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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-third session**

held in Geneva from 4 to 6 July 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-third session from 4 to 6 July 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, Qatar, Republic of Korea, Russian Federation, South Africa, Spain, 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, Romania, Slovakia, Switzerland and Thailand.
4. Representatives of the United Nations Institute for Training and Research (UNITAR) and of the following specialized agencies were present: International Maritime Organization (IMO).
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); International Association for Soaps, Detergents and Maintenance Products (AISE); International Dangerous Goods and Containers Association (IDGCA); International Council of Chemical Associations (ICCA); International Paint and Printing Ink Council (IPPIC); International Petroleum Industry Environmental Conservation Association (IPIECA); Responsible Packaging Management Association of Southern Africa (RPMASA); Sporting Arms and Ammunition Manufacturers' Institute (SAAMI) and World Federation of Building Service Contractors (WFBSC).

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

*Documents:* ST/SG/AC.10/C.4/45 (Secretariat)  
ST/SG/AC.10/C.4/45/Add.1 (Secretariat)

*Informal documents:* INF.1, INF.2 and INF.8 (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.34.

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

#### A. Physical hazards

##### 1. Classification of desensitized explosives

*Document:* ST/SG/AC.10/C.4/2012/1 (ICCA)

*Informal documents:* INF.12 (Germany) and INF.31, section 2 (Secretariat)

8. The Sub-Committee concurred with the Sub-Committee of Experts on the Transport of Dangerous Goods (TDG Sub-Committee) on its decision to endorse the conclusions of the Working Group on desensitized explosives as recommended by the Working Group on Explosives, as follows:

- (a) A new chapter on desensitized explosives is needed in the GHS;
- (b) The German classification system for storage groups constitutes a good basis for the development of a classification system for desensitized explosives in the GHS, as supported by ICCA;
- (c) In case a new test is proposed as part of the classification system for desensitized explosives, it should be included in a separate appendix of the Manual of Tests and Criteria, on the understanding that it would not be applicable for transport classification;
- (d) The properties of mixtures of desensitized explosives when the diluent has fallen below the specified level need not be included in the classification method since they would then be considered as explosives;
- (e) A number of experts are considering preparing a formal proposal to deal with the details of implementation within the GHS for the next biennium and requested that an item on desensitized explosives be included in the programme of work for 2013–2014.

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

*Document:* ST/SG/AC.10/C.4/2012/4 (Germany, United States of America, Canada)

*Informal document:* INF.31, section 1 (Secretariat)

9. The Sub-Committee considered the recommendations from the TDG Sub-Committee's Working Group on Explosives concerning the text of the note to be inserted in Chapter 2.1 of the GHS, as contained in informal document INF.31, section 1.

10. Several experts noted that the revised text extended the scope of the initial proposal in paragraph 6 of document ST/SG/AC.10/C.4/2012/4 to cover substances exempted from classification as explosives other than those showing a positive result in Tests Series 2 and a negative result in Tests Series 6. The expert from France indicated that the Working Group on Explosives felt that there was a need to communicate the hazards posed by substances for which the explosive properties may have been provisionally neutralized (e.g. because of the type of packaging used, their granulometric characteristics, or by addition of a phlegmatizer (e.g. desensitized explosives)). The reason is that these substances could

display such properties again under certain circumstances (e.g: when they are unpacked or when the phlegmatizer has evaporated, etc). This view was shared by a few experts.

11. Others considered that in the absence of clear criteria for addressing all the substances falling into this category, the note should start by addressing those for which clear classification criteria were available. It was also noted that classification and labelling of desensitized explosives would be addressed in the context of the development of a specific hazard class during the next biennium (see paragraph 8).

12. After some discussion, the Sub-Committee decided to adopt the note in paragraph 6 of document ST/SG/AC.10/C.4/2012/4 as amended (see annex I). It was acknowledged, however, that the adopted text did not cover all substances with explosive properties which are exempted from classification as explosives (such as desensitized explosives or substances with specific granulometric properties) for which further work would have to be done in the future.

