



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 thirty-ninth session

held in Geneva from 9 to 11 December 2020

Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Attendance.....	1-5	3
II. Organizational matters	6-9	3
III. Adoption of the agenda (agenda item 1)	10	4
IV. Recommendations made by the Sub-Committee at its thirty-seventh and thirty-eighth sessions (agenda item 2)	11	4
V. Classification criteria and related hazard communication (agenda item 3).....	12-36	4
A. Work of the Sub-Committee of Experts on the Transport of Dangerous Goods (TDG) on matters of interest to the GHS Sub-Committee.....	12-13	4
1. Manual of Tests and Criteria, review of Test Series H: determination of self-accelerating decomposition temperature.....	12	4
2. Tests for oxidizing liquids and oxidizing solids: improvement regarding consideration for particle size, friable or coated materials	13	4
B. Review of Chapter 2.1	14-23	5
C. Clarification of 2.9.3.4.3.4 of the Model Regulations and 4.1.3.3.4 of the GHS	24	6
D. Simultaneous classification in physical hazard classes and precedence of hazards.....	25	7
E. Use of non-animal testing methods for classification of health hazards.....	26	7
F. Practical classification issues	27	7
G. Aspiration hazard.....	28	7
H. Nanomaterials.....	29	7

I.	Other issues.....	30-36	7
1.	Definitions and use of acronyms and abbreviation in the GHS.....	30	7
2.	Review of the decision logics.....	31-33	8
3.	Workplace labelling: clarification of 1.4.10.5.5.1	34	8
4.	Clarification of the criteria for classification for germ cell mutagenicity in category 1B.....	35	8
5.	New proposals	36	9
VI.	Hazard communication (agenda item 4).....	37-43	9
A.	Practical labelling issues	37	9
B.	Improvement of annexes 1 to 3 and further rationalization of precautionary statements	38	9
C.	Review of Annex 4, sub-section A4.3.3.2.3	39	9
D.	Other issues.....	40-42	9
1.	Review and update of references to documents and test guidelines in annexes 9 and 10 of the GHS	40-41	9
2.	Alignment of Annex 9 (section 9.7) and Annex 10 (on metals and metal compounds) to the criteria in Chapter 4.1 and the generic environmental hazard guidance.....	42	10
E.	New proposals	43	10
VII.	Implementation of the GHS (agenda item 5)	44-50	10
A.	Possible development of a list of chemicals classified in accordance with the GHS	44-45	10
B.	Reports on the status of implementation.....	46-48	10
C.	Cooperation with other bodies or international organizations	49	11
D.	Miscellaneous	50	11
VIII.	Development of guidance on the application of GHS criteria (agenda item 6).....	51	11
IX.	Capacity building (agenda item 7)	52-53	11
X.	Programme of work for the biennium 2021-2022 (agenda item 8).....	54-55	11
XI.	Draft Resolution 2021/... of the Economic and Social Council (agenda item 9)....	56	12
XII.	Election of officers for the biennium 2021-2022 (agenda item 10)	57-58	12
XIII.	Other business (agenda item 11)	59-61	12
A.	Tributes	59-60	12
B.	Dates of the next session and document submission deadline.....	61	13
XIV.	Adoption of the report (agenda item 12).....	62	13

Annexes

I.	Draft amendments to the eighth revised edition of the GHS (ST/SG/AC.10/30/Rev.8)	14
II.	Programme of work of the Sub-Committee for 2021-2022.....	20

I. Attendance

1. The Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals held its thirty-ninth session from 9 to 11 December 2020, with Ms. Maureen Ruskin (United States of America) as Chairperson.
2. Experts from the following countries took part in the session: Argentina, Australia, Austria, Brazil, Canada, China, Finland, France, Germany, Italy, Japan, Netherlands, New Zealand, Norway, Poland, Republic of Korea, Serbia, South Africa, Spain, Sweden, United Kingdom, United States of America and Zambia.
3. Under rule 72 of the rules of procedure of the Economic and Social Council, observers from Chile, Myanmar, Peru, the Philippines and Switzerland also took part.
4. The following intergovernmental organizations were also represented: European Union and Organisation for Economic Cooperation and Development (OECD).
5. Representatives of the following non-governmental organizations took part in the discussion of items of concern to their organizations: Australian Explosives Industry and Safety Group Incorporated (AEISG); Compressed Gas Association (CGA); Croplife International; Dangerous Goods Advisory Council (DGAC); European Association of Automotive Suppliers (CLEPA); European Chemical Industry Council (Cefic); European Industrial Gases Association (EIGA); 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 Petroleum Industry Environmental Conservation Association (IPIECA); Institute of Makers of Explosives (IME); Responsible Packaging Management Association of Southern Africa (RPMASA); Sporting Arms and Ammunition Manufacturers' Institute (SAAMI) and World Coatings Council (formerly IPPIC).

II. Organizational matters

Informal document: INF.17 (secretariat)

6. Due to the outbreak and evolution of the coronavirus (COVID-19) pandemic during the first half of 2020, the thirty-ninth session of the Sub-Committee, initially scheduled to take place from 8 to 10 July 2020 was postponed until December. To help the Sub-Committee progress with the proposals that had already been submitted for the July session, the secretariat set up an online platform for exchange of comments in writing and organised informal virtual meetings for those proposals for which additional discussion was needed to clarify the feedback received in writing. As a result of these exchanges, several proposals were modified to take account of the comments received and were submitted as revisions or addenda to the original documents, for consideration at the December session.
7. After the deadline for submission of official documents, the secretariat was informed that due to a combination of COVID-19 response measures, financial constraints triggered by the United Nations liquidity crisis, ongoing renovation work at the Palais des Nations under the strategic heritage plan and technical constraints related to the amount of meeting rooms available for hybrid meetings, the share of meetings with interpretation allocated to meetings serviced by the Economic Commission for Europe had been significantly reduced for the last quarter of 2020. With this in mind and taking into account the quarantine and travel restrictions in force worldwide, the secretariat consulted with Conference Services on possible available options to adapt the format of the thirty-ninth session.
8. A letter from the Chairperson was sent on 12 October 2020 to all participants in the work of the Sub-Committee during the period 2019-2020 and their Permanent Missions of Member to the United Nations Office at Geneva, with a proposal for the working arrangements for the thirty-ninth session and a request for consideration through silence procedure. In the absence of objections received within the established deadline the proposed working arrangements were deemed accepted.

