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 **7 July 2017**

Thirty-third session
Geneva, 10-12 July 2017
Item 4 (a) of the provisional agenda
Implementation of the GHS: Development of a list of chemicals classified in accordance with the GHS

Assessing the potential development of a global list of classified chemicals

Transmitted by the expert from the United States of America on behalf of the informal correspondence group

Purpose

1. The purpose of this document is to provide an update on the work undertaken by the informal correspondence group assessing the potential development of a global list of classified chemicals, and an agenda for the group's meeting at the 33rd Session.

Background and update

2. For the coming biennium, the Subcommittee agreed to the following scope of work for the global list correspondence group:

(a) Complete the chemical classification project

(b) Complete the proposed list comparison, looking for endpoints in which the EU and Japan classifications agree

(c) Consider whether there is sufficient interested to warrant additional work at this time on the Global List project, or whether the work of the correspondence group group should be put on hold until additional interest develops

(d) If the work moves ahead, consider the proper role of the GHS Sub-Committee in that effort.

(ST/SG/AC.10/C.4/64 para 53; Inf. 40, 32nd Sess. Para 6.)

3. To complete the chemical classification project, the working group has submitted a working paper to both this Sub-Committee and the TDG Sub-Committee (ST/SG/AC.10/C.4/2017/1 - ST/SG/AC.10/C.3/2017/7.) This paper advises other international bodies who might be impacted by the GHS Sub-Committee's adoption of chemical classifications about the pilot project. It also seeks input on any possible impacts and ways they might be overcome, suggestions on improvements on the process used, and any other issues of concern.

4. In addition, on 31 May 2017, the correspondence group held a teleconference in which the other items in the scope of work were discussed. Minutes of that teleconference are attached as Annex 1.

5. An initial comparison between the ECHA RAC and Japan classifications was discussed. Of the chemicals in common between the two lists, none had identical classifications. A number of concerns were voiced about a comparison done in this way, including that the ECHA RAC opinions do not necessarily address all endpoints, and that many of the EU classifications are based on old classifications done under a pre-GHS Directive and translated to GHS classifications.

6. Nonetheless it was thought that further work on a list comparison would be useful in discovering reasons for divergences. In particular it might be helpful to identify ambiguities in GHS criteria that could be clarified, or situations where the divergences appear to be based on the use of different data sets. As next steps, the committee agreed to:

(a) A comparison of chemicals between the ECHA RAC and Japanese lists for which a classification had been done for all endpoints. ECHA agreed to identify all RAC opinions that classified all endpoints.

(b) A comparison of lists for one endpoint. Germany agreed to examine the carcinogenicity classifications in the EU-Japan comparison already compiled to see what could be learned about the reasons for differences and what conclusions could be drawn from them.

7. In addition, some members of the correspondence group noted substantial interest from stakeholders in the possibility of a global list. However, it seemed unlikely at this point that a comparison list could lead directly to a harmonized global list, and it was noted that downstream consequences for some classifications, particularly acute toxicity, might make harmonization difficult. It was also noted that the European Commission voiced cautiousness in setting up a global process in parallel to the well installed and transparent European classification system.

8. Though the working group did not have a chance to address it, the TDG Secretariat provided a list comparing the TDG classifications of the chemicals on the EU-Japan comparison list to those of the EU and Japan. See Annex 2.

Meeting agenda

9. Interested persons are invited to attend the meeting of the correspondence group in the plenary room during a break in the 33rd Session of the GHS Sub-Committee in the morning of 11 July 2017. A proposed agenda follows:

(a) Reflections/feedback on ST/SG/AC.10/C.4/2017/1.

(b) Further discussion of the list comparison exercise, including how/whether to include TDG classifications.

(c) Discussion of ideas for other work of the global list correspondence group.

Annex 1

Global List Correspondence Group
GHS Sub-Committee
Minutes from 31 May 2017 Teleconference

1. Participants: Ed Baird (US, Chair), Bratati Kar (Canada), Karin Merkl (CEFIC), Karin Krauss (European Commission), Ben Barrett (DGAC), Sabine Darschnik (Germany), Robin Foster (UK), Gunilla Ericsson (ECHA)

2. We discussed who might present the Global List Working Paper at the TDG. Ben said he would be at the meeting, and Karin Merkl suggested Eva Kessler would be there too. Ed will coordinate between the two to find a presenter.

3. We discussed the preliminary comparison list between EU and Japan that was prepared by the US and Canada:

    a. There was much discussion over a number of aspects of the EU classifications not captured in the comparison list:

        i. The RAC opinions often do not address all endpoints especially for industrial chemicals (not used as an active ingredient in a pesticide or biocide).

        ii. The legacy Annex VI, CLP classifications, that were used to develop the list, are based on classifications originally done under pre-GHS Directives, that were translated to GHS classifications. For some endpoints, such as Acute Toxicity, the resulting classifications are minimum classifications and marked with asterisks.

        iii. The EU also adopts concentration limits and M factors, which were not noted in the comparison list. At least one error in transcription of the classification was also noted (For example, Formaldehyde is classified by the EU as a 1B, not 1A carcinogen.)

    b. Other issues, which should be taken into consideration in the comparison list, were noted, including:

        i. How to compare inclusive classifications, such as a Skin Corr 1 in one jurisdiction vs. a Skin Corr 1A in another.

        ii. How to compare classifications where the two jurisdictions have adopted a hazard class differently (e.g. one has adopted Acute Tox 5, and the other has not)

        iii. There might be differences in impurities and concentrations of the subject chemicals as marketed in the two jurisdictions, which could impact classification

        iv. Different competent authorities accept different tests for classification, e.g. mouse vs. rat

4. It was agreed that it was worth pursuing further the comparison classification list . The hope of this effort would be to identify the reasons for disharmony, to see if they might be addressed in some way by the Subcommittee. In particular, a comparison might identify ambiguities in classification criteria that might be clarified, and where classifications resulted from differences in data, highlighting that fact might lead competent authorities to revisit their classifications.

