UN/SCEGHS/41/INF.13/Add.1

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 **2 December 2021**

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Item 3 (a) of the provisional agenda

Implementation of the GHS: possible development of a list of chemicals classified in accordance with the GHS

GHS chemical classification list survey

Transmitted by the experts from Canada and the United States of America on behalf of the informal correspondence group

United Nations GHS Chemical Classification List Survey

The United Nations Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Global List informal correspondence group is conducting a survey of existing national, regional, and third-party chemical classification lists that follow the GHS. The goal of the survey is to understand how the lists were developed and how they compare to guiding principles developed by the informal correspondence group. See ST/SG/AC.10/C.4/48, Annex III, p. 18 for the guiding principles. For additional background on the survey and the UN discussion, see UN/SCEGHS/40/INF.15 and ST/SG/AC.10/C.4/80 paragraphs 41 to 43.

You have been identified as having expertise in a chemical classification list; the following survey includes a series of questions about the applicable list, including how it was developed, whether the rationale and data underlying the classifications are available, whether the list is legally binding, and what hazard categories and classes are included in the list.

The survey will take approximately one hour to complete and is provided in English. If you need translation services or need the survey to be provided in a different format, if you have any technical questions or issues completing the survey, or questions related to the survey material, please contact the contractor's survey help email at surveyhelp@erg.com.

You can complete this survey online using the username and password credentials provided in the survey invitation email you received (or was otherwise shared with you) for your applicable chemical list:

https://erg.qualtrics.com/UN-GHS-Chemical-Classification-List-Survey

Thank you for your participation!

General Questions

Name of country, jurisdiction or organization:

_____

Contact information for the survey respondent:

Name: _____
Affiliation/Organization: _____
Business address: _____
Email address: _____
Other contact method: _____

What is the GHS implementation status? (Select all that apply)

- ☐ GHS is legally implemented in one or more possible sectors (that is, the GHS has been adopted through a legally binding instrument, such as a law, decree, regulation, mandatory standard, etc. and the instrument is in force.)
- ☐ GHS is implemented on a voluntary basis in one or more possible sectors (that is, the GHS has been incorporated into a non-mandatory instrument, such as voluntary standards, recommendations, guidance, etc. and/or is voluntary.)
- ☐ GHS implementation is in transition* to legal implementation (*this excludes transition to a more recent version of the GHS)
- ☐ GHS implementation is in transition* to implementation on a voluntary basis (*this excludes transition to a more recent version of the GHS)
- ☐ Other (please provide brief explanation below)
- ☐ Not implemented
- ☐ Not applicable (organization)
- ☐ Not applicable (other, please provide brief explanation below)

If necessary, please provide a brief explanation of your response in the space below.

_____
_____
_____

If the GHS has been implemented, what sectors has the GHS been implemented for? If the GHS implementation is in transition, what sectors will the GHS be implemented for? (Select all that apply)

- ☐ Consumer
- ☐ Emergency Response
- ☐ Environment
- ☐ Pesticides
- ☐ Pharmaceuticals – human
- ☐ Pharmaceuticals – veterinary (animal)
- ☐ Production
- ☐ Storage
- ☐ Transport
- ☐ Workplace
- ☐ Other

If the GHS has been implemented, which version of the GHS is currently implemented? If the GHS implementation is in transition*, which version of the GHS is planned to be implemented? (Select all that apply)

*This excludes transition to a more recent version of the GHS

- ☐ GHS 1st edition
- ☐ GHS Rev.1
- ☐ GHS Rev.2
- ☐ GHS Rev.3
- ☐ GHS Rev.4
- ☐ GHS Rev.5
- ☐ GHS Rev.6
- ☐ GHS Rev.7
- ☐ GHS Rev.8
- ☐ GHS Rev.9

Does this country or organization have a classification list?

- ○ Yes
- ○ No

If no, is there a publicly known intent for the government, a competent authority or organization to create a list?

- ○ Yes
- ○ No

Does this list align with the GHS or the jurisdiction's implementation (past or present) of the GHS?

- ○ Yes
- ○ No
- ○ Partially (Please explain) _____

What authority or organization is responsible for this list (for example, administration of this list, making this list available)?

_____

_____

Who has performed the classifications (for example, technical experts internal to the authority or organization responsible for this list, a third-party contracted company)?