9. Accordingly, the secretariat set up again the online platform to exchange comments in writing on all proposals submitted for consideration at the thirty-ninth session in December and made the necessary arrangements to organise it in a format allowing remote and on-site participation, with a combination of informal and official meetings, as indicated in informal document INF.17.

III. Adoption of the agenda (agenda item 1)

Documents: ST/SG/AC.10/C.4/77/Rev.1 and
ST/SG/AC.10/C.4/77/Rev.1/Add.1 (secretariat)

Informal documents: INF.1, INF.2 and INF.35 (secretariat)

10. The Sub-Committee adopted the provisional agenda prepared by the secretariat after amending it to take account of informal documents INF.1 to INF.37. Informal document INF.11 containing the timetable for the informal discussions held in July in preparation for the thirty-ninth session was no longer relevant and was not considered during the session.

IV. Recommendations made by the Sub-Committee at its thirty-seventh and thirty-eighth sessions (agenda item 2)

Document: ST/SG/AC.10/C.4/2020/15 (secretariat)

11. The Sub-Committee confirmed the decisions taken at its thirty-seventh and thirty-eighth sessions in document ST/SG/AC.10/C.4/2020/15, with a correction to the matrix to the precautionary statements in Annex 3 and the note under table A1.5 in Annex 1 (see annex I).

V. Classification criteria and related hazard communication (agenda item 3)

A. Work of the Sub-Committee of Experts on the Transport of Dangerous Goods (TDG) on matters of interest to the GHS Sub-Committee

1. Manual of Tests and Criteria, review of Test Series H: determination of self-accelerating decomposition temperature

Documents: ST/SG/AC.10/C.4/2020/4 and
ST/SG/AC.10/C.4/2020/4/Add.1 (Chairman of the Working Group on Explosives)

Informal documents: INF.3 (Chairman of the Working Group on Explosives)
INF.36 (secretariat), paragraph 5

12. The Sub-Committee was informed that the TDG Sub-Committee endorsed the recommendation of its Working Group on Explosives to amend Test Series H in section 28 of the Manual of Tests and Criteria as proposed in documents ST/SG/AC.10/C.4/2020/4 and ST/SG/AC.10/C.4/2020/4/Add.1 and concurred with this decision.¹

2. Tests for oxidizing liquids and oxidizing solids: improvement regarding consideration for particle size, friable or coated materials

Document: ST/SG/AC.10/C.4/2020/9 (France)

Informal document: INF.36 (secretariat), paragraph 6

¹ Refer to the report of the TDG Sub-Committee on its fifty-seventh session (document ST/SG/AC.10/C.3/114).

13. The Sub-Committee noted the outcome of the discussions on this topic by the TDG Sub-Committee and concurred with its recommendation to insert a note in section 34 of the Manual and Tests and Criteria.²

B. Review of Chapter 2.1

Documents: ST/SG/AC.10/C.4/2020/5 and ST/SG/AC.10/C.4/2020/5/Add.1 (Sweden)
ST/SG/AC.10/C.4/2020/8 and ST/SG/AC.10/C.4/2020/8/Add.1 (Sweden)
ST/SG/AC.10/C.4/2020/16 (Sweden)
ST/SG/AC.10/C.4/2020/18 (Sweden)

Informal documents: INF.14 (Sweden)
INF.16 (Sweden)
INF.19 (Sweden)
INF.22 (Germany)
INF.25 (Sweden)
INF.29 (Sweden)
INF.30 (Sweden)
INF.36 (secretariat), paragraph 7

Background documents: ST/SG/AC.10/C.4/2020/7 (Sweden)
Informal documents INF.10 (United States of America, IME, SAAMI)
and INF.13 (Sweden)

14. The Sub-Committee was informed that the TDG Sub-Committee supported and endorsed the recommendations of its Working Group on Explosives on the proposed review of Chapter 2.1 of the GHS.

15. There was general support within the Sub-Committee for the proposed review of Chapter 2.1. It was recalled that the current classification criteria for explosives had been taken from the transport regulations, where explosives were expected to be handled in their transport configuration. Most of the experts who expressed an opinion considered that the new classification scheme will represent a step forward towards increased safety since it better addressed the needs of those sectors or stages in the life cycle where explosives were not in a transport configuration (e.g. manufacturing, processing, supply and use) without changing the classification criteria for transport.

16. While expressing support in principle for the review of Chapter 2.1, the expert from China expressed some concerns about the impact the new classification scheme could have for some types of explosives and in particular for fireworks classified in accordance with the default classification table criteria in 2.1.3.5 of the Model Regulations. She also raised concerns about the difficulties in implementing the new GHS classification scheme at the national level and considered that guidance could be developed to support its implementation.