5. Some participants noted that there was a substantial interest from stakeholders in the possibility of a global list. However, it seemed unlikely at this point that a comparison list could lead directly to a harmonized global list, and it was noted that downstream consequences for some classifications, particularly acute toxicity, might

make harmonization difficult. It was also noted that the European Commission voiced cautiousness in setting up a global process in parallel to the well installed and transparent European classification system.

6. Two steps forward were identified:

    a. A comparison of chemicals between lists for which a classification had been done for all endpoints. Gunilla agreed to identify all RAC opinions that classified all endpoints. It was thought that these would mainly be biocides and pesticides; Ed would check to see whether the US would have an objection to pursuing a comparison for these chemicals.

    b. A comparison of lists for one endpoint. Sabine agreed to examine the carcinogenicity classifications in the EU-Japan comparison already compiled to see what could be the reasons for differences and what conclusions could be drawn from them.

7. The correspondence group did not have a chance to review Olivier's email about the preliminary classification list. This will be considered further at the July meeting in Geneva.

8. There was not much comment about the ChemAdvisor study, other than that it identified similar problems in developing a list that we discussed above.

Annex 2

Formaldehyde: Not listed in Transport Dangerous Goods list, probably because the pure substance is gaseous and it is only transported as solutions

Solutions with not less than 25% formaldehyde are identified as corrosive (i.e. GHS corrosion to skin Cat.1)

Therefore EU classification seems consistent with transport, but not Japan.

Not identified as Acute toxic in transport. Solutions with less than 25% formaldehyde are considered not dangerous, except solutions in flammable liquids

Nicotine: Transport classification consistent with EU (Acute toxic cat.2 for at least one route of exposure), but not with Japan

Methylhydrazine: EU classification is not consistent with transport, Japanese classification is more consistent except for skin corrosion. For transport, Acute tox (inhalation) Cat.1, Flammable liquid cat.1 and skin corrosion Cat.1 (not category 2).

Methanol: For transport, Flammable liquid cat.2 (consistent with EU and Japan)

Identified as Acute toxic but on the basis of experience, not on the basis of criteria (theft during transport for manufacture of adulterated alcohol and dramatic consequences worldwide). Therefore Japan classification according to criteria seems to be correct, but EU classification more appropriate in terms of hazard communication consistency.

Chloroform: Transport classification consistent with EU (Acute tox Cat.3 for at least one route of exposure, not corrosive to skin)

Tert-butyl hydroperoxide: Classification depends on concentration. Concentration above 90% not authorized in transport.

Concentrations equal to or below 90% are organic peroxides type C, D, E or F.

Not identified as flammable liquid in transport, but symbol on transport pictogramme is the same as for flammable liquids, so no inconsistency.

Identified as corrosive to skin, Cat.1 in transport.

Not identified as Acute toxic Cat.3 in transport.

4-tert-butylphenol: Skin corrosion Cat.1 for transport

Nitrobenzene: Acute toxic packing group II (corresponding to Acute toxic Cat.2 for at least one route of exposure) but transport classification based on human experience. Transport labelling would be consistent with EU, but not Japan

Butane, 1,2-epoxy: Transport consistent with EU, not with Japan (Not identified as corrosive to skin in transport).

Acrolein: Transport classification consistent with EU and Japan for Acute toxicity and flammability, but not identified as corrosive to skin Cat.1 for transport.

Vinyl acetate: Transport classification consistent with EU, but stabilization required for transport which implies self-reactive type G, as in Japan classification, might be relevant for non stabilized forms.

Ethylene glycol monoethyl other: Transport classification consistent with Japan, but not with EU (Flam. Liq Cat.3, but no inhalation Acute Toxicity Cat.3).

Copper:	Depending on particle size, copper powder may be flammable solid. Although the UNECE secretariat is not aware of other physical hazard properties of copper, some metal powders may have self-heating properties and some metallic substances may react with water to emit flammable gases. Therefore, those properties should be checked for all metals listed. For EU classification, it is not clear under which form copper is toxic by inhalation, Cat.3.
Nitric acid:	Transport consistent with EU and Japan for skin corrosion and oxidizing liquids, but only red fuming nitric acid is identified as Acute toxic for transport.
Cadmium nitrate:	Cadmium compounds (UN 2570) are listed as acute toxic Cat.3 by at least one route of exposure for transport. As this is a nitrate, oxidizing properties should be checked and UN 3087 is probably more relevant (oxidizing Cat.2 and Acute tox Cat.3 oral found in literature on internet).
Cadmium hydroxide:	Cadmium compounds (UN 2570) are listed as acute toxic Cat.3 for transport.
Bendiocarb, piricarb and any other pesticide:	Transport classification for acute toxicity is in accordance with the LD_{50} toxicity data contained in the WHO Recommended classification of pesticides by Hazard and Guidelines to classification, so concordance with the WHO list should be checked.