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NanoSafety Group Newsletter Issue 7, March 2018

Hi everyone,

Welcome to the first newsletter for the NanoSafety group in 2018! I hope you had a lovely break and a fantastic year ahead.

The AUSA conference is held in Newcastle this year from 26th June to 28th June. The theme is “From the Old to the New – Health and Safety Challenges”. Call for Abstracts closes on 31 March 2018.

This theme is in line with our group interest in the health and safety management challenges on engineered nanomaterials. I would encourage group members to present a paper on this topic if you have local examples or any good system to share with others. I have submitted a paper to discuss the recent publication of WHO Guidelines (see below).

You may notice the newsletter is now on an email template. This is aimed to assist group members to find information easily. I will also upload it onto the group portal if you need to access it in future.

It is a busy start of the year for many of us and I hope this newsletter will be of interest.

Kind Regards

Xin Li *assisted by Julie Hitchens and Maria Somodevilla Torres*
Chair
AUSA NanoSafety Special Interest Group

WHO Guidelines

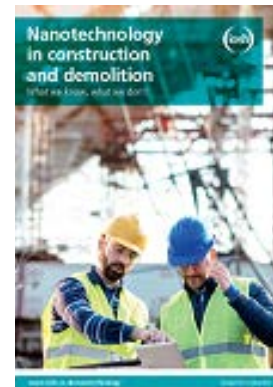
World Health Organisation has recently published its 'Guidelines on Protecting Workers from Potential Risks on Manufactured Nanomaterials'. This publication focused on the occupational exposure and health risks of the engineered nanomaterials. Section 6 will be of interest for WHS professionals as this section focuses on risk assessment and controls. Annex 1 is a list of proposed occupational exposure limits (OELs). You can [download the guidelines here](#).

ENMs in Construction and Demolition

IOSH (UK) published a guidance document on engineered nanomaterials in the built environment.

While this is generally not related to the University sector, your infrastructure teams may be able to benefit from some aspects of the reports.

[Read more ...](#)



Particle release and control of worker exposure during laboratory-scale synthesis, handling and simulated spills of manufactured nanomaterials in fume hoods

This is a newly published research study on the release of nanoparticles during laboratory scale synthesis with a simulated spill. The study found that the current fume cupboard can effectively control the release of engineered nanomaterials (ENMs) and adequate sash height and face velocity prevents 98.3% of particles release into the surrounding environment. This is an interesting finding and may be especially useful for Higher Education WHS professionals when risk assessing these activities to protect workers from potential exposure.

However, it should be noted that this study did not test the nanoparticle content inside the fume cupboard duct and this may pose other hazards for maintenance workers.

To access the article, [click here and login](#).

Nanotoxicology: Experimental and Computational Perspectives

A relatively new book published in November 2017 on nanotoxicology. Although the book is generally about scientific aspects on the nanotoxicology, Chapter 9 discusses the progress of risk assessment of ENMs.



If you are interested in reading the book, [access here](#).

Printing and Nanomaterials – What has been studied?

There have been some research studies showing that engineered nanomaterials can be emitted during normal printing activities. Read these articles for more information...

- [Unexpected reactions during printing could have health implications](#)
- [Synergistic effects of engineered nanoparticles and organics released from laser printers using nano-enabled toners: potential health implications from exposures to the emitted organic aerosol](#)

Besides conventional printing activities, the emerging 3D printing activities have been shown to have emissions of nano-scaled materials. [This article](#) may be of interest and it included an exposure assessment of nanomaterials emitted by 3D printing activities.

ENM risk assessment – a new approach

This approach has been published in 2017, aiming to establish a cross-industrial sector risk management framework for engineered nanomaterials. The framework provided is conceptually applicable across many workplaces. There has been no study on its effectiveness nor implementation strategy on this framework. [Read more ...](#)

Contribution to the e-Newsletter

All members are encouraged to contribute to the newsletter. If you have topics, experience, news or available positions to share with other members, please email them to xin.li@adelaide.edu.au for inclusion in the next newsletter.