



**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-fourth session**

held in Geneva from 12 to 14 December 2012

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Report

I. Attendance

1. The Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals held its twenty-fourth session from 12 to 14 December 2012, with Ms. Kim Headrick (Canada) as Chairperson and Mr. Thomas Gebel (Germany) and Ms. Elsie Snyman (South Africa) as vice-chairpersons.
2. Experts from the following countries took part in the session: Argentina, Austria, Belgium, Brazil, Canada, China, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Poland, Portugal, Republic of Korea, Russian Federation, South Africa, Sweden, United Kingdom of Great Britain and Northern Ireland, United States of America and Zambia.
3. Under rule 72 of the rules of procedure of the Economic and Social Council, observers from the following countries also took part: Chile, Philippines and Switzerland.
4. Representatives of the United Nations Institute for Training and Research (UNITAR) and of the following specialized agencies were present: International Maritime Organization (IMO) and World Health Organization (WHO).
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; European Chemical Industry Council (CEFIC); European Industrial Gases Association (EIGA); Fertilizer Europe (FE); Federation of European Aerosol Associations (FEA); Industrial Federation Paints and Coats of Mercosul (IFPCM); International Association for Soaps, Detergents and Maintenance Products (AISE); International Council on Mining and Metals (ICMM); International Dangerous Goods and Containers Association (IDGCA); International Paint and Printing Ink Council (IPPIC); International Petroleum Industry Environmental Conservation Association (IPIECA); Responsible Packaging Management Association of Southern Africa (RPMASA) and Sporting Arms and Ammunition Manufacturers' Institute (SAAMI).

II. Adoption of the agenda (agenda item 1)

Documents: ST/SG/AC.10/C.4/47 (Secretariat)
ST/SG/AC.10/C.4/47/Add.1 (Secretariat)

Informal documents: INF.1, INF.2, INF.6, INF.7 and INF.7/Add.1 (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.40 and the withdrawal of document INF.9.

III. Updating of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (agenda item 2)

A. Recommendations made by the Sub-Committee at its twenty-first, twenty-second and twenty-third sessions

Document: ST/SG/AC.10/C.4/2012/29 (Secretariat)

8. The Sub-Committee confirmed the decisions taken at its previous sessions on the basis of the draft prepared by the secretariat except for the text of sections 3.2.5.3 and 3.3.5.3 (see annex I), on the understanding that it would be examined as part of the proposal for the revision of chapters 3.2 and 3.3 contained in documents ST/SG/AC.10/C.4/2012/12 and ST/SG/AC.10/C.4/2012/13.

B. Physical hazards

1. Alternative test method for oxidizing solids

Document: ST/SG/AC.10/C.4/2012/11 (Germany)

9. The Sub-Committee endorsed the views and recommendations expressed by the Sub-Committee of Experts on the Transport of Dangerous Goods (TDG Sub-Committee) that the new O.3 test is equivalent and preferable to the current O.1 and concurred with its decision to include it, as amended, in the Manual of Tests and Criteria. Consequently, the Sub-Committee adopted the amendments to Chapter 2.14 of the GHS contained in paragraphs 11 and 12 of the document, with one additional amendment intended to correct the reference to the Code of Safe Practice for Solid Bulk Cargoes (BC Code) in note 1 to Table 2.14.1 (see annex I).

10. It was recognized however that before taking a decision on whether or not test O.3 should replace test O.1 and on the need to define a transitional period for such replacement, further work on both tests was necessary to solve all the identified issues as well as those that may arise as experience with the implementation of the O.3 test is gained. The Sub-Committee noted that work to this end was expected to continue within the TDG Sub-Committee during the next biennium.

2. Screening procedure for potential explosives

Document: ST/SG/AC.10/C.4/2012/14 (Sweden)

11. The proposal was supported in principle. However, noting that the TDG Sub-Committee had not considered it due to lack of time, and the concerns expressed by one delegation on the possible consequences of the proposed changes, the Sub-Committee decided to carry the issue over to the next biennium.

3. Self-reactive substances and mixtures: corrections to Chapter 2.8

Document: ST/SG/AC.10/C.4/2012/17 (Canada)

12. The proposal was adopted (see annex II).

4. Aerosols: editorial amendments to Chapter 2.3

Document: ST/SG/AC.10/C.4/2012/23 (Sweden)

13. The proposal was adopted (see annex I).

5. Desensitized explosives

14. The Chairman of the TDG Sub-Committee's working group on explosives informed the Sub-Committee that work on desensitized explosives would continue during the next biennium (see annex IV) and that the group intended to submit written proposals to both sub-committees for consideration at their next sessions.