17. In response to the concerns expressed by the expert from China on how the new classification scheme addressed explosives classified by analogy or in accordance with the default classification criteria in the Model Regulations, it was pointed out that this case was covered in the new 2.1.1.3.1, where it is stated that “Test data is not required when classification using expert judgement is possible based on available information from previous testing and characterization. Where appropriate, analogy to tested explosives may be used, taking into consideration whether changes to the configuration may affect the hazard posed compared to the tested configuration”.

18. As regards development of guidance, it was pointed out that the text under 2.1.4.3 could be helpful to understand how the new classification scheme should be applied. It was recognized, however, that some additional guidance could be developed and the expert from

² Refer to the report of the TDG Sub-Committee on its fifty-seventh session (document ST/SG/AC.10/C.3/114).

the United States of America agreed to work with other interested parties on this topic during the next biennium.

19. On the text for non-Class 1 explosives in section 2.1.1.2.3 and in particular as regards the paragraphs relating to explosives articles assigned to Class 9 in transport, some experts considered that it may need further consideration. However, other experts supported adopting the text on the understanding that work on its refinement could continue, if necessary, during the next biennium.

20. After an exchange of views, the Sub-Committee adopted:

- (a) the amendments to Chapter 2.1 in documents ST/SG/AC.10/C.4/2020/5 and ST/SG/AC.10/C.4/2020/5/Add.1 as amended by informal document INF.29 (paragraphs 7 and 8) and as consolidated in informal document INF.30 (see annex I).
- (b) the decision logics in document ST/SG/AC.10/C.4/2020/18 as amended by informal document INF.22 (paragraph 5) and INF.25 (with the amendments made by the Working Group on Explosives and endorsed by the TDG Sub-Committee), as consolidated in informal document INF.30 (see annex I).
- (c) the amendments to Annex 3, section 2 of the GHS in documents ST/SG/AC.10/C.4/2020/8 and ST/SG/AC.10/C.4/2020/8/Add.1, with an additional condition for use for precautionary statement P236 to make it applicable to only to explosives in Class 1 in transport (see annex I).

21. The Sub-Committee also adopted the matrices for explosives in informal document INF.16, as amended with the additional condition for use for precautionary statement P236 (see annex I).

22. Following the adoption of the new Chapter 2.1 for the GHS, the Sub-Committee confirmed that the Manual of Tests and Criteria should be amended accordingly as proposed in document ST/SG/AC.10/C.4/2020/16 with the amendments to box 19 in figures 10.2, 10.6 (b) and 10.7 (b) and the reference to paragraph 2.1.1.2.1 in section 10.4.1.1, recommended by the Working Group on Explosives and endorsed by the TDG Sub-Committee³.

23. The Sub-Committee expressed its appreciation to the expert from Sweden who had been leading the work on this topic for the last six years, both in the Sub-Committee (as the leader of the informal correspondence group) and within the Working Group on Explosives of the TDG Sub-Committee. Thanks were also extended to the Chair of the Explosives Working Group (Mr. Ed de Jong) and to all those who have been involved in or contributed to the work on this topic. It was pointed out that completion of the work to the satisfaction of all stakeholders involved had only been made possible thanks to the excellent collaboration between both sub-committees under the leadership and coordination of the expert from Sweden.

C. Clarification of 2.9.3.4.3.4 of the Model Regulations and 4.1.3.3.4 of the GHS

Documents: ST/SG/AC.10/C.4/2020/10 (China)
ST/SG/AC.10/C.4/2020/10/Add.1 (China)

Informal document: INF.36 (secretariat), paragraph 8

24. The Sub-Committee was informed that the TDG Sub-Committee had adopted the amendment to paragraph 2.9.3.4.3.4 of the Model Regulations in accordance with option 2 in paragraph 6 of document ST/SG/AC.10/C.4/2020/10. Acknowledging that the text in paragraph 4.1.3.3.4 of the GHS was not aligned with the criteria in table 4.1.1 (b) (i), the

³ Refer to the report of the TDG Sub-Committee on its fifty-seventh session (document ST/SG/AC.10/C.3/114).

Sub-Committee agreed to amend it accordingly as proposed in paragraph 7 of ST/SG/AC.10/C.4/2020/10 (see annex I).

D. Simultaneous classification in physical hazard classes and precedence of hazards

25. The expert from Germany informed the Sub-Committee that work on this topic would continue during the next biennium and invited all interested experts to contact her (Ms. Cordula Wilrich). The Sub-Committee agreed to keep this item on its programme of work for 2021-2022 (see annex II).

E. Use of non-animal testing methods for classification of health hazards

Informal documents: INF.12 and INF.12/Rev.1 (United Kingdom, Netherlands)
INF.26 (United Kingdom, Netherlands)

26. The Sub-Committee took note of the progress reports in informal documents INF.12 and INF.12/Rev.1 and agreed with the revised terms of reference for the work of the informal working group on non-animal testing methods for 2021-2022 in informal document INF.26 (see annex II).

F. Practical classification issues

Document: ST/SG/AC.10/C.4/2020/14 (United States of America)

Informal document: INF.32 (United States of America)

27. The Sub-Committee adopted the examples in document ST/SG/AC.10/C.4/2020/14, with the corrections in informal document INF.32 (see annex I) and invited the secretariat to add them to the list of examples on the application to the GHS criteria already available at the GHS guidance webpage.⁴

G. Aspiration hazard

28. The representative of the World Coatings Council (formerly IPPIC) informed the Sub-Committee that information and data collection was still ongoing and suggested that the item be removed from the programme of work for the time being. She indicated that the Sub-Committee will be kept informed on any progress made on this topic.

