organizations were also represented: European Union and Organisation for Economic Co-operation and Development (OECD).
6. Representatives of the following non-governmental organizations took part in the discussion of items of concern to their organizations: American Cleaning Institute (ACI); Australian Explosives Industry and Safety Group Incorporated (AEISG); Compressed Gas Association (CGA); Croplife International; Dangerous Goods Advisory Council (DGAC); European Chemical Industry Council (CEFIC); European Industrial Gases Association (EIGA); Federation of European Aerosol Associations (FEA); Industrial Federation Paints and Coatings of Mercosul (IFPCM); International Bulk Terminals Association (IBTA); International Association for Soaps, Detergents and Maintenance Products (AISE); International Confederation of Plastics Packaging Manufacturers (ICPP); International Council of Chemical Associations (ICCA); International Council on Mining and Metals (ICMM); International Fibre Drum Institute (IFDI); International Paint and Printing Ink Council (IPPIIC); International Petroleum Industry Environmental Conservation Association (IPIECA); Responsible Packaging Management Association of Southern Africa (RPMASA); Sporting Arms and Ammunition Manufacturers' Institute (SAAMI) and The Grain and Feed Trade Association (GAFTA).

## II. Adoption of the agenda (agenda item 1)

Documents: ST/SG/AC.10/C.4/53 (Secretariat)  
ST/SG/AC.10/C.4/53/Add.1 (Secretariat)

*Informal documents:* INF.1, INF.2 and INF.7 (Secretariat)

7. The Sub-Committee adopted the provisional agenda prepared by the secretariat after amending it to take account of informal documents INF.1 to INF.26.

## III. Vice-Chairmanship of the Sub-Committee for 2014 (agenda item 2)

8. The Sub-Committee elected Mr. Robin Foster (United Kingdom of Great Britain and Northern Ireland) as Vice-Chair for 2014 (twenty-seventh and twenty-eight sessions).

## IV. Classification criteria and hazard communication (agenda item 3)

### A. Work of the Sub-Committee of Experts on the Transport of Dangerous Goods

#### 1. Physical hazards

- (a) *Use of cellulose in Test O.2 (Test for oxidizing liquids) and Test O.3 (Test for oxidizing solids)*

*Document:* ST/SG/AC.10/C.4/2014/4 (Germany)

*Informal documents:* INF.22, paragraph 2.2 (Secretariat)

9. The Sub-Committee concurred with the TDG Sub-Committee on the need to find an alternative cellulose grade for performing the tests, given that the one currently used would no longer be available on the market once the current stocks had been exhausted. The Sub-Committee therefore endorsed the recommendation by the TDG Sub-Committee to include an item in its programme of work for 2015-2016 on “Classification and testing of oxidizing liquids and solids” and entrusted the TDG Sub-Committee with the work as the GHS Sub-Committee’s focal point on physical hazards.

10. Several experts welcomed the offer from France to organize a round robin testing programme and to share the results with the TDG and the GHS Sub-Committees in due time. The expert from France invited all interested parties to contact him and said that he intended to submit a detailed calendar for the testing programme at the December 2014 session of both Sub-Committees.

- (b) *Correction to Figure 2.1.3: Procedure for assignment to a division in the class of explosives*

*Document:* ST/SG/AC.10/C.4/2014/11 (IME, SAAMI)

*Informal documents:* INF.22, paragraph 2.2 (Secretariat) and INF.23 (Secretariat)

11. The Sub-Committee noted the recommendation by the TDG Sub-Committee for a correction to figure 2.1.3 mirroring a correction adopted for the equivalent figure 10.3 in Section 10 of the Manual of Tests and Criteria.

12. Although acknowledging the rationale behind the proposal in INF.22 to replace in the GHS the reference to special provision 347 with the list of the UN numbers to which it applies, it was noted that the GHS does not contain references to UN numbers and therefore some experts thought that the reference to the special provision was preferable. It was recognized, however, that some additional guidance was needed to help GHS readers unfamiliar with transport regulations to find the text of the special provision in the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations.

13. After some discussion on the possible options, the Sub-Committee adopted the revised proposal in INF.23 with a minor additional correction (see annex).

- (c) *Definition of Division 1.6 articles in Chapter 2.1 of the GHS*

*Informal document:* INF.22, paragraph 2.4 (Secretariat)

14. The Sub-Committee noted that the TDG Sub-Committee had considered the question raised at the 26th session (see ST/SG/AC.10/C.4/52, paragraph 12) and had

concluded that there was no need to include the note regarding Division 1.6 articles in Chapter 2.1 of the GHS. The recommendation was endorsed by the Sub-Committee.