### **3. Difficulties in carrying out some of the classification tests in the Manual of Tests and Criteria**

*Informal documents:* INF.10 (Chairman of the Working Group on Explosives), INF.31, section 1 (Secretariat)

13. The Sub-Committee concurred with the TDG Sub-Committee's decision to include the revision of the test methods in Parts I and II of the Manual of Tests and Criteria in its programme of work for the next biennium. The review would aim at better defining the specifications of the tests and the associated tolerances, as well as at removing any unnecessary or over-specifications, following the approach given in paragraph 5 of informal document INF.10.

### **4. Test and criteria for oxidizing solids**

*Informal documents:* INF.17 (Germany) and INF.31, section 1 (Secretariat)

14. The Sub-Committee noted the outcome of the discussions of the TDG Sub-Committee and concurred with the TDG Sub-Committee on the following:

- (a) The new test would improve the reproducibility of the results and would avoid the problems related to the toxicity of the reference substance currently used;
- (b) The new test should replace the current one as soon as possible. However, recognizing that testing laboratories should be given some time to gain experience with the test and provide feedback, a transitional period during which both the new and the current test may be used should be defined. Testing laboratories would be consulted to determine the most suitable length of the transitional period;
- (c) The list of examples provided in paragraph 34.4.x.y of the proposal should be reconsidered in light of:
  - (i) the results obtained from other laboratories and additional substances; and
  - (ii) the examples provided related to substances that give a negative result in the test only under specific conditions (e.g. particle size considered, manufacturing procedures used) or are special cases which cannot be considered as representative of oxidizing substances (e.g. ammonium nitrate).
- (d) The final proposal should also address the consequential amendments to other parts of the UN Model Regulations on the Transport of Dangerous Goods, the Manual of Test and Criteria and the GHS.

15. The expert from China welcomed the data provided orally by the observer from Chile to illustrate the impact of particle sizes on the test results and invited him to share this information with his delegation.

16. The expert from Germany said that she would forward the comments to the so-called Energetic and Oxidizing Substances (EOS) working group of the International Group of Experts on the Explosion Risks of Unstable Substances (IGUS) and that a revised proposal would be submitted as an official document to the TDG and GHS sub-committees for their December sessions.

## **5. Decision logics for self-reactive substances and organic peroxides**

*Document:* ST/SG/AC.10/C.4/2012/3 (ICCA)

*Informal document:* INF.31, section 4 (Secretariat)

17. The Sub-Committee adopted the proposal in paragraph 9 (b) of the document from ICCA (see annex I).

## **6. Dust explosion hazards**

*Informal documents:* INF.21 (United States of America) and INF.33 (United States of America)

18. The Sub-Committee took note of the recommendations to amend Annex 4 to the GHS made by the group as contained in paragraph 4 of informal document INF.33. One expert suggested that the wording in the new sentence under section A4.3.5.1 should be improved while another expert proposed checking the suitability of the term “explosive dust” and suggested considering its replacement by another term such as “potentially explosive atmosphere”. The Sub-Committee invited the informal group to consider the comments made and to revise the proposal accordingly with a view to submitting a formal document for the twenty-fourth session for adoption.

## **7. Classification and testing of water-reactive substances**

*Document:* ST/SG/AC.10/C.4/2012/2 (France)

*Informal documents:* INF.4 (France) and INF.31, section 8 (Secretariat)

19. The Sub-Committee noted the conclusions of the Working Group on Water-reactivity as contained in informal document INF.31, section 8.

20. The expert from France said that eight parameters had been identified so far as being critical to the testing methodology but noted that more tests were needed before reaching full understanding of their influence and whether additional parameters should be considered.

21. Following a presentation on the test methodology used (see informal document INF.76/Add.1 submitted to the forty-first session of the TDG Sub-Committee), the expert from China asked for clarifications about some of the parameters used (e.g. temperature, mass, materials used or water quality) and stressed the importance of addressing the problems caused by these substances to prevent accidents during their transport or handling. He mentioned that such accidents had caused casualties in his country in the past.

22. The expert from France invited the expert from China to provide information about the conditions in which these accidents had occurred since he considered that the data could be used to improve the testing methodology. The invitation to provide any data available and to participate in the Working Group on Water-reactivity was extended to all Sub-Committee experts.

