

NEW ZEALAND

Highlight of developments since the 3rd meeting of the WPMN

- Funding decisions will be announced by July that are likely to include support for one or more research projects that investigate aspects of risks associated with manufactured nanomaterials.
- Environmental Risk Management Authority (ERMA) Emerging Technology Conference in May 2008.

Work completed, underway or planned

1. Any national regulatory developments on human health and environmental safety including recommendations or discussions related to adapting existing regulatory systems or the drafting of laws/ regulations/ guidance materials

It has been established that if a nanomaterial has a known hazard or risk, there are regulatory systems in place in New Zealand that can regulate, eliminate or manage this hazard or risk. Depending on the circumstance in how the nanomaterials is used or poses a threat, a nanomaterial would be regulated under:

- the Hazardous Substances and New Organisms (HSNO) Act 1996 by the Environmental Risk Management Authority (ERMA);
- the Health and Safety in Employment (HSE) Act 1992 by the Department of Labour;
- the Food Act 1981, via the NZ (Maximum Residue Limits of Agricultural Compounds) Food Standards 2008¹, and the Australia New Zealand Food Standards Code², by the NZ Food Safety Authority.

The legislation in the above Acts is sufficiently broad enough to include manufactured nanomaterials and covers the majority of the potential exposure pathways of manufactured nanomaterials.

ERMA intends to establish a formal position on the regulation of nanomaterials under the HSNO Act. Specific data requirements for the risk assessment of nanomaterials will be developed which will take into account international harmonisation efforts on regulatory requirements for nanomaterials.

Further information on the HSNO Act and ERMA is available from:

- <http://www.mfe.govt.nz/issues/hazardous/>
- <http://www.ermanz.govt.nz/index.html>

2. Developments related to voluntary or stewardship schemes

There are currently no voluntary or stewardship schemes.

¹ <http://www.nzfsa.govt.nz/policy-law/legislation/food-standards/nz-mrl-fs-2008-consolidation.pdf>

² <http://www.foodstandards.gov.au/the-code/foodstandardscode.cfm>

3. Information on any risk assessment decisions

ERMA has not received any applications to import or manufacture a hazardous substance that contains manufactured nanomaterials. There have not been any applications to allow residues of nanomaterials in foods.

4. Information on any developments related to good practice documents

Cosmetics containing nanoparticles (other than zinc oxide or titanium dioxide³) must be notified to ERMA as a condition of the Cosmetic Products Group Standard⁴. The purpose of this provision is to provide information to inform technical review of such substances in the future, so that if necessary, the group standard can be amended to put in place controls relating to such substances. To date no notifications have been received from importers or manufacturers of cosmetics.

“Nanoparticle” is defined in the group standard as “a particle having three dimensions in the nanoscale and a diameter of less than 100 nanometres”. This is an interim definition that can be readily revised when international consensus on definitions emerges.

5. Research programmes or strategies designed to address human health and/ or environmental safety aspects of nanomaterials

Research investment decisions for 2008/2009 are currently being finalised. At least one project has been funded that will investigate environmental fate and impacts of some manufactured nanomaterials (plant uptake of quantum dots and the flow on effects to other flora and fauna).

The MacDiarmid Institute for Advanced Materials and Nanotechnology⁵, a New Zealand Centre of Research Excellence, received renewed funding for a further six years commencing in July 2008. They have introduced a new research theme with this new funding that will look at biological applications and implications of nanotechnologies, so has the potential to investigate risk-related issues.

A New Zealand company (Australo Ltd⁶) is developing a technology platform that offers a portable, robust and cheap tool for rapid particle detection at the nanoscale. The platform has potential for significant environmental applications and the company is engaged in several research collaborations with universities and science/technology companies in New Zealand and overseas to demonstrate proof of concept for a range of applications.

³ The provision has not been applied to nanoparticles containing zinc oxide and titanium dioxide on the basis of a review by the Australian Therapeutic Goods Administration (TGA) which concluded that there was no cause for health concern at this time.

⁴ <http://www.ermanz.govt.nz/appfiles/orgctrl/pdf/HSR002552Con.pdf>

⁵ <http://www.macdiarmid.ac.nz>

⁶ <http://www.australo.com/>

6. Information on any public/ stakeholder consultation

No public/stakeholder consultation has been conducted on the safety of nanomaterials; however an Emerging Technology Conference hosted by the Environmental Risk Management Authority in May (involving researchers, policy makers and members of the New Zealand Maori community) provided a forum for useful discussions of risk and regulatory issues of nanotechnologies.

Additional Information

The Ministry of Research, Science and Technology (MoRST) is continuing to run a scanning network that identifies emerging science trends and developments⁷. Nanotechnology is an area of active interest.

A nanotechnology regulatory subgroup is being established out of the Science and Technology Officials Group that MoRST has been convening. This will have representatives from relevant policy and regulatory agencies, as well as other interested organisations, and will coordinate nanotech regulatory and related activities across government.

The Bioethics Council will continue to investigate the cultural, ethical and spiritual implications of nanotechnology as part of their “future watch” function.

⁷ <http://www.morst.govt.nz/current-work/futurewatch/>