(d) *Criteria for water-reactivity*

*Informal document:* INF.22, paragraph 2.5 (Secretariat)

15. The Sub-Committee noted that the US Transportation Research Board study on criteria for water-reactivity had been finalized and the results would be transmitted to the Sub-Committee when the final report was published.

(e) *Classification of polymerizing substances*

*Informal document:* INF.22, paragraph 2.6 (Secretariat)

16. The Sub-Committee noted that the TDG Sub-Committee was considering whether polymerizing substances should be classified in Division 4.1 or in Class 9 for transport for the purposes of identifying the appropriate transport conditions and that, in its view, no impact on classification for sectors other than transport was foreseen. However, a few Sub-Committee experts considered that this might not be the case, in particular for storage.

17. GHS Sub-Committee experts were invited to participate in the work of the TDG Sub-Committee on this matter and to provide comments to the expert from Germany and the representative of DGAC at the TDG Sub-Committee in good time so that they could be taken into account for the revised proposal to be submitted at the December session (see also INF.31 submitted at the 45th session of the TDG Sub-Committee).

(f) *Desensitized explosives*

*Document:* ST/SG/AC.10/C.4/2014/2 (Germany)

*Informal documents:* INF.22, paragraph 2.1 (Secretariat)  
INF.24 (Germany, Canada, United States of America and Sweden)

18. There was general support for the adoption of provisions for classification and labelling in the GHS for desensitized explosives as well as the related testing method in the Manual of Tests and Criteria. However, a few experts expressed some concerns about some of the hazard communication elements in the proposal and suggested additional modifications. Several others stressed the importance of having desensitized explosives addressed in the next revised edition of the GHS to be published next year taking into account that in some jurisdictions the transitional period for the application of GHS implementing legislation to mixtures will expire in 2015. They said that in case the provisions were not adopted, a number of industrial facilities (e.g. printing facilities using desensitized nitrocellulose) would fall within the scope of legislation applicable to explosives facilities, e.g. as regards storage. Consideration of the comments made was entrusted to a small group who met during the coffee-breaks but could not reach an agreement.

19. The expert from Germany invited comments on the proposal and the corrections in INF.24 no later than 25 July 2014. Comments, as well as indications of interest in participating in the forthcoming phone conferences should be communicated to Ms. Michael-Schulz (heike.michael-schulz@bam.de). The expert from Germany said that a proposal revised in the light of the comments made would be submitted to the next session of both Sub-Committees.

**2. Other relevant issues****(a) Use of the Manual of Tests and Criteria in the context of the GHS**

*Document:* ST/SG/AC.10/C.4/2014/8 (Secretariat)

*Informal documents:* INF.5 and –Adds.1 to 5 (Secretariat)

INF.22, paragraph 2.7 (Secretariat)

20. The Sub-Committee welcomed the initiative and the work done by the secretariat and concurred with the TDG Sub-Committee on the need to revise the Manual of Tests and Criteria to include relevant references to the GHS. It was noted, however, that more time was needed to consider all the amendments proposed and their implications for all sectors. Moreover, in view of the significant number of amendments to the Manual which are expected to be adopted by the Committee in December 2014 and included in the 6th revised edition of the Manual to be published in 2015, the Sub-Committee considered that the revision should not be undertaken until the 6th revised edition of the Manual became available.

21. In the meantime, the Sub-Committee agreed to include the revision of the Manual in its programme of work for 2015-2016. Experts were invited to consider the proposed amendments in documents INF.5 and –Adds.1 to 5, to identify all non-editorial issues requiring further consideration for their possible implications for other sectors or consequential amendments for the Model Regulations on the Transport of Dangerous Goods, and to communicate them to the secretariat. A proposal for the scope of the revision to be carried out and the issues to be considered during the next biennium will be submitted to both Sub-Committees on the basis of the information received by the secretariat.

**(b) Evaluation of classification criteria and flammability categories for certain refrigerants**

*Informal document:* INF.22, paragraph 2.8 (Secretariat)

22. The Sub-Committee noted that work has been initiated, and that although some data was already available for evaluation, more data was expected to be generated following the availability of ISO 817. Therefore, the Sub-Committee endorsed the recommendation of the TDG Sub-Committee to keep this item on its programme of work for 2015-2016 and agreed to renew the mandate to the TDG Sub-Committee, as the focal point on physical hazards, to continue the work on this issue during that period.