**8. Work of the Sub-Committee of Experts on the Transport of Dangerous Goods**

*Informal document:* INF.31 (Secretariat)

23. The Chairman of the TDG Sub-Committee informed the GHS Sub-Committee about the work on:

- (a) Improvement of Test Series 8 and Test Series 6;
- (b) Amendments to the screening test for substances that may have explosive properties;
- (c) Improvement of the deflagration to detonation tests (DDT Tests) and criteria for flash composition;
- (d) Classification and transport of ammonium nitrate and miscellaneous proposals related to transport of explosives (listing, packing instructions, special provisions, etc); and
- (e) Classification of fireworks.

24. The Sub-Committee noted that the TDG Sub-Committee had also considered other proposals seeking further alignment of the criteria in the UN Model Regulations with those of the GHS.

**B. Health hazards****Editorial revision of Chapters 3.2 and 3.3**

*Informal document:* INF.22 (Germany)

25. The Sub-Committee noted that the informal working group expected to have the work finalised in time to submit a formal proposal for adoption at its twenty-fourth session.

**C. Annexes****Improvement of annexes 1, 2 and 3 of the GHS**

*Informal document:* INF.16 (United Kingdom)

26. The Sub-Committee noted that the informal working group intended to submit formal proposals to the twenty-fourth session addressing: further rationalization of physical hazard precautionary statements (workstream 2), further rationalization of the contents and the way the information is presented in annexes 1 and 2 of the GHS, and the inconsistent use of the “slash” (/) in the precautionary statements.

27. Noting that work on workstream 4 (further rationalization of precautionary statements to improve their usability) would not be finished during the current biennium, the Sub-Committee endorsed the proposal made by the informal working group to include this item in its programme of work for the next biennium.

**D. Miscellaneous proposals****1. Corrections to figure 2.1.3 in Chapter 2.1**

*Informal document:* INF.6 (Sweden)

28. The Sub-Committee adopted in principle and without modifications the proposed corrections. The secretariat was requested to include the corrections in a formal document to be submitted for adoption by the Sub-Committee at its twenty-fourth session.



## 2. Corrections to Chapter 2.3

*Informal documents:* INF.7 (Sweden) and INF.31, section 6 (Secretariat)

29. The Sub-Committee agreed in principle to the corrections proposed by Sweden and welcomed a formal proposal for its twenty-fourth session. However, following a comment by a member of the secretariat, the expert from Sweden was invited to consider whether the proposed corrections might lead to the interpretation that chapter 2.3 covers classification and labelling of all end-points for aerosols (i.e. including hazards other than those related to flammability or pressure); whether in such case, there is a contradiction with the classification criteria in 2.3.2 which refer only to flammability properties; and also whether non-flammable aerosols presenting other hazards are already covered by the second sentence of note 2 under 2.3.2.1.

## 3. Corrections to Chapter 4.1 and annexes 1 and 9

*Document:* ST/SG/AC.10/C.4/2012/5 (Sweden)

30. Acknowledging the concerns of one expert who considered that the amendments proposed could be misunderstood as implying a risk-based approach, and the additional modifications suggested by a few other experts, the expert from Sweden withdrew the proposal and said that he would submit a revised one for the December session.

## 4. Corrections to hazard and precautionary statements

*Document:* ST/SG/AC.10/C.4/2012/7 (United Kingdom)

31. The Sub-Committee adopted the proposed corrections without modifications (see annex II).

## 5. Corrections to the hazard statements for serious eye damage/eye irritation in Annex 3 of the French version of the GHS

*Document:* ST/SG/AC.10/C.4/2012/8 (Canada)

32. The Sub-Committee agreed that the term “des yeux” could be more easily understood than “oculaire” and therefore preferred that option. However, noting that the proposal did not address all the consequential amendments related to the proposed change, the expert from Canada withdrew the proposal and said that she would submit a revised one for the twenty-fourth session.

