OECD WORK ON CHEMICALS AND MANUFACTURED NANOMATERIALS
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OECD’s Work on Environment, Health and Safety

Objectives

Protect man and environment

Harmonized policies and instruments of high quality

Efficiency

Work sharing; avoid duplication; avoid non-tariff trade barriers; shorten time to market
OECD Council Decision on Mutual Acceptance of Data in an Assessment of Chemicals C(81)30(Final)

“Data generated in the testing of chemicals in an OECD Member country in accordance with OECD Test Guidelines and OECD Principles of Good Laboratory Practice shall be accepted in other Member countries for purposes of assessment and other uses relating to the protection of man and the environment.”

Non-OECD members that are adherent to MAD: Argentina, Brazil, India, Malaysia, Singapore, South Africa

Thailand is a provisional adherent
Mutual Acceptance of Data (MAD)

Test Guidelines

→ A single quality standard should be applied for testing of all chemical substances

Good Laboratory Practice

→ Legally binding on OECD Member countries and MAD Adherents

Mutual Acceptance of Data

→ Avoids duplication of testing: around Euros 150 million saved each year
→ Reduces use of animals
→ Reduces trade barriers

A single quality standard for test facilities throughout OECD
OECD Programme on Nanosafety

The programme concentrates on human health and environmental safety implications of manufactured nanomaterials (limited mainly to the chemicals sector).

To ensure that the approach to hazard, exposure and risk assessment is of a high, science-based, and internationally harmonised standard.
OECD COUNCIL RECOMMENDATION ON NANO

• **Regulatory Frameworks are valid** (might need to be adapted)
• Members, in the testing of manufactured nanomaterials, **apply the OECD Test Guidelines**, adapted as appropriate to take into account the specific properties of manufactured nanomaterials;
• It is **open to non-OECD countries**
OECD’s Areas of Work on Nano

- Testing and Assessment
- Risk Assessment and Regulatory Framework
- Exposure Measurement and Mitigation
- Env. Sustainable Use of MN
Exposure Measurement and Mitigation – Relevant Publications

• Preliminary Analysis of Exposure Measurement and Exposure Mitigation in Occupational Settings: Manufactured Nanomaterials (2009)
• Identification, Compilation and Analysis of Guidance Information for Exposure Measurement and Exposure Mitigation: Manufactured Nanomaterials (2009)
• Emission Assessment for Identification of Sources and Release of Airborne Manufactured Nanomaterials in the Workplace: Compilation of Existing Guidance (2009)
• Comparison of Guidance on Selection of Skin Protective Equipment and Respirators for Use in the Workplace: Manufactured Nanomaterials (2009)
• Report of an OECD Workshop on Exposure Assessment and Exposure Mitigation: Manufactured Nanomaterials (2009)
• Compilation and Comparison of Guidelines Related to Exposure to Nanomaterials in Laboratories (2010)
Exposure Measurement and Mitigation: Upcoming publications

- Available Methods and Models for Assessing Exposure to MNs
- Exposure Assessment of Nano-silver: Case Study
- Harmonized Tiered Approach to Measure and Assess the Potential Exposure to Airborne Emissions of Engineered Nano-Objects and their Agglomerates and Aggregates (NOAA) at Workplaces
Exposure Measurement and Mitigation: Focusing on Env. & Consumers

• **Survey on consumer and environmental exposure (Underway)**

• **Work completed**:  
  – **OECD** Workshop on Nanomaterial Exposure Assessment (3 June 2015) on the occasion of the 31st International Congress on Occupational Safety
Risk Assessment and Regulatory Framework

- To identify uncertainties in risk assessment when extrapolating from conventional chemical frameworks to manufactured nanomaterials [see ENV/JM/MONO(2012)8]


- To inform the gaps identified:
  - Directly informs on short-term needs to address ongoing risk assessments of MN and focuses medium and long-term priorities
  - Projects provide guidance on what risk assessors can do now and provide insights into what needs to be done for the ideal approach
Risk Assessment and Regulatory Frameworks


- The questionnaire examines:
  - regulatory updates from jurisdictions;
  - definitions for nanomaterials; and
  - challenges jurisdictions are facing with respect to regulating nanomaterials in their respective countries.
The report emphasises the importance of:

- The policies to support research in the environmental, health and safety risks, as well as those to support the commercialisation of nanotechnology research results, for fostering responsible innovation in the tyre sector;
- Using available tools (e.g. cost/benefit analysis, LCA) to gain better insight into the socio-economic and environmental impacts of nanotechnology applications;
- Collaboration between governments and industry to address the specific challenges raised by the introduction of new nanomaterials in different industry sectors.
OECD Paper on *Nano and Waste treatment operations*:

1. Incineration
2. Recycling
3. waste water treatment
4. landfilling

*To be published at the end of 2015!*
Contact / Information/ Publications

OECD Secretariat
nanosafety@oecd.org

Peter.kearns@oecd.org
mar.gonzalez@oecd.org

OECD Secretariat

Publications free to download
www.oecd.org/env/nanosafety