



# 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 1: For Uses Of Substances By Workers

Title:	Production of printing inks	Date:	06/07/2010
SubstanceType	Ti O2	Entered By:	TNO

Internal reference ID: ES 2

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

SU 3; PC 18; PROC 9 or 26;

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

CES 1: Emptying bags in filling station (PROC 9 or 26)

#### CES 1: Name of contributing exposure

Emptying bags in filling station (PROC 9 or 26)

#### Further specification

#### Product characteristics

Powder, no dustiness result available  
100% product

#### Amounts used

40 kg (4 bags of 10 kg) per task

#### Frequency and duration of use/exposure

5 to 10 minutes per task. Frequency unknown

#### Human factors not influenced by risk management

not reported

#### Other given operational conditions affecting workers exposure

This task was carried out in an area called the penthouse which was separated by stairs from other production areas. Large room (> 100m<sup>3</sup>) with an open connection to the rest of the facility.

#### Technical conditions and measures at process level (source) to prevent release

LEV present at the filling station. Design of the filling station: only the front of the fillingstation is open.

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

not reported

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

not reported

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

Disposable RPE, gloves and coveralls were worn

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

not reported

#### Exposure Estimation

CPC: total particle concentration during activity was 16285#/cm<sup>3</sup> with corresponding non-activity period of 16509#/cm<sup>3</sup>. Second measurement result during activity was 10242#/cm<sup>3</sup> with corresponding non-activity period of 9756#/cm<sup>3</sup> during non-activity (AM)

## References

Ref Title: D2.2 Report of results and implications of main study to measure nanoparticle concentrations in workplaces - Part 1: Main summary  
Author: NANOSH  
Journal:  
Ref Year: 2010

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