

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**

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Item 3 (g) of the provisional agenda

Classification criteria and related hazard communication: nanomaterials

Status of the work of the nanomaterials informal working group

**Transmitted by the expert from France on behalf of the informal
working group**

Introduction

1. This informal paper provides an update on the relevant works identified by the informal working group on the applicability of the GHS for nanomaterials.

Action requested from the Sub-Committee

2. The Sub-Committee is invited to take note and comment on the status of the work.
3. The correspondence group invites the Sub-Committee to keep the item on reviewing the applicability of the GHS classification criteria to nanomaterials in its programme of work for 2019-2020.

Background

4. For the current biennium, the work programme regarding nanomaterials had the following scope:

- (a) monitoring work concerning classification related issues regarding nanoform materials by other bodies, including the OECD Working party on Manufactured Nanomaterials and other relevant research projects on nanomaterials (worldwide);
- (b) discuss which findings are relevant from the viewpoint of classification;
- (c) develop a plan how to continue this work after the coming biennium.

(UN/SCEGHS/32/INF.27;

<https://www.unece.org/fileadmin/DAM/trans/doc/2016/dgac10c4/UN-SCEGHS-32-INF27.pdf>)

Status report

5. Regarding this work programme, the Sub-Committee is informed of some recent developments relevant for the scope of the GHS work on nanomaterials:

6. Several projects specific for nanomaterials are ongoing in the OECD Test Guidelines Programme. You can find an overview of the Test Guidelines Programme from the OECD website. You can also contact your national co-ordinator to learn more about the Test Guideline activities in your country. The development of Test Guidelines (TGs) is overseen by the Working Group of National Co-ordinators of the TGs programme (WNT). The WNT work plan for the OECD test guidelines programme is available at: http://www.oecd.org/chemicalsafety/testing/TGP%20work%20plan_September%202018.pdf

7. The OECD has recently published three updated test guidelines or guidance documents, which have included revisions to accommodate the testing of nanomaterials:

- OECD Test Guideline 412: 28 days (Subacute) Inhalation Toxicity Study (2018)
- OECD Test Guideline 413: 90 days (Subchronic) Inhalation Toxicity Study (2018)
- OECD GD no 39: Guidance document on inhalation toxicity studies (2018)

8. In addition, the following new TG has been published which specifically addresses testing of nanomaterials:

- OECD Test Guideline 318: Dispersion Stability of Nanomaterials in Simulated Environmental Media (2017)

9. The OECD Working Party on Manufactured Nanomaterials (WPMN) has also published a series of guidance documents which are available at: <http://www.oecd.org/env/ehs/nanosafety/publications-series-safety-manufactured-nanomaterials.htm>

- The document No. 87 (Developments in Delegations on the Safety of Manufactured Nanomaterials - Tour de Table, 2018) compiles information, provided by delegations, on the occasion of the 18th WPMN meeting (February 2018), on current developments on the safety of manufactured nanomaterials. It aims to summarise relevant information on activities related to manufactured nanomaterials, as well as other activities on nanotechnologies at the international level.

10. An OECD TG proposal on the Dustiness of Manufactured Nanomaterials has been submitted by France and Denmark to assess the capability of the dustiness tests to address both physical hazards (flammability, dust explosion hazard) and workplace exposure (2018). The importance of considering physical hazards has also been highlighted by France during a former session of the UNSCEGHS (see paragraphs 24-26 of ST/SG/AC.10/C.4/60) and in an OECD joint meeting. First results on the potential concerns when implementing the tests related to physical hazards on nanomaterials were also presented by INERIS at NANOSAFE 2018 congress. Links:

- <http://www.nanoreg2.eu/oecd-joint-meeting-sept-12-13>
- <http://www.cea.fr/cea-tech/pns/nanosafe/en/Pages/Nanosafe%20Conference/Nanosafe%202018/After%20the%20Conference/Oral-Presentations.aspx>

11. In order to directly test the applicability of the existing GHS criteria to nanomaterials using available data, a project on 'The applicability of the GHS classification criteria to nanomaterials' is currently ongoing. The project is conducted under the Nordic Chemical Group (a working group operating under the auspices of the Nordic Council of Ministers). The aims of the project are to i) evaluate data from the OECD/WPMN dossiers and other sources (e.g. the NanoReg project, the NanoSafety Cluster project and REACH registrations) for four selected nanomaterials (Single-Walled Carbon Nanotubes, Zinc oxide, Silicon dioxide and Silver), ii) to assess the (non-)applicability of the current GHS classification criteria for the data and to iii) discuss whether the criteria for classification are fulfilled for the specific human health hazard classes. The scope of the project is to support the work of the GHS Sub-committee with regard to making review of the applicability of the GHS classification criteria to manufactured nanomaterials. The findings from this project are planned to be assessed and reported to the GHS Sub-Committee in 2019.

12. In addition, in order to build a broader base of contributors and to take advantage of available expertise, the classification of nanomaterials (in the context of the UN GHS and the European Union CLP regulation) has been discussed at meetings of the Nanomaterials Expert Group of the European Chemicals Agency. The minutes of these meetings (NMEG-8, NMEG-9, NMEG-10, NMEG-11) are available at: <https://echa.europa.eu/fi/regulations/nanomaterials/nanomaterials-expert-group>