C. Health hazards

Editorial revision of Chapters 3.2 and 3.3

Documents: ST/SG/AC.10/C.4/2012/12 (Germany)
ST/SG/AC.10/C.4/2012/13 (Germany)

Informal documents: INF.3, INF.3/Add.1, INF.4, INF.4/Add.1 and INF.26 (Germany)

15. The proposals in documents ST/SG/AC.10/C.4/2012/12 and ST/SG/AC.10/C.4/2012/13 were adopted as amended by INF.26 with one minor additional correction to paragraph 3.3.2 (b) (see annex I).

D. Annexes

1. Amendments to physical hazard precautionary statements

Documents: ST/SG/AC.10/C.4/2012/19 (United Kingdom)
ST/SG/AC.10/C.4/2012/20 (United Kingdom)

Informal documents: INF.5, INF.5/Add.1 (Germany) and INF.29 (Secretariat)

16. The proposals in documents ST/SG/AC.10/C.4/2012/19 and ST/SG/AC.10/C.4/2012/20 were adopted as amended by INF.5, INF.5/Add.1, with an additional amendment to P313 and P315 (see annex I).

17. The Sub-Committee agreed that work on this issue should continue in the next biennium (see annex IV) and agreed to the terms of reference proposed in paragraph 12 of document ST/SG/AC.10/C.4/2012/19.

2. Improvement of the presentation of annexes 1 and 2 of the GHS

Document: ST/SG/AC.10/C.4/2012/22 (Sweden)

Informal document: INF.31 (Canada)

18. The proposal was adopted as amended by INF.31, with one additional amendment to the layout of the proposed tables A1.1 to A1.29 intended to make it clear that the hazard statement codes are not part of the labelling elements (see annex I).

E. Miscellaneous proposals

1. Serious eye damage/eye irritation: amendments to hazard statements

Document: ST/SG/AC.10/C.4/2012/16 (Canada)

19. The proposal was adopted (see annex I).

2. Deletion of the exclamation mark following the signal words in the decision logic diagrams in the French version of the GHS

Document: ST/SG/AC.10/C.4/2012/18 (Canada)

20. The proposal was adopted (see annex I).

3. GHS pictogram codes for sectors other than transport

Document: ST/SG/AC.10/C.4/2012/21 (United Kingdom)

Informal document: INF.19 (United Kingdom)

21. The proposal was adopted as amended by INF.19 with one additional editorial amendment to paragraphs 1.4.10.4.3 and A3.4.1.3 (see annex I).

4. Corrections to Chapter 4.1 and Annex 9

Document: ST/SG/AC.10/C.4/2012/24 (Sweden/United States of America)

22. The corrections were adopted (see annex). The Sub-Committee was informed that the corresponding text of Chapter 2.9 of the Model Regulations would have to be amended accordingly and that the TDG Sub-Committee had entrusted the secretariat with this task in order to maintain alignment between the GHS and the Model Regulations (see annex II).

5. Corrections to Figure 2.1.3 in Chapter 2.1

Document: ST/SG/AC.10/C.4/2012/31 (Secretariat)

23. The corrections were adopted (see annex II).

6. Deletion of several OECD Tests Guidelines

Informal document: INF.14 (OECD)

24. The Sub-Committee was informed that several guidelines had been deleted, and adopted the proposal in paragraph 7 of the document, as it was regarded as a technical amendment to the GHS. The Sub-Committee also decided to amend accordingly the text of the current footnote in Annex 9, Appendix V (see annex I).

IV. Hazard communication issues (agenda item 3)

A. Hazard communication in the supply/use sector for substances and mixtures “Corrosive to metals”

Document: ST/SG/AC.10/C.4/2012/15 (AISE)

Informal documents: INF.29 (Secretariat) and INF.33 (AISE)

25. The Sub-Committee noted that, although the TDG Sub-Committee had not reached consensus on any of the proposed options, those who expressed a preference favoured option B. However, it was also noted that the TDG Sub-Committee had expressed concerns

with regard to the introduction of new pictograms at this early stage of GHS implementation.