## 6. Corrections to hazard statements in Chapter 2.8 of the French version of the GHS

*Document:* ST/SG/AC.10/C.4/2012/9 (Canada)

33. The Sub-Committee adopted the proposed corrections without modifications (see annex II).

## 7. Reference numbers for GHS pictograms

*Informal document:* INF.23 (United Kingdom)

34. The Sub-Committee supported in principle the proposal to assign reference numbers to GHS pictograms. However, several experts pointed out that should a codification system be developed, it should be made clear that the codes are to be used for reference purposes only and should never appear either on the label or in section 2 of the Safety Data Sheet in lieu of the information required therein. Several experts also mentioned that additional guidance similar to that currently available on the use of hazard and precautionary statements reference numbers should be developed.

## **IV. Hazard communication issues (agenda item 3)**

### **A. Fire extinguishers**

*Informal document:* INF.3 (Argentina)

35. The Sub-Committee did not support the proposal on the grounds that there was no reason to specifically acknowledge fire extinguishers in a note to table 2.5.1 in Chapter 2.5 of the GHS.

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

*Informal document:* INF.9 (AISE)

36. The Sub-Committee noted that the informal working group intended to submit a formal proposal for the twenty-fourth session which would include quantitative data related to the issue under consideration, to help in the decision making process (e.g. number of product types and of end-user units involved, etc).

### **C. Labelling of small packagings**

*Informal document:* INF.15 (CEFIC)

37. The Sub-Committee welcomed the progress made in the development of examples for labelling of small packagings. The representative of CEFIC invited experts to provide comments in writing as soon as possible and informed the Sub-Committee that the informal working group would continue to work on the refinement of the examples with a view to submitting a formal proposal for adoption at the twenty-fourth session of the Sub-Committee. Some experts suggested that the option of publishing the examples as industry guidance on the UNECE website instead of including them in the GHS should be considered.

38. The Sub-Committee also took note of additional issues to be considered by the informal working group during the next biennium.

### **D. Revision of section 9 of the Safety Data Sheets**

*Informal document:* INF.19 (Germany) and INF. 32 (Germany)

39. The Sub-Committee noted that the informal working group had reached agreement on the table listing basic physical and chemical properties and on the revised introductory text to Section 9 (see informal document INF.19, Annex I). Recognizing the value of the revised text, some experts suggested that it would be desirable to have it adopted for the next revised edition of the GHS. Others thought that more time was needed to examine the proposal and seek feedback from other governmental agencies and stakeholders at national level.

40. The expert from Germany said that she would continue to update the Sub-Committee on the progress made by the informal working group.

## V. Implementation of the GHS (agenda item 4)

### A. Implementation issues

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

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

*Informal documents:* INF.24 (IPIECA), INF.28 (United States of America)  
INF.29 (OECD) and INF.34 (United States of America)

41. While there appeared to be strong support for the proposed guiding principles, several experts considered that some concepts could be further highlighted. These included the following:

- (a) GHS is based on self-classification;
- (b) not only data availability but data quality are important; and
- (c) while the ultimate goal should be to have a list addressing all hazard classes and categories, its development should follow a stepwise process and therefore involve priority setting (i.e., as an interim step, the pilot programme will not require that substances be selected in order to have all hazard classes and categories covered).

42. The representative of IMO stressed that to avoid duplication of work, existing lists such as the one developed and maintained by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), which is based on GHS principles and is peer reviewed, should be taken into consideration. Other experts mentioned that the Dangerous Goods List of the UN Model Regulations on the Transport of Dangerous Goods should also be considered.

43. The representative of OECD presented the work currently being done on the Global Portal to Information on Chemical Substances<sup>1</sup> (the eChemPortal), which once completed would allow users to obtain information on all GHS classifications available for a given chemical. It was noted that the work was expected to be completed in 2013. The expert from the Netherlands invited all countries and organizations which had already developed GHS-based chemical classification lists to link them to the eChemPortal.

44. Following the comments made during the discussion, the expert from the United States indicated that a revised version of the guiding principles as well as a document on the next steps and proposals of work for the next biennium (including transparency, development of criteria for source data and a mechanism for expert review) would be circulated to the informal correspondence group for agreement prior to submission to the twenty-fourth session of the Sub-Committee.