- ○ Technical experts internal to the authority or organization responsible for this list
- ○ Technical experts external to the authority or organization responsible for this list (please provide name of the authority, organization or company)

  _____
- ○ Other (please state) _____

Provide a brief summary of the classification process, as relevant.

_____

_____

What is the purpose of this list? (Select all that apply)

- ☐ Harmonize classification
- ☐ Assist stakeholders with classifications
- ☐ Verify compliance
- ☐ Restrict substances
- ☐ Other (please state) _____

Is this list publicly available or restricted?

- ○ Publicly available. If possible, please attach the list to this survey (for example, an excel or pdf file)
- ○ Restricted

  If restricted, is there a publicly known intent for the government, a competent authority or organization to make this list publicly available?

  - ○ Yes
  - ○ No

Is access to this list free of charge?

- ○ Yes
- ○ No

What is the web link for this list (if available)? _____

Is this list available in English?

- ○ Yes
- ○ No

Is this list available in another language?

- ○ Yes (please list the other language(s) this list is available in):
  _____
- ○ No

Are external classification lists considered in the process of classification?

- ○ Yes (please list the classification list(s) considered):
  _____
- ○ No

Is there a contact for this list (for example, if another authority, organization or member of the public wanted information about this list, who should they contact)?

- ○ Yes, the contact is the same as survey respondent
- ○ Yes, there is another primary contact (please list below)
- ○ Yes, there is generic contact form or email available (please provide):
  _____
  _____
- ○ Other (please explain):
  _____
  _____
- ○ No

If there is another primary contact, please provide their contact information:

Name of contact: _____
Affiliation/Organization: _____
Email address of contact: _____
Other contact information: _____

Are there other relevant chemical classification lists to be noted for this country/jurisdiction or organization?

- ○ Yes (please provide the name of the other relevant chemical classification lists):
  _____
  _____
- ○ No
- ○ Do not know
- ○ There are other chemical classification lists, but they are not related to the GHS

Guiding principle (a) The process for developing and maintaining a global list must be clear, transparent and follow the principles of the GHS. Opportunities should be provided for stakeholders to provide input as well as mechanisms for expert review, conflict resolution and updating the list when new significant data or information become available

Guiding principle (a) Questions:

In the process leading to changes to this list (for example, adding or removing chemicals, changing classification information for a substance), is there an opportunity for stakeholders to provide input?
Stakeholders can include, but are not limited to: relevant authorities, relevant intergovernmental organisations, business/industry associations, non-governmental organisations representing the civil society, organisations representing the interest of employees potentially affected, academia and other jurisdictions potentially affected.

- ○ Yes
- ○ No

If yes, please indicate the stakeholders involved with a brief explanation of their role. For example, are the relevant stakeholders consulted on changes to this list? Do changes to this list require approval from stakeholders (for example, in a council or committee)?

_____
_____
_____

If yes, is there an opportunity for public consultation?

- ○ Yes
- ○ No

Do the classifications have a mechanism for expert review?

- ○ Yes
- ○ No

If yes, are the classifications subject to an internal peer review? (for example, within the competent authority or organization responsible for administering this list)

- ○ Yes
- ○ No

If yes, are the classifications subject to an external peer review? (for example, outside the competent authority or organization responsible for administering this list)

- ○ Yes
- ○ No

Does this list have a mechanism for conflict resolution?
Conflict can be considered as differing opinions amongst stakeholders or experts, with conflict resolution referring to the mechanism used to address the differing opinions. For example, is there mediation or arbitration? That is, are classifications based on consensus or is there an arbitrator in the system that makes a final decision (such as the competent authority)? Is there access to juridical procedures?

- ○ Yes
- ○ No

If yes, is this mechanism considered to be part of the process of establishing classifications on this list?

- ○ Yes
- ○ No
- ○ Other (please explain)

_____
_____

If yes, please provide a brief summary of this mechanism.

_____
_____
_____

Is there a mechanism for updating the classifications when new significant data or information become available?

New and significant information is any information that changes the classification of the substance or mixture and leads to a resulting change in the information provided on the label or any information concerning the chemical and appropriate control measures that may affect the SDS (GHS paragraph 1.4.7.2.1)

- ○ Yes
- ○ No

If yes, is this mechanism real time updating? (for example, if significant new data that would result in a classification change are identified, is the mechanism for revising the classification initiated, as opposed to waiting for the next cyclical update)?