**(c) Proposal for review of Chapter 2.1 of the GHS**

*Informal document:* INF.20 (Australia)

23. There was general support for the proposal and for the need to clearly define the scope of the revision. The expert from Germany recalled that she had submitted documents in the past (2005–2008) addressing issues related to Chapter 2.1 which were not followed up at that time and therefore welcomed the proposal by Australia for the revision of this chapter.

24. The Sub-Committee agreed to include this item in its programme of work for 2015-2016, and to seek the involvement of the TDG Sub-Committee as the focal point for physical hazards. The Chairman of the TDG Sub-Committee noted that this work would need to be examined by the Working Group on Explosives and that as its existing workload was already heavy, the outcomes may not be delivered quickly.

25. The expert from Australia invited comments in writing from all interested delegations so that a proposal regarding the scope of the work could be drafted in time to be submitted for consideration at the December session.

(d) *Work of the TDG Sub-Committee on explosives and related matters and other classification and hazard communication issues*

*Informal document:* INF.22, paragraphs 1.2 to 1.4, 3.1 and 3.2 (Secretariat)

26. The Sub-Committee noted that work on explosives and related matters was continuing in the TDG Sub-Committee. This included proposals regarding, for example, tests and criteria for flash compositions; the review of tests series 6 and parts I and II of the Manual of Tests and Criteria; and the review of packing instructions for explosives. Experts interested in these developments were invited to consult informal document INF.61 and its related annexes, submitted at the 45th session of the TDG Sub-Committee<sup>1</sup>, and to provide feedback in writing to that body.

27. The Sub-Committee also noted the information about the discussions at the TDG Sub-Committee on classification and hazard communication provisions for crude oil and classification of some substances evolving flammable vapours.

28. With regard to the discussion of substances evolving flammable vapours, the Sub-Committee noted that the issue raised in INF.31 (considered at the 45th session of the TDG Sub-Committee) related only to the two substances evolving flammable gases mentioned in the document. The representative from CEFIC confirmed that this was intentional since the aim of the proposed testing methodology was to identify the flammable content of these substances for transport only. However, the expert from the United States of America considered that the question of whether or not hazard communication for substances evolving flammable gases should be addressed in the GHS for workplaces deserved further consideration. He was invited to contact the representative of CEFIC and see whether there was enough support to request the Sub-Committee to include this item in its programme of work for 2015-2016.

## B. Practical classification issues

*Document:* ST/SG/AC.10/C.4/2014/10 (United States of America)

29. The Sub-Committee adopted without modifications the amendments to chapters 3.8 (paragraph 3.8.3.4.6), 3.7 (heading of table 3.7.1), 3.10 (paragraphs 3.10.3.3.1 to 3.10.3.3.2.3) and 4.1 (sections 4.1.3.5.5.3 and 4.1.3.5.5.4) proposed in the annex to the document (see annex).

30. The expert from the United States of America said that the group had agreed to continue the review of the definitions in the health hazard chapters as well as consideration of whether the development of definitions of terms such as “Unknown or Variable compositions, Complex reaction products and Biological materials (UVCBs)”, “complex substance” etc. was needed, in accordance with the terms of reference for the work of the group for 2014-2015. He anticipated that the work would not be completed during this biennium.

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<sup>1</sup> <http://www.unece.org/trans/main/dgdb/dgsubc3/c3inf45.html>

## C. Work of the TDG-GHS working group on corrosivity criteria

*Document:* ST/SG/AC.10/C.4/2014/3 (Netherlands)

*Informal documents:* INF.3, INF.3/Add.1 and INF.9 (Netherlands)  
INF.10 (United Kingdom)  
INF.18 (FEA)  
INF.19 (Spain)  
INF.21 (Netherlands)  
INF.22 paragraph 2.9 (Secretariat)

31. The joint TDG-GHS working group on corrosivity criteria met on 2 July 2014.

32. The joint working group welcomed the proposal for a revised Chapter 2.8 and agreed on its principles and structure. Experts considered with interest a mathematical approach to derive the packing group for corrosive mixtures and default classification, recognising that more work was needed to further develop the approach, in particular as regards the determination of a generic concentration limit for the purposes of transport of dangerous goods.