26. The Sub-Committee also noted that the informal working group, having considered the views expressed by the TDG Sub-Committee, and aware of the potential downstream consequences of adopting any of the proposed options and of the lack of consensus on a preferred option, had concluded:

- (a) that work on this issue should be discontinued for the time being,
- (b) that the temporary solution currently provided in paragraph 1.4.10.5.5 of the GHS should be maintained, and
- (c) that the issue could be reconsidered again, once experience and information on consumer understanding of the labelling have been gathered.

27. Sub-Committee experts and industry representatives were invited to share their experiences in relation to sub-paragraph (c) above.

28. The Sub-Committee endorsed the conclusions of the informal working group outlined in paragraph 26 above.

B. Inclusion of transport pictograms in Section 14 of the Safety Data Sheet

Document: ST/SG/AC.10/C.4/2012/27 (Ireland)

29. There was some support for the proposal. However, taking account of the concerns expressed by some delegations, the Sub-Committee considered that it needed to be further developed and entrusted its consideration to the informal correspondence group on practical classification issues for the next biennium (see INF.34).

C. Labelling of small packagings

Informal document: INF.21 (CEFIC)

30. The Sub-Committee acknowledged the work done by the informal working group so far and endorsed the steps proposed by the group for the organization of its work during the next biennium, as follows:

- (a) work will focus on the development of one or two examples illustrating the general principles applicable to the labelling of small packagings and addressing, to the extent possible, the issues listed in paragraph 5 of INF.21.
- (b) Once the group has reached agreement on one example it may consider developing one more example illustrating a more complex case.

D. Revision of Section 9 of the Safety Data Sheet

Informal document: INF.36 (Germany)

31. The Sub-Committee noted that the informal working group intended to submit a preliminary proposal to the next session of the Sub-Committee to get its feedback and agreed to keep this item in its programme of work for the next biennium (see annex IV).

E. Dust explosion hazards

Document: ST/SG/AC.10/C.4/2012/28 (United States of America)

32. The proposal in paragraph 6 of the document was adopted with a minor editorial correction to A4.3.2.3 and A4.3.5.1 (see annex I).

V. Implementation of the GHS (agenda item 4)

A. Implementation issues

1. Practical classification issues

Document: ST/SG/AC.10/C.4/2012/25 (United States of America)

Informal document: INF.35 (United States of America)

33. The Sub-Committee adopted the proposals in annex 1 to document ST/SG/AC.10/C.4/2012/25, as amended by INF.35 (see annex I).

34. The examples to be included in UNITAR's advanced course on the GHS were also adopted. Noting that the training course was not publicly available, most experts expressed their wish that examples be made available for consultation. The Sub-Committee concluded that the best option available to disseminate this information was to include the examples on the UNECE secretariat's webpage on guidance on the GHS.¹

2. Development of a list of chemicals classified in accordance with the GHS

Document: ST/SG/AC.10/C.4/2012/26 (United States of America)

Informal documents: INF.30 (Netherlands) and INF.38 (United States of America)

35. The Sub-Committee adopted the guiding principles for the development of a list of chemicals classified in accordance with the GHS contained in document ST/SG/AC.10/C.4/2012/26 as amended by INF.38 (see annex III).

B. Reports on the status of implementation

1. Canada

Informal document: INF.20 (Canada)

36. The Sub-Committee noted that Canada has committed to achieving implementation of the GHS for the workplace by 1 June 2015 and is working actively on the amendment of the relevant pieces of legislation (and in particular the Hazardous Products Act and the Controlled Products Regulations) to meet that deadline.

2. Switzerland

Informal document: INF.32 (Switzerland)

37. The Sub-Committee noted that a new amendment of the Swiss Chemical Ordinance entered into force on 1 December 2012. The Ordinance had already been amended twice in

¹ <http://www.unece.org/trans/danger/publi/ghs/guidance.html>

2009 and 2010 to avoid technical barriers to trade and to allow the placing on the market of chemicals already classified according to GHS. Some of the major changes introduced by the new amendment include an obligation for suppliers to classify and label substances in accordance with the GHS, as well as several obligations related to notification duties, handling of certain dangerous substances and hazard labelling.

38. It was also noted that an information campaign to promote the new pictograms and hazard communication elements addressing different sectors and audiences had been launched in September 2012 and was expected to be conducted until 2014.