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<sup>1</sup> [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en) (accessed July 2012)

## **2. Work of the informal correspondence group on practical classification issues**

*Document:* ST/SG/AC.10/C.4/2012/6 (United States of America)

*Informal document:* INF.20 (United States of America)

45. The Sub-Committee adopted the proposals regarding the use of the terms “toxicity category”, “hazard category”, “cut-off value” and “concentration limit” as contained in subparagraphs 3 (a) and 3 (b) of document ST/SG/AC.10/C.4/2012/6 (see annex I).

46. Regarding the ongoing work of the informal correspondence group on the items listed under paragraph 4 of informal document INF.20, the Sub-Committee noted that the group had achieved consensus on most of the examples in annexes 2 and 3 of the document and proposed additional modifications for some of them.

47. Concerning the proposals in Annex 1 to informal document INF.20, the informal group agreed to reconsider the need for the addition of new definitions for the terms “no data available” and “not classified” as proposed in section 2. The informal group also considered the proposed amendments to Annex 4 of the GHS listed in section 1 of informal document INF.20 and agreed on the development of additional guidance to be included in Chapter 1.5 of the GHS.

48. The Sub-Committee noted that the informal group intended to revise its proposals as discussed and to submit formal documents for the twenty-fourth session containing recommendations for adoption of the new examples to be included in the UNITAR advanced training course, and amendments to Chapters 1.2 and 1.5 and Annex 4 of the GHS.

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

### **1. European Union**

*Informal document:* INF.5 (European Union)

49. The Sub-Committee noted that the Classification, Labelling and Packaging Regulation<sup>2</sup> (CLP Regulation) implementing the GHS in the European Union, required all manufacturers and importers of hazardous substances to notify the classification and labelling of substances hazardous by themselves or contained in mixtures, to the European Chemicals Agency (ECHA) within one month of its first placement on the market. It was also noted that ECHA is mandated to maintain a database (the so-called “Classification and Labelling Inventory”) holding all the notified information and making some of its elements publicly available.

50. The initial deadline for submitting notifications was 3 January 2011. ECHA had received more than 3 million notifications covering more than 100,000 substances, and published the first version of the Classification and Labelling Inventory on its website, where additional information about its contents and functionalities is available<sup>3</sup>.

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<sup>2</sup> Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

<sup>3</sup> <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database> (accessed July 2012)

## 2. United States of America

*Informal document:* INF.27 (United States of America)

51. The Sub-Committee noted that the Hazard Communication Standard (HCS) implementing the GHS for the workplace became effective on 25 May 2012 and would be fully implemented by 1 June 2016. The Occupational Safety and Health Administration has provided a 3-year transitional period for manufacturers and importers to classify and update the labels and Safety Data Sheets for substances and mixtures. Specific information about the transitional periods for employers, chemical manufacturers, importers and distributors is provided in the table in paragraph 5 of informal document INF.27.

## C. Cooperation with other bodies or international organizations

### 1. Work of the joint TDG-GHS Working Group on corrosivity criteria

*Informal documents:* INF.13 (United Kingdom), INF.14 (United Kingdom), INF.18 (United Kingdom), INF.11 (CEFIC) and INF.31 (Secretariat)

52. The Sub-Committee took note of the outcome of the second meeting of the joint TDG-GHS Working Group on corrosivity criteria as follows:

- (a) The main focus of the joint working group would now be on workstream (b): “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 (e.g. bridging principles, mixtures calculations, pH)”;
- (b) The proposal in informal document INF.11 on the revision of Chapter 2.8 in the UN Model Regulations on the Transport of Dangerous Goods was favourably received. Following the comments received, the representative of CEFIC would revise the proposal to include additional aspects of Chapter 3.2 of the GHS and to draw on the approach suggested in informal document INF.18 for the assignment of packing groups. In addition, CEFIC might wish to revisit the issue of expert judgement in this context.

53. The Sub-Committee requested the secretariat to explore, in consultation with the bureau of the TDG and the GHS sub-committees, the possibility of scheduling another meeting of the joint working group during their December 2012 sessions.

### 2. Asia-Pacific Economic Cooperation (APEC) Chemical Dialogue activities on exchange of data on chemical substances

*Informal document:* INF.25 (Russian Federation)

54. The Sub-Committee welcomed the work of the APEC Chemical Dialogue in promoting implementation of the GHS and encouraged strengthened cooperation on exchange of data for classification and labelling purposes.