33. CEFIC volunteered to provide data on known corrosive mixtures and their assigned packing groups:

- (a) to assess the applicability of the proposed mathematical approach to mixtures; and
- (b) to assist the TDG Sub-Committee on the development of a methodology for the assignment of packing groups to corrosive mixtures, in particular where hazard classification as Class 8A or GHS skin corrosion category 1A is based on additivity and where sub-classification is not possible (e.g. where mixtures are classified on the basis of extreme pH values or of non-additivity).

34. The expert from the Netherlands invited comments from experts from both Sub-Committees by 16 July either on the proposal itself or on issues to be solved, with a view to preparing a revised proposal for Chapter 2.8 of the Model Regulations on the Transport of Dangerous Goods for the December session of both Sub-Committees.

35. The need for another meeting of the joint working group in December would be reviewed given that since the forthcoming sessions are the last of the current biennium, it will not be possible for the TDG Sub-Committee to consider any input from the joint working group for inclusion in the 19th revised edition of the Model Regulations to be published in 2015.

36. It was noted that the participants in the joint working group felt that the successful joint work on skin corrosion had raised the prospect of more systematic joint work between both Sub-Committees in the future on other common issues such as physical hazards. Both Sub-Committees and the secretariat were invited to consider this possibility further.

## D. Dust explosion hazards

*Informal documents:* INF.6 (CEFIC)  
INF.17 (United States of America)  
INF.22 paragraph 2.10 (Secretariat)  
INF.26 (United States of America)

37. Views were divided on how to address dust explosion hazards in the GHS, either by introducing a new hazard class or through specific guidance, to provide for a worldwide harmonized approach. Some experts considered that dust explosion was not an intrinsic property and therefore was out of the scope of the GHS. In addition, they considered that this hazard was covered by workplace regulations in many countries or addressed on a case by case basis through risk assessment procedures. Others considered that it was appropriate to address it in the GHS bearing in mind that following the building block approach, competent authorities have the discretion to choose the building blocks to be applied within their jurisdictions.

38. After some discussion, the Sub-Committee agreed that the informal group on dust explosion hazards should continue to work on this issue on a step by step basis. First, it should agree on a definition for “combustible dust” and then develop the related criteria and discuss hazard communication. The Sub-Committee would consider at that point whether to include dust explosion hazards in the GHS as a new hazard class or as guidance.

39. The Sub-Committee noted that the TDG Sub-Committee, as the focal point for physical hazards, had expressed its willingness to contribute to this work for all sectors if the GHS so decided.

40. The Sub-Committee also noted the outcome of the meeting of the informal working group held on 3 July 2014 as contained in INF.26.

## E. Aspiration hazard: viscosity criterion for classification of mixtures

41. The representative of IPPIC said that work on this issue continued and that she intended to submit a document for consideration by the Sub-Committee at its next session.

## F. Nanomaterials

*Document:* ST/SG/AC.10/C.4/2014/9 (France)

42. The Sub-Committee noted that the informal group had identified a small number of nanomaterials for which data were available and intended to assess the applicability of GHS criteria for their classification. The expert from France also informed the Sub-Committee that the informal group would continue the discussions on on-going work related to classification of these materials in other international, regional or national bodies. He announced that he intended to submit a document on this issue to the next session of the Sub-Committee.

## G. Miscellaneous

### 1. Pyrophoric gases

*Document:* ST/SG/AC.10/C.4/2014/5 (United States of America)

*Informal documents:* INF.4 and INF.11 (United States of America)  
INF.22, paragraph 2.11 (Secretariat)

43. The Sub-Committee adopted the proposal in paragraphs 8 to 10 in document ST/SG/AC.10/C.4/2014/5 as amended by INF.11 (see annex).

44. The expert from the United States of America was invited to address the questions raised by the TDG Sub-Committee during the consideration of the proposal at its 45th session (see INF.22, paragraph 2.11) in a formal document to be submitted to the next session of both Sub-Committees.

### 2. Proposal for additional guidance in Chapter 3.2 (Skin corrosion/irritation)

*Informal document:* INF.13 (IPPIC)

45. The Sub-Committee did not see the need to include specific guidance in the GHS on the use of old data since it considered that this was already covered by the tiered and weight of evidence approach prescribed by the GHS for “skin corrosion/irritation” classification.