3. European Union

39. The Sub-Committee noted that the draft proposal prepared by the European Commission to align the provisions of the Classification, Labelling and Packaging Regulation (also known as the CLP Regulation) with those of the fourth revised edition of the GHS had been favourably received by the relevant regulatory committee and was expected to be formally adopted during the first half of 2013. The new provisions will apply to substances from 1 December 2014 and to mixtures from 1 June 2015, but may be voluntarily applied before those dates. Transitional provisions are foreseen for substances and mixtures already on the market on those dates.

40. Detailed information about the CLP Regulation, as well as an unofficial consolidated version of the CLP Regulation including the provisions of the various adaptations to technical progress are available on the European Commission website.²

4. Brazil

41. The Sub-Committee noted that the Brazilian Standard ABNT NBR 14725:2009 was being revised in accordance with the provisions of the fourth revised edition of the GHS. The revised parts 3 and 4 (dealing with labelling and Safety Data Sheets, respectively) had already been published, while the publication of the revised Part 2 (dealing with hazard classification) was expected in 2013.

42. It was also noted that the standard was already using the coding system for GHS pictograms adopted by the Sub-Committee at the present session.

5. Japan

43. The Sub-Committee noted that Japanese standards required labels and GHS-compliant Safety Data Sheets and that classification of substances under the Industrial Safety and Health Law and the Pollutant Release and Transfer Registration Law (PRTR law) in accordance with the GHS continued. It was also noted that classification results for more than 2000 substances were available in English.

6. Philippines

44. The Sub-Committee noted that the revision of occupational health and safety standards implementing the GHS in the workplace was expected to be completed soon, and that two Administrative Orders (for industrial and consumer chemicals) were under preparation.

45. It was also noted that several training, capacity building and awareness raising activities addressed to a wide variety of audiences (e.g. academia, industry, government, civil society groups, consumers) had been conducted in different locations.

² http://ec.europa.eu/enterprise/sectors/chemicals/documents/classification/index_en.htm

7. China

46. The Sub-Committee noted that inspections of labels and Safety Data Sheets had been carried out in relation to the import and export of dangerous goods.³

8. South Africa

47. The Sub-Committee noted that standard SANS 10234:2008 was being revised in accordance with the fourth revised edition of the GHS.

9. Zambia

48. The Sub-Committee noted that the update of the GHS national standard to bring it in line with the fourth revised edition of the GHS had already been endorsed and that both the revision and the update of the standard on the transport of dangerous goods had been completed.

10. Alignment of the Convention on the Transboundary Effects of Industrial Accidents with the GHS

Informal document: INF.23 (Secretariat)

49. The Sub-Committee noted that the Conference of the Parties to the Convention on the Transboundary Effects of Industrial Accidents⁴ had requested the Working Group on the Development of the Convention to align its Annex I with the fourth revised edition of the GHS. The alignment will ensure consistency between the Convention and the provisions of Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances (also known as Seveso III Directive).⁵

50. Sub-Committee experts were invited to share their expertise with their colleagues responsible for the Convention (or, in the case of member States of the European Union, the Seveso Directive).

C. Cooperation with other bodies or international organizations**1. Work of the joint TDG-GHS working group on corrosivity criteria**

Informal documents: INF.8 (CEFIC), INF.12 (CEFIC), INF.17 (Netherlands) INF.16 (United Kingdom), and INF.29 (Secretariat)

51. The Sub-Committee noted that the group had considered the proposals in INF.8, and had concluded that in view of the diverging views it was too early for the development of detailed amendments. On the contrary, there was agreement that the classification regime should lead to harmonized results in all sectors. The expert from the United Kingdom volunteered to develop a document to be submitted to the forthcoming session of both sub-committees detailing the possible options to be considered.

52. The Sub-Committee agreed to keep this item in its programme of work for the next biennium (see annex IV) and requested the secretariat and the bureau of both sub-

³ More information is available at: <http://english.aqsiq.gov.cn/>

⁴ <http://www.unece.org/env/teia.html>

⁵ Available at : <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:197:0001:0037:EN:PDF>

committees to allocate time for a meeting of the joint informal working group during the forthcoming session of the TDG or the GHS sub-committees.⁶

2. Work of the Sub-Committee of Experts on the Transport of Dangerous Goods on its forty-second session

Informal document: INF.29 (Secretariat)

(a) *Adoption of expert judgement and weight of evidence procedures in the Model Regulations on the Transport of Dangerous Goods*

53. The Sub-Committee noted that the concepts of “known experience” and “expert judgement” were also used in the context of the Model Regulations but not “weight of evidence”. It was recommended that proposals addressing interpretation of these concepts be submitted to both sub-committees.

