





# LSRA 4 - Nanotechnology

## Lab Standard Risk Assessment 4: Nano technology

*If referencing this standard to cover your lab work, the scope of the work must match this standard and the below controls must be communicated and followed by all operatives. All lab work must be in accordance with the DLS chemical safety handbook.*

**Task Scope:** Any lab scale work with nano materials in any form.

<b>Persons at Risk</b>	Operatives	Lab Technicians	Others in lab and using the lab after the work is complete
<b>Exposure Routes</b>	Inhalation, Skin and eye contact, Ingestion		

<b>Hazards</b>				
	Flammable, pyrophoric, catalytic	Long term irreversible health effects	Irritant or harmful	Toxic effects
Nano materials safety and health effects vary from standard forms of the material and so the worst case must be assumed when controlling the hazards.				

### Control Measures

Minimise quantities used	Use the most appropriate form (avoid airborne releases) e.g. solutions or bulk solids	Experienced, skilled and knowledgeable operatives	Contain to minimise emissions, e.g. lidded containers	Clean down of equipment and containers by wet wiping and containment of washings.
Glove box or HEPA protected powder cabinet used	Use well characterised materials only	Labelled and sealed waste containers	Clean down work areas after. Wipe down with a damp cloth, then dispose in a sealed bag.	Remove and dispose of contaminated PPE in a sealed bag.

### Personal Protective Equipment

		
Safety glasses	Disposable gloves	Lab coat

### Emergency Arrangements

Small spills - Wipe with a wetted cloth and contain appropriately for disposal

Personal contamination – remove contaminated items and decontaminate as appropriate or dispose.

First Aid: contact EHCs (8787); eye contact – wash with eyewash; skin contact – wash with water

**Risk - Medium**