## V. Hazard communication issues (agenda item 4)

### A. Revision of section 9 of Annex 4

*Document:* ST/SG/AC.10/C.4/2014/1 (Germany)

46. The Sub-Committee noted the proposal in the document from Germany and the outcome of the meeting of the informal group held on 2 July 2014. The informal group had continued the discussions on several entries and data in the tables in annex 1 to the document. The informal group also considered rationalizing the order of the entries in section 9 of table 1.5.2 in Chapter 1.5 of the GHS but could not come to a conclusion during the meeting.

47. The informal group was invited to consider the guidance on classification documentation developed within the TDG Sub-Committee for explosives (see INF.61, Annex 2, amendments to section 2.1.3, paragraph 2.1.3.7.4)<sup>2</sup>.

48. The expert from Germany invited comments on the proposal in document ST/SG/AC.10/C.4/2014/1 either in writing or during the next phone conference to be held before the end of July. She said that the informal group intended to complete the work during this biennium and that a working document would be submitted to the next session of the Sub-Committee.

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<sup>2</sup> <http://www.unece.org/trans/main/dgdb/dgsubc3/c3inf45.html>

## B. Labelling of small packagings

*Document:* ST/SG/AC.10/C.4/2014/6 (CEFIC)

*Informal document:* INF.6 (CEFIC)

49. The Sub-Committee adopted, with two minor amendments, the example of labelling of a small packaging proposed in paragraph 4 of the document and agreed to include it in Annex 7 of the GHS. The adopted amendments were as follows: deletion of “(substance name)” in the first bullet following the introductory paragraph under the heading “Immediate container” and a change in the layout of the graphic representation of the small packaging and its label elements.

50. The representative of CEFIC was invited to submit a document to the next session of the Sub-Committee including the graphic representation of the small packaging amended in accordance with the comments received from the informal group and endorsed by the Sub-Committee and indicating how the new example should be inserted in Annex 7 of the GHS.

51. The Sub-Committee noted that the informal group had agreed to develop a new example addressing labelling of a small packaging with a multilingual fold-out label.

## C. Improvement of annexes 1 to 3 and further rationalization of precautionary statements

52. The informal working group on the improvement of annexes 1 to 3 and further rationalization of precautionary statements met on 3 July 2014.

53. The Sub-Committee noted that the informal working group had considered a working document on minor corrections to certain physical hazard precautionary statements and intended to submit an official document on this issue to the next session.

54. It was also noted that the informal working group had also discussed ideas to reduce the number of precautionary statements on “seeking medical advice/attention” and “calling a poison centre/doctor” by introducing some adjustments to the precedence principles in A3.3.2.2 and A3.3.4.6 of the GHS. The informal working group agreed that a broad approach should be developed but recognized that more work was needed before a concrete proposal could be formulated. This would include a more detailed consideration of the introductory texts to the annex and the development of additional examples. The informal working group will continue to inform the Sub-Committee on the progress of this work.

## D. Miscellaneous

### 1. Large pictograms on portable tanks and MEGCs during transport

*Informal document:* INF.12 (DGAC)

55. There was support for the proposal to add provisions in paragraph 1.4.10.5 of the GHS on the use of GHS label elements on portable tanks and multiple element gas containers (MEGCs). However, several experts considered that the text should be further developed and provided some comments. It was also suggested that clarifying the text in 1.4.10.5.4.1 might address DGAC’s concerns. Views were divided on the need to include a specific example in Annex 7 or to revise the existing examples to clarify that they apply to portable tanks and MEGCs.

56. The representative of DGAC took note of the comments made and said that he would submit a revised proposal for the next session of the Sub-Committee.

**2. Minor variations in hazard and precautionary statements**

*Document:* ST/SG/AC.10/C.4/2014/7 (FEA, CSPA, IPPIC, AISE)

57. There was general agreement that enforcement authorities should take a practical and common sense approach when dealing with minor linguistic variations not compromising safety. However, while some experts felt that to minimize enforcement problems some guidance could be included in the GHS, others felt that this would not be appropriate since it was the responsibility of national competent authorities to decide how to implement GHS provisions nationally and to ensure their enforcement. As a compromise solution, some experts suggested that some guidance could be included in the introductory paragraphs in Annex 3 and recommended that the issue be considered by the informal working group on the improvement of annexes 1 to 3. The Sub-Committee agreed with this recommendation.

**VI. Implementation of the GHS (agenda item 5)****A. Development of a list of chemicals classified in accordance with the GHS**

*Informal document:* INF.15 (United States of America)

58. The informal working group on the development of a list of chemicals classified in accordance with the GHS met on 3 July 2014.