H. Nanomaterials

29. This subject was addressed under agenda item 8 (see paragraph 54 (c)).

I. Other issues

1. Definitions and use of acronyms and abbreviation in the GHS

Documents: ST/SG/AC.10/C.4/2020/2 (secretariat)
ST/SG/AC.10/C.4/2020/11 and
ST/SG/AC.10/C.4/2020/11/Add.1 (Germany)

Informal document: INF.18 (Canada)

⁴ <https://unece.org/transportdangerous-goods/ghs-guidance>

30. The Sub-Committee adopted the proposals in paragraphs 5, 6, 8, 9 and 10 in document ST/SG/AC.10/C.4/2020/2 as well as the proposal in paragraph 7 in documents ST/SG/AC.10/C.4/2020/11 and ST/SG/AC.10/C.4/2020/11/Add.1 with a modification to the proposed text of the introductory note to Chapter 1.2 as proposed in informal document INF.18 (see annex I).

2. Review of the decision logics

Documents: ST/SG/AC.10/C.4/2020/3 (secretariat)
ST/SG/AC.10/C.4/2020/3/Add.1 (secretariat)

Background documents: INF.5 (secretariat), INF.6 (Germany) and INF.8 (secretariat)

31. The Sub-Committee adopted the proposal in paragraph 3 in document ST/SG/AC.10/C.4/2020/3, with the additional amendments and corrections in paragraphs 3, 5 and 6 in ST/SG/AC.10/C.4/2020/3/Add.1, and the correction to the French version of decision logic 2.3.1 (c) in informal document INF.5 (see annex I).

32. On the proposed consequential amendments related to the proposal in paragraph 5 in ST/SG/AC.10/C.4/2020/3/Add.1, the Sub-Committee considered that they deserved further reflection and decided to address them during the next biennium.

33. The Sub-Committee welcomed the information by the expert from Germany on her intention to work during the next biennium on the general principles for the design, presentation and structure of the decision logics outlined in informal document INF.6, for their further improvement. .

3. Workplace labelling: clarification of 1.4.10.5.5.1

Documents: ST/SG/AC.10/C.4/2020/6 and ST/SG/AC.10/C.4/2020/6/Add.1 (secretariat)

34. Following a request for clarification by the expert from the Netherlands, the Sub-Committee confirmed that in the context of paragraph 1.4.10.5.5.1, “decantation” meant transfer of a chemical from its initial container to a provisional container and not separation of components of a mixture. It was pointed out that the main purpose of the provisions in this paragraph was to ensure that workers could easily obtain the hazard information about the chemical once it was placed in a non-labelled temporary container. On these grounds, the Sub-Committee adopted option 3 (b) as well as the proposal in paragraph 6 in document ST/SG/AC.10/C.4/2020/6/Add.1 (see annex I), as it was understood that the product identifier (as defined in section A4.3.1 of Annex 4 of the GHS) would allow unequivocal identification of the chemical, while at the same time allowing competent authorities to give suppliers discretion to use the alternative approach given in paragraph 1.4.10.5.2 (d) (iii) of the GHS.

4. Clarification of the criteria for classification for germ cell mutagenicity in category 1B

Documents: ST/SG/AC.10/C.4/2020/13 and
ST/SG/AC.10/C.4/2020/13/Add.1 (European Union)

Informal document: INF.37 (European Union)

Background document: INF.7 (Germany)

35. The Sub-Committee agreed in principle to the proposal to address this issue within an informal working group, as described in informal document INF.37, on condition that OECD will be engaged in the work. The Sub-Committee was informed that the first task of the informal working group will be to discuss and agree on the terms of reference for its work on the basis of the draft in informal document INF.37 and taking into account the comments made by the sub-Committee, such as the discussion of any work to capture non-animal test methods with the non-animal testing informal working group. The informal working group will forward the agreed terms of reference and a detailed work programme to the Sub-

Committee for its consideration at a future session. It was noted that the work of the informal working group would be organized by the Joint Research Center (JRC) of the European Commission.

5. New proposals

36. As no document had been submitted under this agenda item, no discussion took place on this subject.

VI. Hazard communication (agenda item 4)

A. Practical labelling issues

Informal document: INF.28 (Cefic)

37. The Sub-Committee agreed that work on practical labelling issues should continue during 2021-2022 (see annex II) in accordance with the terms of reference and work programme in paragraphs 5 and 6 of informal document INF.28 and noted that Cefic would continue to lead this work.

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

Documents: ST/SG/AC.10/C.4/2020/12 (United Kingdom)

Informal documents: INF.4 (United Kingdom)
INF.20 (United Kingdom)

38. The Sub-Committee took note of the status of the work of the informal working group on the improvement of annexes 1 to 3 of the GHS in informal document INF.20 and adopted the amendments to Annex 3 in paragraphs 6 to 9 of document ST/SG/AC.10/C.4/2020/12. (see annex I).

C. Review of Annex 4, sub-section A4.3.3.2.3

39. The representative of Cefic informed the Sub-Committee that no work on this topic was expected to be carried on during the next biennium. Consequently, the Sub-Committee decided to delete this item from its programme of work for 2021-2022.

D. Other issues

1. Review and update of references to documents and test guidelines in annexes 9 and 10 of the GHS

Document: ST/SG/AC.10/C.4/2020/1 (secretariat)

40. The Sub-Committee adopted the amendments proposed in accordance with option 2 in document ST/SG/AC.10/C.4/2020/1 (see annex I). It considered that the proposed approach was consistent with the views expressed at its twenty-eighth session (see ST/SG/AC.10/C.4/56, paragraph 41) as regards the importance to date test methods and would avoid cumbersome repetition of footnotes in annexes 9 and 10. It was also noted that providing all references at the same place would facilitate future updates. Delegations were invited to consider ways to ensure that the references were regularly revised and updated.