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

55. There was no discussion under this agenda item.

## **VII. Capacity building (agenda item 6)**

*Informal document:* INF.30 (UNITAR)

56. The Sub-Committee took note of the information related to the various activities scheduled or already conducted under the UNITAR/ILO and the UNITAR/ILO/OECD capacity building programmes and partnerships, including:

- (a) GHS awareness raising activities, training sessions and/or workshops conducted in Barbados, Gambia, Zambia and the Republic of Congo;
- (b) Publication of the draft chemicals legislation implementing the GHS in Thailand for the four sectors involved and development of similar legislation in China, Indonesia, Malaysia and Philippines;
- (c) Projects to strengthen capacities for implementation of the Strategic Approach to International Chemicals Management (SAICM) and the GHS initiated in Chile and Republic of Congo and approved for Bolivia, Colombia, Guatemala, Mexico, Kyrgyzstan and Tajikistan;
- (d) Regional activities in Central and Eastern Europe (workshop in Moldova, July 2012), the Caribbean (sub-regional conference in Jamaica) and countries of the Association of Southeast Asian Nations (ASEAN) (conference in Kuala Lumpur and a regional campaign and a workshop in Malaysia).

57. On guidance, training and resource materials, the Sub-Committee noted that UNITAR was adapting the GHS advanced training materials into an e-learning course, which was expected to be ready in October-November 2012. The course announcement will be advertised shortly on UNITAR's website.

58. The Sub-Committee also took note of the GHS-related activities held during the Rio+20 Conference (i.e. two side events, a partnership forum and the launching of a publication commemorating the 10-year anniversary of the UNITAR/ILO/OECD Global Partnership for Capacity Building to implement the GHS).

59. The experts from the Russian Federation and Zambia acknowledged the work done by UNITAR worldwide over the last decade and expressed their gratitude for its continuous support on capacity building activities for GHS implementation in their respective countries.

## **VIII. Other business (agenda item 7)**

### **A. Condolences**

60. The expert from Germany informed the Sub-Committee that Mr. G. Oberreuter had passed away on Wednesday 4 July 2012. The Sub-Committee paid tribute to his outstanding work and contributions as an expert on physical hazards not only during the early stages of development of the GHS but also after its adoption, and his commitment to its effective implementation. The Chairman of the TDG Sub-Committee also expressed his sadness and condolences to the German delegation on behalf of the TDG Sub-Committee.

**B. Safety Data Sheet and Label Authoring Registry Program in the United States of America**

*Informal document:* INF.26 (United States of America)

61. The Sub-Committee noted the information about the Safety Data Sheet and Label Authoring Registry started in the United States of America by the American Industrial Hygiene Association (AIHA) and the Society for Chemical Hazard Communication (SCHC).

**IX. Adoption of the report (agenda item 8)**

62. The Sub-Committee adopted the report on its twenty-third 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 GHS

#### Chapter 1.3

1.3.3.2.1 Insert a reference to footnote “1” at the end of the first sentence as follows: “.....in the GHS<sup>1</sup>.” and add the following related footnote:

<sup>1</sup> *For the purposes of the GHS, the terms “cut-off value” and “concentration limit” are equivalent and are meant to be used interchangeably. Competent authorities may choose whether to use either term to define thresholds that trigger classification.”*

(Ref. Doc: ST/SG/AC.10/C.4/2012/6)

#### Chapter 2.1

2.1.3 Add a new note 2 under Table 2.1.2 to read as follows:

**“NOTE 2:** *Substances and mixtures, as supplied, with a positive result in Test Series 2 in Part I, Section 12, of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, which are exempted from classification as explosives (based on a negative result in Test Series 6 in Part I, Section 16 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria,) still have explosive properties. The user should be informed of these intrinsic explosive properties because they have to be considered for handling – especially if the substance or mixture is removed from its packaging or is repackaged – and for storage. For this reason, 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 in accordance with Table 1.5.2, and other sections of the Safety Data Sheet, as appropriate.”.*

Renumber the current note under the table as NOTE 1.