- ○ Yes
- ○ No
- ○ Other (please explain)

_____
_____

If yes, is this mechanism cyclical in nature? (for example, every two years, if relevant)?

- ○ Yes (please state the time period for the application of this mechanism)

_____
_____

- ○ No
- ○ Other (please explain)

_____
_____

If yes, is it possible for stakeholders to initiate updates to this list?

- ○ Yes
- ○ No
- ○ Other (please explain)

_____
_____

Guiding principle (b) All GHS hazard categories and classes must be included in the global list of classified chemicals

Guiding principle (b) Questions:

Hazard classes and categories may vary between GHS revisions.

For a country/jurisdiction, which implementation of the GHS are the classifications based on? For an organization, which version of the GHS are the classifications based on? (Select all that apply)

- ☐ GHS 1st edition
- ☐ GHS Rev.1
- ☐ GHS Rev.2
- ☐ GHS Rev.3
- ☐ GHS Rev.4
- ☐ GHS Rev.5
- ☐ GHS Rev.6
- ☐ GHS Rev.7
- ☐ GHS Rev.8
- ☐ GHS Rev.9
- ☐ Other (please explain)

_____

_____

If more than one version is selected, please provide a brief explanation.

_____

_____

_____

Are all hazard classes and categories from the GHS version used included for the classifications?

- ○ Yes
- ○ No

  If no, for which hazard classes and categories from the GHS version used were classifications not performed?

  [List of the applicable hazard classes and categories listed in the Annex to this document as check boxes (select all that apply), based on the answer to the previous question]

- ○ Other (please explain)

  _____
  _____

Does this list include hazards not addressed in the GHS?

- ○ Yes
- ○ No

  If yes, please provide a brief description of the hazards.

  _____
  _____
  _____

Please provide a reference for the applied classification criteria (for example, the regulation or relevant version of the GHS, as applicable).

_____
_____
_____

Guiding principle (c) Only substances, as defined by the GHS, will be included in the global list of classified chemicals

Guiding principle (c) Questions:

Substance means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changings its composition. (GHS Chapter 1.2)

Mixture means a mixture or a solution composed of two or more substances in which they do not react. (GHS Chapter 1.2)

Does this list include: (Select all that apply)

- ☐ Substances (as defined by the GHS)?
- ☐ Mixtures (as defined by the GHS)?
- ☐ Other chemical compounds outside the scope of the GHS definition of substance and mixture? (Please provide the definitions that apply to this list, as applicable.)

_____

_____

Does this list include only prioritised chemicals?

- ○ Yes
- ○ No

If yes, is it limited to specific hazards?

- ○ Yes (please list the hazards or provide a brief description):
- ○ No

If yes, is it limited to high-volume chemicals?

- ○ Yes
- ○ No

If yes, what other criteria are applied?

_____

_____

_____

What is the total number of chemicals on this list? _____

Optional:

How many substances (as defined by the GHS)? _____
How many mixtures (as defined by the GHS)? _____
How many compounds excluded from the GHS definition of substances and mixtures? _____

Guiding principle (d) All substances must be accurately identifiable and described for each entry (e.g. including Chemical Abstracts Service Registry Numbers (CAS numbers), the UN numbers assigned under transport of dangerous goods regulations where assigned/applicable, and relevant impurities)

Guiding principle (d) Questions

How are chemicals identified in this list? (Select all that apply)

- ☐ Common name
- ☐ International Union of Pure and Applied Chemistry (IUPAC) name
- ☐ Chemical Abstract Service (CAS) Registry Number
- ☐ UN number (under UN Recommendations on the Transport of Dangerous Goods Model Regulations)
- ☐ National coding scheme
- ☐ Regional coding scheme
- ☐ Other (please specify):

_____
_____

How are chemicals described for each entry on this list? For example, for chemicals on this list are relevant impurities named, if applicable?

The GHS does not have a definition for impurities but it may be understood within the context of the GHS definition of substance:

Substance means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changings its composition.

_____
_____
_____

Guiding principle (e) The data sets forming the basis for the chemical classification must be referenced with the classification. The source of the information must also be electronically available, and publicly accessible. The data should be derived using test methods that are scientifically sound and validated according to international procedures

Guiding principle (e) Questions

Are documents from the decision making process electronically available and publicly accessible? If partially, what are the limitations?