41. On the question of the applicability of old versions with respect to new versions of a standard or test guideline, the Chairperson, speaking from her experience as regulator in her country, indicated that when a standard or test guideline was promulgated by reference in a

regulatory text, only the specific version referred to therein became mandatory. However, a more recent version was permitted as long as it was equivalent. It was recognized that other countries may have different requirements.

2. Alignment of Annex 9 (section 9.7) and Annex 10 (on metals and metal compounds) to the criteria in Chapter 4.1 and the generic environmental hazard guidance

Informal documents: INF.9 and INF.9/Rev.1 (ICMM)

42. The Sub-Committee took note of the information provided and agreed to keep this item on its programme of work for 2021-2022 (see annex II).

E. New proposals

43. As no document had been submitted, no discussion took place under this agenda item.

VII. Implementation of the GHS (agenda item 5)

A. Possible development of a list of chemicals classified in accordance with the GHS

Document: ST/SG/AC.10/C.4/2020/17 (Canada, United States of America)

44. The Sub-Committee took note of the status of the work of the informal correspondence group on the development of a global list of chemicals classified in accordance with the GHS in paragraphs 1 to 7 in document ST/SG/AC.10/C.4/2020/17 and agreed that work should continue during 2021-2022 in accordance with the workstreams in the annex to that document (see annex II).

45. The expert from Sweden informed the Sub-Committee that the study referred to in paragraphs 5 to 7 of the document was in the final drafting stage and would be made available to the Sub-Committee at its fortieth session.

B. Reports on the status of implementation

Informal documents: INF.33, INF.33/Add.1 and INF.33/Add.2 (secretariat)

46. The Sub-Committee expressed its appreciation for the work of the secretariat in updating the information on the status of implementation of the GHS worldwide. It was noted that the “number of countries having implemented GHS” had been identified by IOMC organisations as one of the indicators to track progress towards achievement of the sound management of chemicals and wastes.

47. Considering the need for a harmonised approach for data collection, the Sub-Committee welcomed the proposal by the secretariat to develop and make available on the website, for easy access, a form requesting information on the items listed in paragraph 18 of informal document INF.33. The secretariat would compile the information received, update it on the website and report to the Sub-Committee on the updates as necessary. In the meantime, participants in the work of the Sub-Committee were invited to revise the information provided in informal document INF.33/Add.2 and send their feedback to the secretariat before the end of January 2021. The updated information will be made available on the UNECE website⁵. It was pointed out that information on the GHS status of implementation in countries that did not participate in the work of the Sub-Committee may be available in reports from regional organisations (e.g. Asia-Pacific Economic Cooperation (APEC)).

⁵ http://www.unece.org/trans/danger/publi/ghs/implementation_e.html

48. The Sub-Committee was informed that the TDG Sub-Committee had decided to introduce a standing item on its agenda on implementation of the Model Regulations, as a starting point to consider how to gather and compile information. It was noted that the information gathered by the secretariat on the status of implementation of the GHS also contained details about the status of implementation of the Model Regulations and other international instruments addressing modal transport.

C. Cooperation with other bodies or international organizations

49. As no document had been submitted, no discussion took place under this agenda item.

D. Miscellaneous

50. As no document had been submitted, no discussion took place under this agenda item.

VIII. Development of guidance on the application of GHS criteria (agenda item 6)

51. The Sub-Committee considered examples providing guidance on how to interpret some of the criteria in chapters 3.8 and 3.9 under agenda item 3 (f) (see paragraph 27).

IX. Capacity building (agenda item 7)

Informal document: INF.34 (RPMASA)

52. The Sub-Committee took note of the information provided in informal document INF.34.

53. The expert from South Africa informed the Sub-Committee that legislation addressing labelling in the workplace based on the seventh revised edition of the GHS, allowing for a transitional period of eighteen months was expected to be released soon and that training of labour inspectors had started in preparation for its implementation.

X. Programme of work for the biennium 2021-2022 (agenda item 8)

Informal documents: INF.15 (Japan)
 INF.21 (United Kingdom)
 INF.23 (Germany)
 INF.27 (Netherlands, United Kingdom)
 INF.31 (United States of America)

54. The Sub-Committee agreed to all the proposals discussed under this agenda item, with the following additional comments and observations:

- (a) The Sub-Committee welcomed the offer from Japan to lead the work to consider the applicability of local lymph node assays (LLNA) tests for skin sensitization sub-categorization. Noting that this issue had been considered by the OECD Expert Group on skin sensitization, as a first step, the Sub-Committee invited the expert from Japan to report to the Sub-Committee at its fortieth session on the discussions on this topic and their outcome at OECD level. It was also noted that the work led by Japan should be done in parallel and in coordination with the on-going work on non-animal test methods led by the United Kingdom and the Netherlands.

- (b) The Sub-Committee noted that the practical classification issues informal group had agreed to address the work on the subject proposed by Germany in informal document INF.23 (option 2) and had included it on its proposed programme of work for 2021-2022 in informal document INF.31.
- (c) Following an intervention from the expert from France, the Sub-Committee decided to keep the item on nanomaterials on its programme of work for 2021-2022.

55. Based on the proposals discussed and approved under this and other agenda items during this and previous sessions, the Sub-Committee agreed to its programme of work for 2021-2022 (see annex II).

XI. Draft Resolution 2021/... of the Economic and Social Council (agenda item 9)

Informal document: INF.24 (secretariat)

56. The Sub-Committee adopted part B of the proposed draft resolution to be submitted to the Economic and Social Council for consideration at its 2021 session.

