



# NANEX WP2 – Exposure Scenarios Summary

Please note this ES was not developed as part of a full risk assessment process, and may not necessarily describe exposure conditions for which there are no risks to human health and the environment

## Standard Exposure Scenario Format 3: For Service Life Of Substances In Articles (Handling By Worker)

<b>Title:</b>	Maintenance of physical vapor deposition (PVD) Reactor	<b>Date:</b>	23/07/2010
<b>SubstanceType</b>	Nano Ag	<b>Entered By:</b>	CEA

**Internal reference ID:**

**List of all use descriptors related to the life cycle stage and all the uses under it; include market sector (by PC) if relevant:**  
SU3, PROC21

### List of names of contributing exposure scenarios and corresponding PROCs/PCs

CES 1: Scratching inside the reactor to remove metal during the maintenance of the device

#### CES 1: Name of contributing exposure

Scratching inside the reactor to remove metal during the maintenance of the device

#### Further specification

Scraping with a scalpel from the inside of the reactors during maintenance operations

#### Product (article) characteristics

Ag, diverse size, > 150 nm

#### Amounts (contained in articles) present at workplace

? None estimated

#### Frequency and duration of use/exposure

3 times a week during half a day

#### Human factors not influenced by risk management

#### Other given operational conditions affecting workers exposure

dry process

#### Technical conditions and measures to prevent release (at source) from processing of articles

#### Technical conditions and measures to control dispersion from source towards the worker

vaccum used during the operation, SB class 1000

#### Organisational measures to prevent /limit releases, dispersion and exposure

operation in a clean room, class 1000. general extraction in the room

#### Conditions and measures related to personal protection, hygiene and health evaluation

clothing of antistatic material used for clean room, respiratory protection FFP3 mask, chemical resistant gloves

#### Conditions and measures at level of article production to prevent release during service life (#)

#### Additional good practice advice (for environment) beyond the REACH CSA

#### Exposure Estimation

scratching is a very emissive process (el<sub>pi</sub> > 1 000 000 p/cm<sup>3</sup> air) but vacuum very efficient, no emission in the room

### References

Ref Title: Data from Nano-Innov project  
Author:  
Journal:  
Ref Year:

Disclaimer: This ES was not developed as part of a full risk assessment process, and may not necessarily describe exposure conditions for which there are no risks to human health and the environment