- ○ Yes
- ○ No
- ○ Partially. Please state the limitations:

  _____
  _____

Is the dataset on which the classification is based referenced with the classification? If partially, what are the limitations?

- ○ Yes
- ○ No
- ○ Partially. Please state the limitations:

  _____
  _____

Is the dataset on which the classification is based electronically available and publicly accessible? If partially, what are the limitations?

- ○ Yes
- ○ No
- ○ Partially. Please state the limitations:

  _____
  _____

Are the data available in sufficient detail for an independent assessment to be conducted?

- ○ Yes
- ○ No

How does the classification process take GHS paragraph 1.3.2.4.3 into consideration, with the understanding that the classification process can be complex and available data from testing or studies will be dependent on the generally accepted standards of good scientific practice at the time the test or study was conducted?

Tests that determine hazardous properties, which are conducted according to internationally recognized scientific principles, can be used for the purposes of a hazard determination for health and environmental hazards. The GHS criteria for determining health and environmental hazards are test method neutral, allowing different approaches as long as they are scientifically sound and validated according to international procedures and criteria already referred to in existing systems for the hazard of concern and produce mutually acceptable data. Test methods for determining physical hazards are generally more clear-cut, and are specified in the GHS. (GHS paragraph 1.3.2.4.3)

_____
_____
_____

Guiding principle (f) The global list of chemical classifications will be non-binding. As with the GHS itself, countries will have the option to make the list binding if they adopt it through their legislative and/or regulatory process. Furthermore, the development of a global list is compatible with the GHS principle of self-classification.

Guiding principle (f) Question

Are the classifications legally binding or non-binding?

- ○ Legally binding
- ○ Non-binding

If legally binding, please provide the reference for the legislation:

_____
_____

Guiding principles (Annex III, page 18):
https://www.unece.org/fileadmin/DAM/trans/doc/2012/dgac10c4/ST-SG-AC10-C4-48e.pdf

Hazard Classes & Categories Annex

The following is a list of hazard classes and categories from all versions of the GHS.

Physical Hazard Classes

- **Explosives**
  - Unstable explosives (1st edition to GHS Rev.8)
  - Division 1.1 to 1.6 (1st edition to GHS Rev.8)
  - Category 1 (GHS Rev.9 to present)
  - Category 2 (GHS Rev.9 to present)
    - Category 2A (GHS Rev.9 to present)
    - Category 2B (GHS Rev.9 to present)
    - Category 2C (GHS Rev.9 to present)
- **Flammable Gases**
  - Flammable gas Category 1 (1st edition to GHS Rev.6)
  - Flammable gas Category 2 (1st edition to GHS Rev.6)
  - Chemically unstable gas Category A (GHS Rev.4 to GHS Rev.6)
  - Chemically unstable gas Category B (GHS Rev.4 to GHS Rev.6)
  - Pyrophoric gas (GHS Rev.6)
  - Category 1A Flammable gas (GHS Rev.7 to present)
  - Category 1A Pyrophoric gas (GHS Rev.7 to present)
  - Category 1A Chemically unstable gas A (GHS Rev.7 to present)
  - Category 1A Chemically unstable gas B (GHS Rev.7 to present)
  - Category 1B Flammable gas (GHS Rev.7 to present)
  - Category 2 Flammable gas (GHS Rev.7 to present)
- **Aerosols**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)
  - Category 3 (GHS Rev. 4 to present)
- **Chemicals Under Pressure**
  - Category 1 (GHS Rev.8 to present)
  - Category 2 (GHS Rev.8 to present)
  - Category 3 (GHS Rev.8 to present)
- **Oxidizing Gases**
  - Category 1 (1st edition to present)
- **Gases Under Pressure**
  - Compressed gas (1st edition to present)
  - Liquefied gas (1st edition to present)
  - Refrigerated liquefied gas (1st edition to present)
  - Dissolved gas (1st edition to present)
- **Flammable Liquids**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)

- Category 3 (1st edition to present)
- Category 4 (1st edition to present)