XII. Election of officers for the biennium 2021-2022 (agenda item 10)

57. It was recalled that according to rule 68 of the rules of procedure “all elections shall be held by secret ballot, unless, in the absence of any objections, the [Sub-Committee] decides to proceed without taking a ballot on an agreed candidate or slate”. It was pointed out that, given that it was not technically possible to hold a secret ballot during the online official session, the Sub-Committee would only be able to elect its bureau for 2021-2022 by acclamation, on the basis of an agreed candidate or slate, and provided that no request for a secret ballot had been received. In case secret balloting was requested, the elections would have to be postponed until the earliest possible time to hold them.

58. No request for a secret ballot was made. The Sub-Committee expressed its appreciation for the chair’s leadership and coordination work during 2019-2020 considering in particular the exceptional challenges faced by the Sub-Committee as a result of the impact of the pandemic on the organisation of the sessions. On a proposal by Germany and the United States of America, both supported by other delegations, the Sub-Committee re-elected Ms. Maureen Ruskin (United States of America) as chairperson and elected Ms. Nina John (Austria) as vice-chairperson for the period 2021-2022. The elections took place by acclamation.

XIII. Other business (agenda item 11)

A. Tributes

59. The Sub-Committee was informed that Ms. Sabine Darschnik, who participated in its work as Head of the German delegation since July 2014 and Mr. Lennart Dock, who participated in the sessions since December 2003 and as a Head of Swedish delegation since July 2008, would be retiring soon and would no longer attend the sessions. The Sub-Committee was also informed that Mr. Paul Taylor, who attended the sessions as Head of the Australian delegation since July 2017 and served as Vice-Chair of the Sub-Committee since July 2019 had accepted a new role with another government agency and will no longer participate in the work of the Sub-Committee.

60. The Sub-Committee expressed its gratitude to all of them for their contributions to its work and to the implementation of the GHS and wished them all the best in their future endeavours.

B. Dates of the next session and document submission deadline

61. The Sub-Committee was informed that its fortieth session would be held from 5 to 7 (morning) July 2021 and that the deadline for submission of official documents was 9 April 2021.

XIV. Adoption of the report (agenda item 12)

62. In accordance with the established practice, the Sub-Committee adopted the report on its thirty-ninth session and its annexes based on a draft prepared by the secretariat.

Annex I

[Original: English and French]

Draft amendments to the eighth revised edition of the GHS (ST/SG/AC.10/30/Rev.8)

Document ST/SG/AC.10/C.4/2020/15, adopted with the following modifications:

Under “Annex 3, Section 3, matrix of precautionary statements”:

In the first line, delete “and desensitized explosives (categories 1, 2, 3 and 4)”.

Add the following new amendment:

“Desensitized explosives (categories 1, 2, 3 and 4), under “Prevention”, wording of precautionary statement P230

Replace with:

“Keep diluted with...

...Manufacturer/supplier or competent authority to specify appropriate material.”

Under the amended Annex I, Table A1.5, in table note a, replace “Model Regulations” by “UN Model Regulations”.

Documents ST/SG/AC.10/C.4/2020/5 and ST/SG/AC.10/C.4/2020/5/Add.1, adopted with the following amendments:

2.1.1.3.1 Insert the following new third sentence: “Test data is not required when classification using expert judgement is possible based on available information from previous testing and characterization.”.

The proposed new third sentence in document ST/SG/AC.10/C.4/2020/5/Add.1 becomes the new fourth sentence of 2.1.1.3.1, with the following additional amendment: Delete “, and being narrowly limited according to the quantity, packaging and design of the explosive.”.

(Reference document: Report of the Working Group on Explosives INF.38, paragraph 13 (TDG Sub-Committee, 57th session))

2.1.1.2 Add the following new paragraphs 2.1.1.2.3 to 2.1.1.2.3.2:

“2.1.1.2.3 For explosive articles that are assigned a specific UN number in a class other than Class 1 according to the Dangerous Goods List of the *UN Model Regulations*, the following applies.

2.1.1.2.3.1 Explosive articles that are assigned a specific UN number in Class 2, 3, 4 or 5 are classified in the GHS hazard class and, where available, category corresponding to the transport classification, and excluded from the hazard class explosives, provided that:

- (a) they are in the transport configuration; or
- (b) the transport classification does not depend on a particular configuration; or
- (c) they are in use, see 2.1.1.3.4.

2.1.1.2.3.2 Explosive articles that are assigned a specific UN number in Class 9 are classified as explosives in Sub-category 2C, provided that:

- (a) they are in the transport configuration; or
- (b) the transport classification does not depend on a particular configuration; or
- (c) they are in use, see 2.1.1.3.4.

NOTE 1: Subject to approval from the competent authority, explosive articles that are assigned a specific UN number in division 6.1 within Class 6 or in Class 8 may be classified in the GHS hazard class and, where available, category corresponding to the transport

classification, and excluded from the hazard class explosives, provided that conditions (a) to (c) of 2.1.1.2.3.1 are met.

NOTE 2: According to the UN Model Regulations, articles are normally not assigned packing groups and hence a category within the corresponding GHS hazard class cannot always be assigned on this basis. Expert judgement should be used to assign an appropriate category in these cases, taking into account the GHS classification of the substances or mixtures contained.”

(Reference documents: informal documents INF.29 and INF.30)

2.1.1.3.4 In the second sentence, replace “no longer retains” with “may no longer retain”.

(Reference document: Report of the Working Group on Explosives INF.38, paragraph 13 (TDG Sub-Committee, 57th session))

2.1.2.1 In the criteria for Category 1, under (a) (ii), replace “positive effects” with “positive results”.

(Reference document: Report of the Working Group on Explosives INF.38, paragraph 13 (TDG Sub-Committee, 57th session))

Document ST/SG/AC.10/C.4/2020/18, adopted with the following modifications:

In decision logic 2.1 (a):

Amend the text in box 2B to read “Is it in the primary packaging to which a division was assigned?”.

