Nanotechnology
Industries Association

NIA Comments on

Report on issues related to waste containing nanomaterials and options for further work under the Basel Convention

24 January 2019, Brussels

Introduction and background

The Nanotechnology Industries Association (NIA) welcomes the opportunity to provide comments on the United Nations 'Report on issues related to waste containing nanomaterials and options for further work under the Basel Convention' (UNEP/CHW/OEWG.11/INF/24) dated 24 August 2018.

At its 11th meeting in Geneva 3-6 September of the Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal a report ''Report on issues related to waste containing nanomaterials and options for further work under the Basel Convention' (UNEP/CHW/OEWG.11/INF/24) was discussed. In its decision (OEWG.11/10 Waste Containing Nanomaterials), the OEWG (Open-Ended Working Group):

- welcomes the report on issues related to waste containing nanomaterials and options for further work;
- invites parties and others to submit comments on the report by **31 January 2019**; and
- requests the Secretariat compile the comments received, for consideration by COP14.

NIA General Comments

The report is comprehensive and provide an overview of the current aspects of waste containing nanomaterial (WCNM). However, NIA would like to point out that a number of the issues presented, are not different from conventional non-nano waste materials and are thus not nanospecific in nature. Further, waste containing nanomaterials (WCNM) is not necessarily hazardous, and would therefore not fall under the Basel Convention in the first place. However, should a WCNM be considered hazardous, it would, of course, fall under the Convention.

It should be recalled that nanotechnologies and nanomaterials are actively being developed to reduce, mediate, or mitigate environmental impact or reduce resources required to manufacture products. Nanotechnology and nanomaterials are not hazardous per se, and just as any conventional materials, some may be hazardous, and some may not. The push to utilise green nanotechnologies can in many instances mitigate waste issues in the first place.

To put the issue in perspective it should also be noted that the largest origin of nanomaterials is not manmade but originate from natural resources.

NIA Specific Comments

Paragraphs 7-9 (p3)

The ISO and the EC examples of definitions are appropriate, but a discussion on the difficulties of their implementation is largely not present. E.g. a rigid interpretation of the ISO definition '…or having and internal structure or surface structure in the nanoscale…' would define most materials as nanomaterials as they would have a nanostructure.

The report can be updated with the recent EU Regulation EU 2018/1881, where a legal definition in the EU is now incorporated in Annex VI of the REACH Regulation.

Paragraph 12 (p4)
The phrase '…in theory designed to have any desired property.' is rather speculative and it is suggested to be removed.

Paragraph 24 (p6)
It is appropriate that the report only deals with waste containing ENM (engineered nanomaterials). However, it should also be recalled that e.g. incineration may create incidental nanomaterials (i.e. not ENM), and that the largest amounts of nanomaterials are produced from natural processes (i.e. natural nanomaterials).

Paragraph 25 (p6)
It is noted that manufacturing waste of nanomaterials is often reused in the manufacturing process, as a way to optimise resource utilisation.

Paragraph 27 (p6)
The argument that labelling of waste would allow for estimations of quantities of WCNM generated per se is not nanospecific. Labelling would be equally applicable for conventional substances. However, the practical implementation of labelling would be extremely difficult, and would not be proportionate nor feasible in practice.

Paragraph 33 (p8)
Occupational hazards of waste can already today be managed with appropriate risk management procedures applicable for fine/ultrafine dust.

Paragraph 50 (p10)
One could argue that a nanomaterial that is transformed has changed from its original form, and thus, their original nature is destroyed.

Paragraph 63 (p12)
The example of biocidal effects is not nanospecific per se and would be expected to be present also for non-nano biocides.

Paragraph 84 (p15)
It is not correct to state that 'relatively few activities have so far been undertaken' as the issue have been considered in many legislations, as well as in numerous research projects globally.

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A. Classification

NIA is of the view that a general classification for WCNM is not appropriate following the classification scheme for hazardous waste, and thus a dedicated hazard class for nanomaterials can not be supported. However, WCNM classified as hazardous and retain their hazardous properties as waste would fall under the Basel Convention.

B. Information needed to develop strategies

NIA is in general supportive of information gathering strategies and encourage activities in the area. However, it should be noted that the environmentally sound management (ESM) of non-nanoform waste is already applicable, or can be adapted where necessary, to cover WCNM.

C. Minimizing exposure

The report outlines that available technologies are appropriate to reduce exposure, and it has also been shown that personal protective equipment protective for conventional chemicals are also appropriate for nanomaterials. Thus, risk management measures for occupational exposures should be addressed under existing schemes.

D. Awareness rising

Awareness rising is an important issue that should be actively pursued by all involved parties. However, it should also be recalled that not all the issues raised in the report are nanospecific but are equally applicable to non-nano waste. This should also be seen in a larger context, where waste management is an increasing global issue.

Editorial comments

The report is filled with vague wording such as ‘could’, ‘may become’, ‘may be release’ which in the way they are used often seem to indicate that something negative would happen. Rephrasing to a more neutral tone should be considered.

It is suggested to explain the abbreviation ENM at its first use.

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The NIA, Nanotechnology Industries Association, is the sector-independent, responsible voice for the industrial nanotechnologies supply chains; it proactively supports the ongoing innovation and commercialisation of nanotechnologies and promotes their safe and reliable advancement.

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