59. The Sub-Committee noted that during the meeting, the informal working group had considered a proposal from OECD for the work plan for the pilot classification project.

60. Under the proposed work plan the Sub-Committee would be responsible for selecting the chemicals to be included in the pilot classification project from all those proposed, while the party (country, international, governmental or non-governmental organization, referred to hereafter as the “sponsor”) that had nominated the chemical for the classification project would be responsible for the preparation of the draft data assessment and classification. The draft assessment and classification would then be posted on a password-protected OECD website and opened for comment. The sponsor would revise the assessment and classification in response to comments, and an OECD working group would consider the revised draft assessment and classification. Outstanding issues could be discussed in a teleconference or face-to-face meeting. The results of the exercise, including the agreed classification, if reached, would be reported to the Sub-Committee, which may wish to adopt it or to return it with comments. Resources used would be tracked.

61. The informal working group agreed to the work plan proposed by the OECD though some experts considered that the work should focus on developing a list of those chemicals that had GHS classifications in the currently existing classification lists.

62. The informal working group considered a two-step approach, in which agreement on the data assessment would first be sought before a classification was performed. However, it had finally concluded that it would be better to do it in one step (i.e: comments on both the assessment and classification would be considered together) since the classification could be easily performed once the assessment was completed, and this approach would allow commenters to assess the relevance of missing data.

63. The representative of the OECD indicated that stakeholder comments could be received through the OECD’s password-protected website, and confirmed that non-governmental organizations could sponsor chemicals. He also noted that it was important

for the success of the pilot classification exercise for interested countries to coordinate with their OECD delegations to ensure their participation.

## **B. Reports on the status of implementation**

### **Canada**

*Informal document: INF.25 (Canada)*

64. The Sub-Committee noted that the legislative amendments to implement the GHS in the workplace had received royal assent on 19 June 2014 and would come into force once the regulatory amendments are completed. It was also noted that the proposed regulations will substantially harmonize Canadian classification and hazard communication for workplace chemicals with those of the United States of America and other countries which had already implemented the GHS.

65. It is expected that the amended legislation and regulations will come into force on or before 1 June 2015 with a transitional period for implementation.

## **C. Cooperation with other bodies or international organizations**

### **Asia-Pacific Economic Cooperation (APEC) Chemical Dialogue**

66. The expert from the Russian Federation updated the Sub-Committee on the on-going activities of the APEC Chemical Dialogue.

67. The Sub-Committee noted that at the 2013 APEC Ministerial Meeting, Ministers had welcomed work on regulatory cooperation and convergence and “participation in the establishment of the global non mandatory list of chemicals classified according to the Global Harmonized System of classification and labelling of chemicals (GHS) lead by UN Sub-Committee of Experts on GHS”<sup>3</sup>.

68. It was also noted that the APEC Chemical Dialogue had agreed that any activities undertaken by its Virtual Working Group on GHS Data Exchange for the development of a list of chemicals classified in accordance with the GHS should be complementary and non-duplicative of the work being done by the Sub-Committee on the same issue and that the agreed principles for the development of the list should be respected. At its next meeting in Beijing in August 2014, the APEC Chemical Dialogue will discuss the next steps for the establishment of a procedure enabling the APEC Chemical Dialogue to provide input to the Sub-Committee on the development of the list.

69. The Sub-Committee welcomed the work being done by APEC Chemical Dialogue as well as any possibility to strengthen cooperation between the two bodies.

## **D. Miscellaneous**

70. As no document had been submitted, this item was not discussed.

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<sup>3</sup> Paragraph 30 of the Joint Ministerial Statement (the [http://www.apec.org/Meeting-Papers/Ministerial-Statements/Annual/2013/2013\\_amm.aspx](http://www.apec.org/Meeting-Papers/Ministerial-Statements/Annual/2013/2013_amm.aspx)).

## **VII. Development of guidance on the application of GHS criteria (agenda item 6)**

71. As no document had been submitted, this item was not discussed.

## **VIII. Capacity building (agenda item 7)**

*Informal document: INF.8 (UNITAR)*

72. The Sub-Committee noted the information detailed in INF.8 regarding GHS implementation projects and related activities in several countries.