(b) *Classification of polymerizing substances*

54. The Sub-Committee agreed to include this item in its programme of work for the next biennium, and entrusted the work to the TDG Sub-Committee (see annex IV).

55. Following a question posed by a few experts on the possible involvement of an expert body outside the TDG or the GHS sub-committees, a member of the secretariat explained that both sub-committees had their own terms of reference and they did not have the power to delegate their own work to other organizations unless agreed by the Economic and Social Council, nor to provide binding mandates to such organizations. He recalled that the sub-committees were not authorized to create adhoc subsidiary bodies to meet intersessionally, but this did not prevent their experts from organizing intersessional meetings of informal groups, preferably open to all experts, in order to facilitate progress on some specific issues. Nevertheless, the outcome of such work or any other input from outside organizations or informal groups could only be considered as proposals to be submitted by appropriate entities in accordance with the procedures, and to be further discussed formally by the sub-committees themselves.

(c) *Classification of substances mentioned by name in the dangerous goods list, interpretation of the Model Regulations*

56. The Sub-Committee welcomed the information provided, as well as any future updates.

VI. Development of guidance on the application of GHS criteria (agenda item 5)

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

⁶ Note by the secretariat: The Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals decided at its sixth session that the meeting of the joint working group will take place on Monday 1 July 2013 (a.m).

VII. Capacity building (agenda item 6)

Informal document: INF.27 (UNITAR)

58. The Sub-Committee noted that several activities were scheduled or had already been conducted under the UNITAR/ILO and the UNITAR/ILO/OECD capacity building programmes and partnerships. These activities include:

- (a) GHS awareness raising activities, training sessions and/or workshops conducted in Barbados, Gambia, Zambia, the Republic of Congo, the Democratic Republic of Congo and Chile, funded through the Strategic Approach to International Chemicals Management (SAICM) Quick Start Programme Trust Fund (QSPTF). Other activities funded through the same fund are expected to start early in 2013 in Bolivia, Guatemala, Colombia, Mexico, Kyrgyzstan and Tajikistan.
- (b) Project activities for capacity building to implement the GHS in China, Indonesia, Malaysia, Philippines and Thailand, funded by the European Union, which will be completed soon, while several awareness raising activities (including specific training for industry, government and civil society) have already been conducted in the participating countries.
- (c) At the regional level, as part of GHS regional projects funded by the SAICM Quick Start Programme Trust Fund:
 - (i) A GHS stocktaking and training workshop held in Moldova in July 2012 for Central and Eastern European countries;
 - (ii) A Caribbean sub-regional conference on GHS which is expected to be held in April 2013 in Jamaica.

59. It was also noted that a GHS Review Conference for countries of the Association of Southeast Asian Nations (ASEAN) is expected to be held in Kuala Lumpur, Malaysia, and that a regional campaign on chemicals safety is also being implemented in the region, in collaboration with the Federation of Malaysian Consumers Associations (FOMCA). In addition, a GHS training workshop for Occupational Safety and Health will be organized in Malaysia during the first half of 2013, in collaboration with the ASEAN Occupational Safety and Health Network (OSHNET) Secretariat. These activities are part of the project "Strengthening National and Regional Capacities to Implement the GHS in ASEAN - Phase II", funded by the European Union.

60. On guidance, training and resource materials, the Sub-Committee noted that UNITAR has updated the guidance document "Understanding the GHS: A Companion Guide to the Purple Book" based on the fourth revised edition of the GHS and that the French, Russian and Spanish versions are expected to be available soon. It was also noted that UNITAR has adapted the training materials developed by UNITAR/ILO/Orange House Partnership to an e-learning course. A course was organized from 15 October to 30 November and involved 18 participants mainly from the private sector. The second round of this e-learning course is anticipated to be conducted during the first quarter of 2013.

61. Several experts expressed their appreciation for the work done by UNITAR.

VIII. Programme of work for the biennium 2013–2014 (agenda item 7)

A. Specific proposals

1. Nanomaterials

Document: ST/SG/AC.10/C.4/2012/30 (France)

Informal documents: INF.11 and INF.15 (Australia)

62. After some discussion, the Sub-Committee agreed to include an item in its programme of work to review the applicability of the GHS to manufactured nanomaterials taking into account the progress of international scientific work, if necessary (see annex IV).

