

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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PROGRAMME OF WORK FOR THE BIENNIUM 2009-2010

Nanomaterials

Submitted by the expert from France

Introduction

1. Chemical substances manufactured at a nanoscale are an actual breakthrough in chemistry. Such substances may have new properties regarding the same chemical composition at another scale (conventional form) or between different nanoforms with high level of innovation. For instance, the different properties of nanotubes, e.g carbon nanotubes or the specific reactivity of gold nanoparticles, are going to be well known.

2. But the current scientific literature highlights some concerns about nanomaterials, especially on health and environmental issues. Indeed, the new properties of these forms of substances may carry new potential hazards due to the nanometric scale, in particular new surface chemical reactivity according to the size of the particles and their granulometric distribution. Therefore, it might not be relevant to keep the hazard classification provided for conventional forms. Expert judgement may be required to determine if a new hazard assessment has to be performed to communicate the appropriate hazards and to allow adequate downstream management of risks for health and /or the environment. For hazardous substances, other hazards may appear and for non hazardous substances, it might be possible to classify as hazardous the same chemical substance when produced at a nanoscale.

International context for nanomaterials

3. Some international programmes have taken this issue into account in their domain of activity. A worldwide politic using the “prevention principle” is going to be designed within SAICM. In the scopes of the ISO TC 229 about nanotechnologies and the OECD's Working Party on Manufactured Nanomaterials, for instance, some work is already ongoing in order to

correctly characterise and identify these nanomaterials, and to achieve appropriate hazard and risk assessments such as: definitions, physical/chemical specifications and adaptations with respect to specific information requirements for test methods.

Proposal

4. The expert from France suggests to add a new work item in the program of work for the next biennium (2009-2010) consisting in discussing and verifying how substances manufactured at nanoscale are covered by GHS and if it is sufficient that way. This may include classification issues, hazard communication only or both.

5. If the Sub-Committee agrees to do so, the expert from France would be able to propose a formal document considering the main issues relating to nanomaterials and GHS and possible ways forward to work on these issues.

6. On the basis of this document, the Sub-Committee may wish to decide to have this issue deal with by one of its focal points or accept the offer by the expert from France to organize an informal working group on this subject.