73. The Sub-Committee also noted that the course materials of the e-learning course “Classifying and Labelling chemicals according to the GHS”<sup>4</sup> had been updated in accordance with the fifth revised edition of the GHS and that the next e-learning course was scheduled to take place from 15 September to 23 November 2014. The representative of UNITAR said that her organization was planning to offer the e-learning course in Spanish by the end of 2014 or beginning of 2015 to respond to increasing demand from Latin American countries and that work on the GHS module for the “IOMC toolbox for decision-making in chemicals management (IOMC Toolbox) developed by UNITAR and the International Labour Organization (ILO) was continuing.

## **IX. Other business (agenda item 8)**

### **Condolences**

74. The Sub-Committee learnt with great sadness that Ms. Iona Pratt had passed away on 12 February 2014. Ms. Pratt was one of the architects of the GHS. She had chaired the ILO Working Group that developed the harmonized approach to hazard communication in the GHS, represented Ireland in the Sub-Committee for several years, and participated in other aspects of the harmonization process as well as in GHS capacity building activities under the auspices of UNITAR. Her extensive knowledge of toxicology and workplace safety and health, had been critical to the development of the GHS. The Sub-Committee requested the Chairperson to transmit condolences to Ms. Pratt’s family on its behalf.

## **X. Adoption of the report (agenda item 9)**

75. The Sub-Committee adopted the report on its twenty-seventh session on the basis of a draft prepared by the secretariat.

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<sup>4</sup> <http://www.unitar.org/event/classifying-and-labelling-chemicals-according-un-ghs>

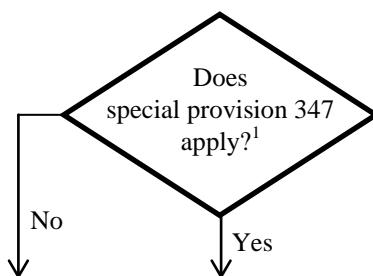
## Annex

### Draft amendments to the fifth revised edition of the Globally Harmonized System of Classification and Labelling of Chemicals (ST/SG/AC.10/30/Rev.5)

#### Chapter 2.1

**Document ST/SG/AC.10/C.4/2014/11:** Proposal adopted as amended by INF.23, as follows:

Figure 2.1.3 Amend Figure 2.1.3 of the GHS by inserting the following new box in the “No” line between the boxes that read “Would the hazard hinder fire-fighting in the immediate vicinity?” and “Are there hazardous effects outside the package?” as follows:



Insert a footnote under the flowchart to read as follows:

<sup>1</sup> See Chapter 3.3 of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations for details.”.

#### Chapters 3.7, 3.8, 3.10 and 4.1

**Document ST/SG/AC.10/C.4/2014/10, Annex:** Adopted without modifications

#### Chapter 2.2 and annexes 1 and 3

**Document ST/SG/AC.10/C.4/2014/5:** Proposals in paragraphs 8 to 10 adopted as amended by INF.11, as follows:

- Paragraph 8(c), second bullet:

In Note 2 to Table 2.2.2, replace “its auto-ignition temperature” by “its pyrophoricity” and “is classified” by “should be classified”

- Paragraph 8 (d), second bullet:

In section 2.2.3, replace “table 2.2.3” by “table 2.2.4” (twice)

- Paragraph 8(e), second bullet:

In the footnote to decision logic 2.2 (b):

- place the reference to the footnote after the question mark; and

- (b) replace “*its auto-ignition temperature*” by “*its pyrophoricity*” and “*is classified*” by “*should be classified*”

- Paragraph 8 (e), fifth bullet:

For Section 2.2.4.2:

- (a) In paragraph 2.2.4.4.2, insert “at 54°C” after “should be determined”

- (b) In paragraph 2.2.4.4.3:

- (i) delete “or mixture”

- (ii) insert the following text at the end of the first sentence:

“Flammable gas mixtures, which have not been tested for pyrophoricity and contain more than one percent pyrophoric components, should be classified as a pyrophoric gas. Expert judgement on the properties and physical hazards of pyrophoric gases and their mixtures should be used in assessing the need for classification of flammable gas mixtures containing one percent or less pyrophoric components. In this case, testing need only be considered if expert judgement indicates a need for additional data to support the classification process.”

- Paragraph 10 (b):

Delete “P233 and” in the heading of the first proposed amendment so that the amendment becomes applicable only to “P280”. The proposed amendment to P222 remains unchanged.

Consequential amendment: In the matrix for “Flammable gases (pyrophoric gases)” delete precautionary statement P233.

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