63. The Sub-Committee agreed on the proposal from the expert from France who volunteered to lead an informal correspondence group on this issue. In order to avoid duplication of work, it was agreed that the group will take stock of the current work undertaken at the international level before proposing possible issues to be considered by the Sub-Committee. The expert from France said that he intended to submit a document to the next session of the Sub-Committee.

2. Revision of hazard statements for carcinogenicity and other classes

Informal document: INF.10 (Australia)

64. Although it was recognized that the wording of some of the hazard statements could probably be further improved, most delegations questioned the appropriateness of addressing this matter at this point of the implementation process. They also expressed concerns about the implications associated with the suggested changes and questioned their added value. In view of the opinions expressed, the Sub-Committee did not agree to include this item in its programme of work until more expertise is gained on the implementation and use of the hazard statements in question.

3. Evaluation of classification criteria and flammability categories for certain refrigerants

Informal documents: INF.13 (Belgium) and INF.29 (Secretariat)

65. The Sub-Committee agreed to include this issue in its programme of work and entrusted the TDG Sub-Committee as the focal point for physical hazards with the task (see annex IV).

4. Aspiration hazard: viscosity criterion for classification of mixtures

Informal document: INF.22 (IPPIC)

66. The Sub-Committee agreed to keep this issue in its programme of work (see annex IV).

5. Complex substances and substances of unknown or variable composition, complex reaction products and biological materials (UVCBs)

Informal document: INF.24 (IPIECA)

67. The Sub-Committee agreed to include this issue in its programme of work and entrusted the informal working group on practical classification issues with the task (see INF.34).

6. Alignment of Annex 9 (section 9.7) and Annex 10 of the GHS with Chapter 4.1

Informal document: INF.25 (ICMM)

68. The Sub-Committee agreed to keep this issue in its programme of work (see annex IV).

7. Aspiration hazard: classification of aerosol/mist products

Informal document: INF.28 (Sweden)

69. The Sub-Committee agreed to include this issue in its programme of work and entrusted the informal working group on practical classification issues with the task (see INF.34).

8. Practical classification issues

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

70. The Sub-Committee agreed to the proposed terms of reference for the work of the informal correspondence group on practical classification issues during the biennium 2013-2014 contained in INF.34 (see annex IV).

9. Dust explosion hazards

Informal document: INF.37 (United States of America)

71. The Sub-Committee agreed to the proposed terms of reference for the work of the group during the biennium 2013-2014 contained in INF.37 (see annex IV).

10. Criteria for water reactivity

Informal document: INF.29 (Secretariat)

72. The Sub-Committee agreed to keep this issue in its programme of work for the next biennium and entrusted the TDG Sub-Committee, as the focal point for physical hazards, with the task (see annex IV).

11. Development of a list of chemicals classified in accordance with the GHS

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

73. The Sub-Committee agreed to the proposed terms of reference for the work of the informal correspondence working group during the biennium 2013-2014 contained in INF.39 (see annex IV).

12. Corrosion to metals (pitting corrosion and suitability of test C.1 for solids)

74. The Sub-Committee agreed to keep this issue in its programme of work for the next biennium (see annex IV).

B. Consolidated programme of work for 2013-2014

Informal document: INF.40 (Secretariat)

75. On the basis of the proposals in section A above and those discussed under other agenda items or at previous sessions, the Sub-Committee adopted its programme of work for 2013-2014 on the basis of a draft prepared by the secretariat (see annex IV).

IX. Draft resolution 2013/... of the Economic and Social Council (agenda item 8)

Informal document: INF.18 (Secretariat)

76. The Sub-Committee adopted the part of the resolution dealing with its work during the biennium 2011-2012 on the basis of a draft prepared by the secretariat.

X. Election of officers for the biennium 2013–2014 (agenda item 9)

77. On a proposal by the experts from Canada (for the Chairperson) and Brazil (for the vice-chairpersons), the Sub-Committee elected Ms. M. Ruskin (United States of America) as Chairperson and re-elected Ms. E. Snyman (South Africa) and Mr. T. Gebel (Germany) as vice-chairpersons.