Amend the text in box 3B to read “Is it an explosive article where the division has been assigned (i) in a primary packaging that does not attenuate the explosive effect or (ii) without a primary packaging?”.

On the arrow from box 3B to box 2C, replace “No” by “Yes”.

On the arrow from box 3B to box 4C, replace “Yes” by “No”.

(Reference documents: informal documents INF.22 and INF.30)

In box 5A, replace “positive effects” with “positive results”.

(Reference document: Report of the Working Group on Explosives INF.38, paragraph 13 (TDG Sub-Committee, 57th session))

In decision logic 2.1 (b):

Amend table note a to read as follows:

“^a In the absence of results from test 6 (a) or 6 (b), results from test 6 (d) may be used to assess whether there was a high hazard event, see 2.1.2.1. If the configuration includes attenuating features that are likely to mitigate a high hazard event, such as spacing or a specific orientation of explosive articles, Sub-category 2A may be assigned without the need to assess test data.”

(Reference documents: informal documents INF.25 and INF.30)

Documents ST/SG/AC.10/C.4/2020/8 and ST/SG/AC.10/C.4/2020/8/Add.1, adopted with the following additional amendment:

In the new row for P236 in ST/SG/AC.10/C.4/2020/8/Add.1, in column (5), before “May be omitted for single packagings ... (within Class 1) appears.”, add:

“To be applied for explosives assigned a division within Class 1 for transport.”

Document ST/SG/AC.10/C.4/2020/10, proposal in paragraph 7: adopted.

Document ST/SG/AC.10/C.4/2020/2, proposals in paragraphs 5, 6, 8, 9 and 10, adopted.

Document ST/SG/AC.10/C.4/2020/11, adopted with the following modification:

In proposal 2, amend the new text to be inserted at the beginning of Chapter 1.2 to read as follows:

“This Chapter provides definitions and abbreviations of general applicability that are used in the GHS. Additional definitions of the individual hazard classes and related terms are presented in the relevant chapters.”

(Reference document: informal document INF.18)

Document ST/SG/AC.10/C.4/2020/3 adopted as amended by ST/SG/AC.10/C.4/2020/3/Add.1 (paragraphs 3, 5 (for 4.1.3 (b) only) and 6), with the correction to the French version of decision logic 3.5.1 (c) in informal document INF.5 and the following additional amendment:

In the French version of ST/SG/AC.10/C.4/2020/3/Add.1, replace the amendment to 4.1.3 (b) in paragraph 5 to read: « Dans le diagramme de décision 4.1.3 b) remplacer (cinq fois) « CSEO » par « CSEO ou CE_x ».

Document ST/SG/AC.10/C.4/2020/6/Add.1, proposal 3 (b) in paragraph 5 and proposal in paragraph 6: adopted.

Document ST/SG/AC.10/C.4/2020/12: adopted.

Document ST/SG/AC.10/C.4/2020/1, option 2: adopted.

Informal document INF.16, adopted as amended, as follows:

In Annex 3 of the GHS, section 3 replace the three first matrix tables by the following:

**EXPLOSIVES
(CHAPTER 2.1)**

Hazard category	Symbol	Signal word	Hazard statement
1	Exploding bomb	Danger	H209 Explosive H210 Very sensitive H211 May be sensitive



Precautionary statements			
Prevention	Response	Storage	Disposal
<p>P203 Obtain, read and follow all safety instructions before use.</p> <p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P230 Keep diluted with... <i>- for explosive substances and mixtures that are diluted with solids or liquids, or wetted with, dissolved or suspended in water or other liquids to reduce their explosives properties</i> ... Manufacturer/supplier or the competent authority to specify appropriate material.</p> <p>P240 Ground and bond container and receiving equipment. <i>- if the explosive is electrostatically sensitive.</i></p> <p>P250 Do not subject to grinding/shock/friction/... <i>- if the explosive is mechanically sensitive.</i> ...Manufacturer/supplier or the competent authority to specify applicable rough handling.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/... Manufacturer/supplier or the competent authority to specify the appropriate personal protective equipment.</p>	<p>P370 + P372 + P380 + P373 In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.</p>	<p>P401 Store in accordance with... ... Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable.</p>	<p>P503 Refer to manufacturer/supplier/... for information on disposal/recovery/recycling ... Manufacturer/supplier or the competent authority to specify appropriate source of information in accordance with local/regional/national/international regulations as applicable.</p>

**EXPLOSIVES
(CHAPTER 2.1)**

Hazard category	Symbol	Signal word	Hazard statement
2A	Explosion bomb	Danger	H209 Explosive
2B	Explosion bomb	Warning	H204 Fire or projection hazard



Precautionary statements			
Prevention	Response	Storage	Disposal
<p>P203 Obtain, read and follow all safety instructions before use.</p> <p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P230 Keep diluted with... <i>- for explosive substances and mixtures that are diluted with solids or liquids, or wetted with, dissolved or suspended in water or other liquids to reduce their explosives properties</i> ... Manufacturer/supplier or the competent authority to specify appropriate material.</p> <p>P234 Keep only in original packaging. <i>- Omit where P236 is applied</i></p> <p>P236 Keep only in original packaging; Division ... in the transport configuration. <i>- to be applied for explosives assigned a division within Class 1 for transport.</i> <i>- may be omitted for single packaging where the transport pictogram displaying the division (within Class 1) appears.</i> <i>- may be omitted where the use of different outer packaging results in different divisions for transport.</i> ... Manufacturer/supplier or the competent authority to specify the division for transport.</p> <p>P240 Ground and bond container and receiving equipment. <i>- if the explosive is electrostatically sensitive.</i></p> <p>P250 Do not subject to grinding/shock/friction/... <i>- if the explosive is mechanically sensitive.</i> ... Manufacturer/supplier or the competent authority to specify applicable rough handling.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/... Manufacturer/supplier or the competent authority to specify the appropriate personal protective equipment.</p>	<p>P370 + P372 + P380 + P373 In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.</p>	<p>P401 Store in accordance with... ... Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable.</p>	<p>P503 Refer to manufacturer/supplier/... for information on disposal/recovery/recycling ... Manufacturer/supplier or the competent authority to specify appropriate source of information in accordance with local/regional/national/international regulations as applicable.</p>