- **Flammable Solids**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)
- **Self-reactive substances and mixtures**
  - Type A (1st edition to present)
  - Type B (1st edition to present)
  - Type C (1st edition to present)
  - Type D (1st edition to present)
  - Type E (1st edition to present)
  - Type F (1st edition to present)
  - Type G (1st edition to present)
- **Pyrophoric liquids**
  - Category 1 (1st edition to present)
- **Pyrophoric solids**
  - Category 1 (1st edition to present)
- **Self-heating substances and mixtures**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)
- **Substances and mixtures which, in contact with water, emit flammable gases**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)
  - Category 3 (1st edition to present)
- **Oxidizing liquids**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)
  - Category 3 (1st edition to present)
- **Oxidizing solids**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)
  - Category 3 (1st edition to present)
- **Organic peroxides**
  - Type A (1st edition to present)
  - Type B (1st edition to present)
  - Type C (1st edition to present)
  - Type D (1st edition to present)
  - Type E (1st edition to present)
  - Type F (1st edition to present)
  - Type G (1st edition to present)
- **Corrosive to metals**
  - Category 1 (1st edition to present)

- **Desensitized explosives**
  - Category 1 (GHS Rev.6 to present)
  - Category 2 (GHS Rev.6 to present)
  - Category 3 (GHS Rev.6 to present)
  - Category 4 (GHS Rev.6 to present)

Health Hazard Classes

- **Acute toxicity**
  - ***Oral***
    - Category 1 (1st edition to present)
    - Category 2 (1st edition to present)
    - Category 3 (1st edition to present)
    - Category 4 (1st edition to present)
    - Category 5 (1st edition to present)
  - ***Dermal***
    - Category 1 (1st edition to present)
    - Category 2 (1st edition to present)
    - Category 3 (1st edition to present)
    - Category 4 (1st edition to present)
    - Category 5 (1st edition to present)
  - ***Inhalation***
    - Category 1 (1st edition to present)
    - Category 2 (1st edition to present)
    - Category 3 (1st edition to present)
    - Category 4 (1st edition to present)
    - Category 5 (1st edition to present)
- **Skin corrosion/irritation**
  - Category 1 (1st edition to present)
    - Sub-category 1A (1st edition to present)
    - Sub-category 1B (1st edition to present)
    - Sub-category 1C (1st edition to present)
  - Category 2 (1st edition to present)
  - Category 3 (1st edition to present)
- **Serious eye damage/eye irritation**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to GHS Rev.4)
  - Category 2A (1st edition to GHS Rev.4)
  - Category 2/2A (GHS Rev.5 to present)
  - Category 2B (1st edition to present)
- **Respiratory sensitization**
  - Category 1 (1st edition to present)
    - Sub-category 1A (GHS Rev.3 to present)
    - Sub-category 1B (GHS Rev.3 to present)

- **Skin sensitization**
  - Category 1 (1st edition to present)
    - Sub-category 1A (GHS Rev.3 to present)
    - Sub-category 1B (GHS Rev.3 to present)
- **Germ cell mutagenicity**
  - Category 1 (1st edition to present)
    - Category 1A (1st edition to present)
    - Category 1B (1st edition to present)
  - Category 2 (1st edition to present)
- **Carcinogenicity**
  - Category 1 (1st edition to present)
    - Category 1A (1st edition to present)
    - Category 1B (1st edition to present)
  - Category 2 (1st edition to present)
- **Reproductive toxicity**
  - Category 1 (1st edition to present)
    - Category 1A (1st edition to present)
    - Category 1B (1st edition to present
  - Category 2 (1st edition to present)
  - Effects on or via lactation (1st edition to present)
- **Specific target organ toxicity – single exposure**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)
  - Category 3 (GHS Rev.1 to present)
- **Specific target organ toxicity – repeated exposure**
  - Category 1 (1st edition to present)
  - Category 2 (1st edition to present)
- **Aspiration hazard**
  - Category 1 (GHS Rev.1 to present)
  - Category 2 (GHS Rev.1 to present)

Environmental Hazard Classes

- **Hazardous to the aquatic environment**
  - Category Acute 1 (1st edition to present)
  - Category Acute 2 (1st edition to present)
  - Category Acute 3 (1st edition to present)
  - Category Chronic 1 (1st edition to present)
  - Category Chronic 2 (1st edition to present)
  - Category Chronic 3 (1st edition to present)
  - Category Chronic 4 (1st edition to present)
- **Hazardous to the ozone layer**
  - Category 1 (GHS Rev.3 to present)