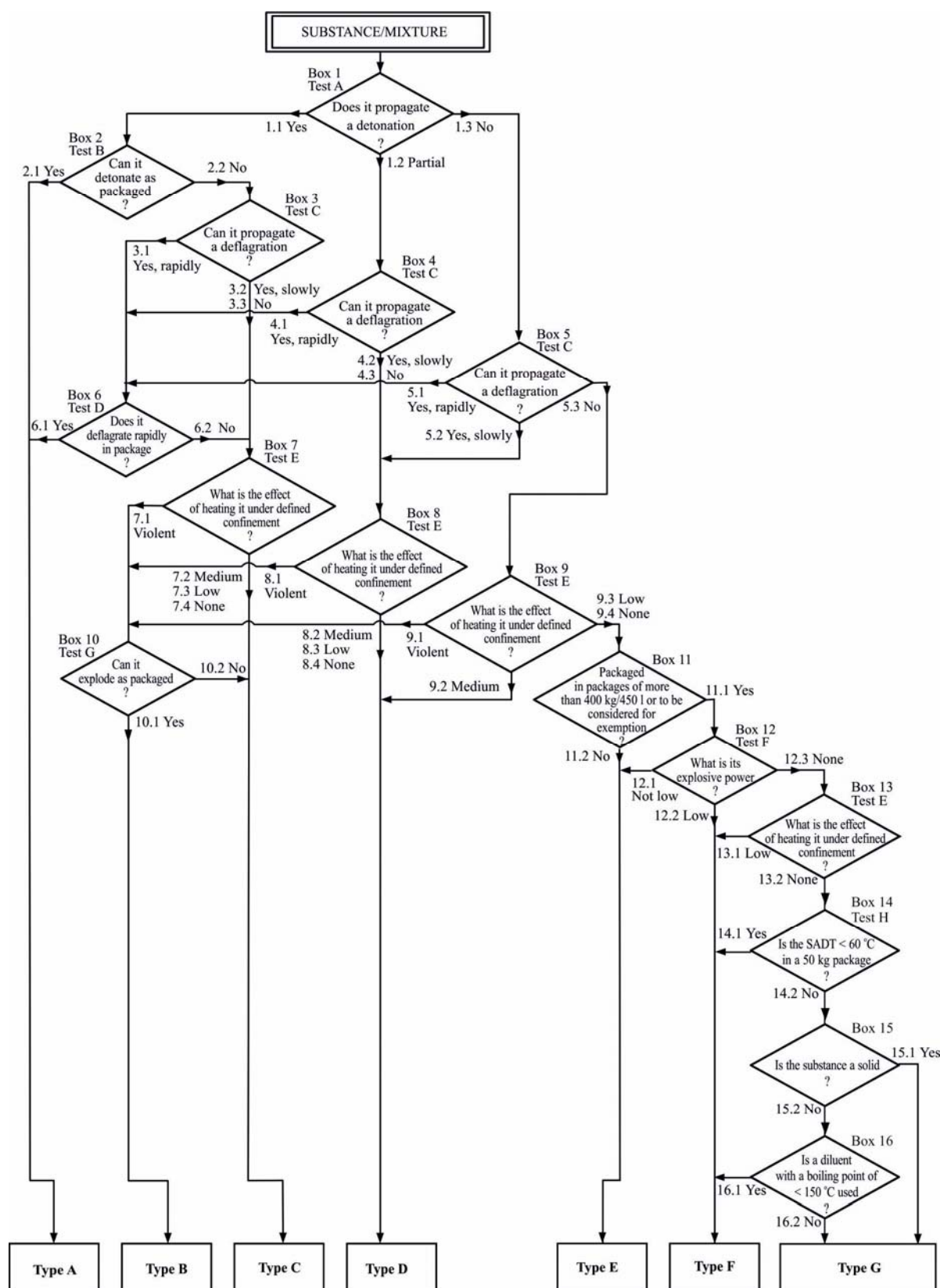
(Ref. Doc: ST/SG/AC.10/C.4/2012/4 as amended)

#### Chapters 2.8 and 2.15

In Chapter 2.8 (paragraph 2.8.4.1) replace decision logic 2.8, with the decision logic hereafter.