**EXPLOSIVES
(CHAPTER 2.1)**

Hazard category	Symbol	Signal word	Hazard statement
2C	Exclamation mark	Warning	H204 Fire or projection hazard



Precautionary statements			
Prevention	Response	Storage	Disposal
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P230 Keep diluted with... <i>- for explosive substances and mixtures that are diluted with solids or liquids, or wetted with, dissolved or suspended in water or other liquids to reduce their explosives properties</i> ... Manufacturer/supplier or the competent authority to specify appropriate material.</p> <p>P234 Keep only in original packaging. <i>- Omit where P236 is applied</i></p> <p>P236 Keep only in original packaging; Division ... in the transport configuration. <i>- to be applied for explosives assigned a division within Class 1 for transport.</i> <i>- may be omitted for single packaging where the transport pictogram displaying the division (within Class 1) appears.</i> <i>- may be omitted where the use of different outer packaging results in different divisions for transport.</i> ... Manufacturer/supplier or the competent authority to specify the division for transport.</p> <p>P240 Ground and bond container and receiving equipment. <i>- if the explosive is electrostatically sensitive.</i></p> <p>P250 Do not subject to grinding/shock/friction/... <i>- if the explosive is mechanically sensitive.</i> ...Manufacturer/supplier or the competent authority to specify applicable rough handling.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/... Manufacturer/supplier or the competent authority to specify the appropriate personal protective equipment.</p>	<p>P370 + P380 + P375 In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion</p>	<p>P401 Store in accordance with... ... Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable.</p>	<p>P503 Refer to manufacturer/supplier/... for information on disposal/recovery/recycling ... Manufacturer/supplier or the competent authority to specify appropriate source of information in accordance with local/regional/national/international regulations as applicable.</p>

(Reference document: informal document INF.16 as amended)

Annex II

Programme of work of the Sub-Committee for 2021-2022

1. Classification criteria and related hazard communication, including:

- (a) Tests for oxidizing liquids and oxidizing solids
Lead country: France
Focal point: TDG Sub-Committee
Mandate/Terms of reference: informal document INF.22 (thirty-sixth session) and report of the Sub-Committee on its thirty-sixth session (ST/SG/AC.10/C.4/72, paragraph 19) and paragraph 13 of the present report.
- (b) Use of non-animal testing methods for classification of health hazards
Lead countries: Netherlands and United Kingdom
Mandate/Terms of reference: informal document INF.26 and paragraph 26 of the present report
- (c) Classification of skin sensitizers using the results of local lymph node assays (LLNA) test methods in accordance with OECD Test Guideline 442B
Lead country: Japan
Reference: Informal document INF.15 and paragraph 54 (a) of the present report.
- (d) Classification criteria for germ cell mutagenicity (sub-category 1B)
Focal point: Informal working group on germ cell mutagenicity (sub-category 1B) (work organised by the Joint Research Center (JRC) of the European Commission)
Reference: Informal document INF.37 and paragraph 35 of the present report.
- (e) Practical classification issues
Lead country: United States of America
Focal point: Informal correspondence group on practical classification issues
Mandate/Terms of reference: informal document INF.31 and paragraph 27 of the present report.
- (f) Nanomaterials
Mandate/Terms of reference: informal document INF.27 (thirty-second session) and reports of the Sub-Committee on its thirty-second, thirty-sixth and thirty-eighth sessions (ST/SG/AC.10/C.4/64, paragraph 32; ST/SG/AC.10/C.4/72, paragraph 42; ST/SG/AC.10/C.4/76, paragraph 24) and paragraph 54 (c) of the present report.
- (g) Simultaneous classification in physical hazard classes and precedence of hazards
Lead country: Germany
Mandate/Terms of reference: ST/SG/AC.10/C.4/2018/21, as amended and report of the Sub-Committee on its thirty-sixth session (ST/SG/AC.10/C.4/72, paragraph 74). See also paragraph 25 of the present report.

2. Other hazard communication matters, including:

- (a) Practical labelling issues
Lead organization: Cefic
Background document: informal document INF.28 and paragraph 37 of the present report
- (b) Improvement of Annexes 1 to 3 and further rationalization of precautionary statements
Lead country: United Kingdom
Mandate/Terms of reference: informal document INF.21 and paragraph 55 of the present report.

3. Implementation issues, including:

- (a) Assessing the possible development of a list of chemicals classified in accordance with the GHS
Lead country: Canada and United States of America
Mandate/Terms of reference: Document ST/SG/AC.10/C.4/2020/17 and paragraphs 44 and 45 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 to give effect to the GHS through such instruments

4. Guidance on the application of the GHS criteria, including:

- (a) Development of examples illustrating application of criteria and any related hazard communication issues, as needed
Lead country: United States of America
Focal point: Informal correspondence group on practical classification issues
Mandate/Terms of reference: informal document INF.31 and paragraph 27 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: informal document INF.9/Rev.1 and paragraph 42 of the present report.

5. Capacity building, including:

- (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