XI. Other business (agenda item 10)

78. The Sub-Committee was informed that Ms. K. Headrick would be retiring soon and wished her all the best in her retirement. Noting that she had successfully chaired the Sub-Committee since its first session in 2001, the Sub-Committee paid tribute to her long-standing contribution to the development and implementation of the GHS, to her involvement in all the activities related to the work of the Sub-Committee, and to her commitment to building consensus among all stakeholders, particularly during the first years following the creation of the Sub-Committee when a great amount of coordination between all actors involved was necessary.

XII. Adoption of the report (agenda item 11)

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

Annex I

Draft amendments to the fourth revised edition of the Globally Harmonized System of Classification and Labelling of Chemicals

For practical reasons, this annex has been published as an addendum, see ST/SG/AC.10/C.4/48/Add.1

Annex II

Corrections to the fourth revised edition of the Globally Harmonized System of Classification and Labelling of Chemicals

For practical reasons, this annex has been published as an addendum, see ST/SG/AC.10/C.4/48/Add.1.

Annex III

Guiding principles for the development of a global list of chemicals classified in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals

- (a) The process for developing and maintaining a global list must be clear, transparent and follow the principles of the GHS. Opportunities should be provided for stakeholders to provide input as well as mechanisms for expert review, conflict resolution and updating the list when new significant data or information become available;¹
- (b) All GHS hazard categories and classes must be included in the global list of classified chemicals;²
- (c) Only substances, as defined by the GHS, will be included in the global list of classified chemicals;
- (d) All substances must be accurately identifiable and described for each entry (e.g. including *Chemical Abstracts Service Registry Numbers* (CAS numbers), the UN numbers assigned under transport of dangerous goods regulations where assigned/applicable, and relevant impurities);
- (e) The data sets forming the basis for the chemical classification must be referenced with the classification. The source of the information must also be electronically available, and publicly accessible. The data should be derived using test methods that are scientifically sound and validated according to international procedures;
- (f) The global list of chemical classifications will be non-binding. As with the GHS itself, countries will have the option to make the list binding if they adopt it through their legislative and/or regulatory process. Furthermore, the development of a global list is compatible with the GHS principle of self-classification;

¹ Given the vast amount of substances on the global market, the global list will initially cover only a subset of prioritised substances.

² Development of the global list needs to involve priority setting and proceeding in a stepwise fashion. While the ultimate goal is to include all GHS classes/categories, an interim step may include a phased in approach. The pilot program being proposed for the next biennium will not require that substances be selected in order to have all hazard classes/categories covered.

Annex IV

Programme of work for the biennium 2013–2014

1. Classification criteria

- (a) Explosives and related matters (including classification of desensitized explosives)
Focal point: TDG Sub-Committee
For classification of desensitized explosives:
Lead country: Germany
Mandate/Terms of reference: ST/SG/AC.10/C.4/46 (paragraph 8) and paragraph 14 of the present report.
- (b) Revision of the test methods in Parts I and II of the Manual of Tests and Criteria
Focal point: TDG Sub-Committee
Mandate/Terms of reference: ST/SG/AC.10/C.4/46 (paragraph 13), and INF.10 (paragraph 5) submitted at the 23rd session of the Sub-Committee.
- (c) Corrosion to metals: Consider pitting corrosion and suitability of Test C.1 for solids
Focal point: TDG Sub-Committee
Lead country: France
Mandate/Terms of reference: INF.16 (16th session) and paragraph 74 of the present report.
- (d) Water activated toxicity
Work on Test method N.5 for the assessment of water activated toxicity, in relation to:
- (i) the accurate and precise measurement of gas evolution rates for substances which in contact with water emit flammable or toxic gases;
 - (ii) its possible application to substances which in contact with water emit corrosive gases;
 - (iii) the improvement of the reproducibility of test results; and
 - (iv) its suitability as a new method for the development of classification criteria, as appropriate;
- Focal point: TDG Sub-Committee
Lead country: Germany
Mandate/Terms of reference: ST/SG/AC.10/C.4/40 (Annex II) and paragraph 72 of the present report.