In Chapter 2.15 (paragraph 2.15.4.1) replace decision logic 2.15 with the decision logic hereafter, with the following modification: in the first text box for SUBSTANCE/MIXTURE read ORGANIC PEROXIDE.





(Ref. Doc: ST/SG/AC.10/C.4/2012/3)

### **Chapter 3.1**

In 3.1.3.6.1 (a) and 3.1.4.1, replace “acute toxicity categories” with “acute toxicity hazard categories”.

(Ref. Doc: ST/SG/AC.10/C.4/2012/6)

### **Chapters 3.1, 3.2, 3.3, 3.8, 3.9, 3.10 and 4.1**

In the paragraphs listed below, for “toxicity category” and “toxicity categories” read “hazard category” and “hazard categories”, respectively.

Chapter 3.1: 3.1.2.1; 3.1.2.4; 3.1.2.6.4; 3.1.3.5.5 (3 times);

Chapter 3.2: 3.2.3.2.5 (twice);

Chapter 3.3: 3.3.3.2.5 (twice);

Chapter 3.8: 3.8.3.3.5 (3 times);

Chapter 3.9: 3.9.3.3.5 (3 times);

Chapter 3.10: 3.10.3.2.5 (3 times);

Chapter 4.1: 4.1.3.4.5 (3 times); 4.1.5.1.1, at the end of decision logic 4.1.1 1 (page 234 of the English version of the GHS): sub-paragraph (a) in the text box preceding classification as Acute Category 1 (“Use all available information...”).

(Ref. Doc: ST/SG/AC.10/C.4/2012/6)

## Annex II

### Corrections to the fourth revised edition of the GHS

#### Chapter 2.8

In the French version of the GHS, paragraph 2.8.3, Table 2.8.1, hazard statements applicable to self-reactive substances and mixtures

*For en cas d'échauffement read sous l'effet de la chaleur*

(Ref. Doc: ST/SG/AC.10/C.4/2012/9, paragraph 7)

#### Annex 3

##### In Section 1, Table A3.1.2 (fourth column), entry for H315+H320

*for 2 (skin)/2A(eye) read 2 (skin)/2B(eye)*

(Ref. Doc: ST/SG/AC.10/C.4/2012/7, paragraph 6)

##### In Section 2:

- Paragraphs A3.2.3.4, A3.2.3.6 and Table A3.2.2 (entry for P241, second column) delete the slash (/) before “equipment”, i.e:

*For Use explosion-proof electrical/ventilating/lighting/.../equipment*

*Read Use explosion-proof electrical/ventilating/lighting/...equipment*

(Ref. Doc: ST/SG/AC.10/C.4/2012/7, paragraph 14)

- Table A3.2.3 (entries for P312, P301+P312 and P304+P312, second column) delete the slash (/) before “if”, i.e:

*For Call a POISON CENTER/doctor/.../if you feel unwell*

*Read Call a POISON CENTER/doctor/...if you feel unwell*

(Ref. Doc: ST/SG/AC.10/C.4/2012/7, paragraphs 12 and 13)

##### In Section 3, tables under A3.3.5:

- Table for flammable liquids (page 350 of the English version) and table for flammable solids (page 352 of the English version), in the entry for P241 under “Prevention” delete the slash (/) before “equipment”, i.e:

*For Use explosion-proof electrical/ventilating/lighting/.../equipment*

*Read Use explosion-proof electrical/ventilating/lighting/...equipment*

(Ref. Doc: ST/SG/AC.10/C.4/2012/7, paragraph 15)

- Tables for acute toxicity-oral, categories 4 and 5 (pages 371 and 372 of the English version); acute toxicity-dermal, categories 3, 4 and 5 (pages 374, 375 and 376 of the English version); acute toxicity-inhalation, categories 4 and 5 (pages 379 and 380 of the English version); and specific target organ toxicity-single exposure, category 3

(page 395 of the English version), in the entries for P312 under “Response”, delete the slash (/) before “if”, i.e:

*For* Call a POISON CENTER/doctor/.../if you feel unwell

*Read* Call a POISON CENTER/doctor/...if you feel unwell

(Ref. Doc: ST/SG/AC.10/C.4/2012/7, paragraph 15)

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