

**NanoSafety
Cluster**



WG2 Hazard Identification

Chairs:

Flemming Cassee

Teresa Fernandes



120 members → small percentage active participation

Focus groups and tasks

- Information exchange of methods available within the Cluster
 - Harmonised methods/requirements for biokinetic investigation
 - Create summaries of key results for further use by the dissemination group
 - Immunosafety focus group
 - Marine Ecotox focus group
 - Reprotoxicology focus group
 - Genotoxicity Focus group
- } eco-immunosafety

Inactive: biomembrane interactions:

Protocol Database



www.nanosafetycluster.eu/working-groups/2-hazard-wg/protocols.html

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NanoSafety Cluster

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1. Materials WG

2. Hazard WG

- WG2 Hazard meetings and events
- Information exchange
- Harmonised methods
- Summaries of key results
- Upcoming meetings
- Immunosafety Focus group
- Marine Ecotox Focus group
- Biomembrane Focus group
- Genotoxicity Focus group
- Protocol Database

Protocols

Define groupings and calculations

Category:	Other Category:	1. Name(s) of scientific protocol:	2. Scope and Domain:	3. Principle of the scientific proto
(All)	(All)	(All)	(All)	(All)
Biokinetics	0	1	2	
Eco-nanotoxicology				
Eco-nanotoxicology				

Lacks new input!

www.nanosafetycluster.eu/working-groups/2-hazard-wg/marine-ecotox.html

Marine Ecotox Focus...ppt
Mislukt - Downloadfout

Alle downloads weergeven...

Convergence PDC Microsoft Win... Microsoft Win... EU NanoSafety ... Microsoft Pow... EN 11:28

WIKI (of a Vicki)



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NSC WG2-Hazard Wiki

This WIKI to facilitate sharing knowledge on the hazard assessment obtained in primarily FP7 projects. This includes outcomes that contribute to answer specific questions on the hazard of nanomaterials and also do's and don't's during experiments, sharing protocols. To add your information you should register (as WG2 Hazard[1] member) via [2] or contact Flemming Cassee or Teresa Fernandez at [wg2chair@nanosafetycluster.eu]. Go to the nanosafety cluster website [3] for more information on this working group.

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Key messages from FP7 NanoSafety project: what have we learned?

Methods/requirements for kinetic investigation

Methods/requirements for appropriate toxicological endpoints

Methods/requirements for appropriate in vitro tests (e.g. cell lines)

Comparison in-vitro versus in-vivo results

Validation of appropriate testing methods including identification of limitations

Requirements for screening tests

Key metrics (metrology) for assessing the relationship between dose and hazard

Protocols

Lacks new input!

Recent activities



- ▶ Review reprotoxicology & (inhaled) nanosized particles and fibres
- ▶ Review effects on central nerve system of nanosized particles
- ▶ Collecting information for FP7 review

Upcoming



- ▶ Contribute to EU NanoSafety Cluster – Self evaluation
- ▶ Develop check list / best practices to guide study design

Check list (very draft!)

- ▶ Sample preparation → OECD or ISO
- ▶ In vitro human
 - **Dosimetry** ref to Teeugarden et al
 - **Metrology**: depends on hypotheses
 - **Dose**: suggest not to go higher than 100 ug/cm² and provide dose-response information
 - EC50 useful for RA
 - **Characterization** in media that is used
 - DLS may not be appropriate for bimodal or multi model distribution
 - What do you know about the **purity and contamination** including endotoxins including in the suspensions used for test systems.
 - Justify the **route of exposure**
 - Inclusion of positive and negative controls is to be preferred
 - e.g use silver ions when studying silver particles
 - Consider **benchmark or reference material** to allow comparison with other studies

Check list (very draft!)

- ▶ In vivo and human studies
- ▶ Ecotoxicology
 - Aquatic
 - Terrestrial

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<http://tinyurl.com/wg2hazard>



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