- (e) Evaluation of classification criteria and flammability categories for certain refrigerants
Focal point: TDG Sub-Committee
Mandate/Terms of reference: INF.13 (24th session) and paragraph 65 of the present report.
- (f) Classification and testing of oxidizing solids
Focal point: TDG Sub-Committee
Mandate/Terms of reference: paragraph 10 of the present report.
- (g) Practical classification issues
Focal point: Informal working group on practical classification issues
Lead country: United States of America
Mandate/Terms of reference: INF.34 and paragraph 70 of the present report.
- (h) Corrosivity criteria: Further alignment of corrosivity criteria in Class 8 of the Model Regulations with the GHS criteria
- (i) Verify the definition of “skin destruction” as used in the Model Regulations on the Transport of Dangerous Goods complemented with references to the OECD test guidelines. If the definition is not aligned with paragraph 3.2.2.1.1 in Chapter 3.2 of the GHS, propose appropriate improvements;
 - (ii) Identify and analyse the discrepancies between assignment to sub-categories 1A, 1B and 1C, based on *in vitro* and *in vivo* testing and alternative approaches (bridging principles, mixtures calculations, pH...);
 - (iii) Identify differences in assignment to categories in lists provided by different regulations and guidance documents for a few representative common substances. Analyse the underlying data and origin of these differences and use these results for the work under sub-paragraphs (i), (ii) and (iv);
 - (iv) Check the way OECD guidelines are referenced and their relevance;
 - (v) Report findings and make recommendations that meet the needs of all sectors with the aim of achieving consistent classification outcomes for skin corrosivity;
- Focal point: Joint (TDG-GHS) informal working group on corrosivity criteria
Coordinator: United Kingdom
Mandate/Terms of reference: INF.16 and paragraph 52 of the present report.
- (i) Dust explosion hazards
Lead country: United States of America
Mandate/Terms of reference: INF.37 and paragraph 71 of the present report.
- (j) Aspiration hazard: viscosity criterion for classification of mixtures
Lead organization: IPPIC
Mandate/Terms of reference: INF.22 and paragraph 65 of the present report.

- (k) Nanomaterials
Take into account the progress of international scientific work to review the applicability of the GHS to manufactured nanomaterials, if necessary.
Lead country: France
Mandate/Terms of reference: paragraph 62 of the present report.
- (l) Classification of polymerizing substances
Focal point: TDG Sub-Committee
Mandate/Terms of reference: INF.29 and paragraph 54 of the present report.

2. Hazard communication issues

- (a) Revision of section 9 of Annex 4 of the GHS
Lead country: Germany
Mandate/Terms of reference: INF.36 and paragraph 31 of the present report.
- (b) Labelling of small packagings
Development of guidance and/or examples on the application of the general principles for the labelling of small packagings.
Lead organization: CEFIC
Mandate/Terms of reference: INF.21 and paragraph 30 of the present report.
- (c) Improvement of Annexes 1-3 and further rationalization of precautionary statements
- (i) Work stream 1: to develop proposals to rationalize and improve the usability of hazard and precautionary statements. These may include proposals to eliminate redundancies among these statements, and proposals for further guidance and precedence rules for use of the statements;
- (ii) Work stream 2: to address any other issues relating to Annexes 1-3 and the use of hazard and precautionary statements that the Sub-Committee wishes to refer to the informal correspondence group;
- Lead country: United Kingdom
Mandate/Terms of reference: Document ST/SG/AC.10/C.4/2012/19 (paragraph 12) and paragraph 12 of the present report.

3. Implementation issues

- (a) Assessing the possible development of a list of chemicals classified in accordance with the GHS
Lead country: United States of America
Mandate/Terms of reference: INF.39 and paragraph 73 of the present report.
- (b) Facilitate the coordinated implementation of the GHS in countries and monitor the status of implementation of the GHS

- (c) Cooperate with other bodies or international organizations responsible for the administration of international agreements and conventions dealing with the management of chemicals so as to give effect to the GHS through such instruments

4. Guidance on the application of the GHS criteria

- (a) Development of examples illustrating application of criteria and any related hazard communication issues, as needed

Focal point: Informal correspondence group on practical classification issues

Lead country: United States of America

Terms of reference: INF.34 and paragraph 70 of the present report

- (b) Alignment of guidance in Annex 9 (section A9.7) and Annex 10 of the GHS with the criteria in Chapter 4.1

Lead organization: ICMM

Mandate/Terms of reference: INF.25 and paragraph 68 of the present report.

5. Capacity building

- (a) Review reports on training and capacity-building activities;
- (b) Provide assistance to United Nations programmes and specialized agencies involved in training and capacity-building activities, such as UNITAR, ILO, FAO and WHO/IPCS through the development of guidance materials, advice with respect to their training programmes and identification of available expertise and resources.
