

## Safety Resources

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### Nanoparticle Safety

Nanoparticles are particles between 1 and 100 nanometres (nm) in size.

peta	P	10 <sup>15</sup>		1 000 000 000 000 000
tera	T	10 <sup>12</sup>		1 000 000 000 000
giga	G	10 <sup>9</sup>		1 000 000 000
mega	M	10 <sup>6</sup>		1 000 000
kilo	k	10 <sup>3</sup>		1 000
hecto	h	10 <sup>2</sup>		100
deka	da	10 <sup>1</sup>		10
<i>base unit</i>		10 <sup>0</sup>		1
deci	d	10 <sup>-1</sup>	1/10	0.1
centi	c	10 <sup>-2</sup>	1/100	0.01
milli	m	10 <sup>-3</sup>	1/1 000	0.001
micro	μ	10 <sup>-6</sup>	1/1 000 000	0.000 001
nano	n	10 <sup>-9</sup>	1/1 000 000 000	0.000 000 001
Ångström	Å	10 <sup>-10</sup>	1/10 000 000 000	0.000 000 000 1
pico	p	10 <sup>-12</sup>	1/1 000 000 000 000	0.000 000 000 001

The health effects associated with exposure to nanoparticles are not well understood and are subject to ongoing research. The hazards associated with exposure to nanoparticles include inhalation (most concerning), ingestion, skin contact, and potential for dust explosion.

### Training

A nanoparticle training session is available for individuals who will be using nanoparticles as part of their research. The training session provides a basic understanding of the potential hazards associated with the use and handling of nanoparticles .

To schedule a session, please contact [safetyresources@usask.ca](mailto:safetyresources@usask.ca).

### Requirements

To work with nanoparticles and / or nanomaterials on campus, you must:

- ▶ Complete safety training session
- ▶ Complete a reporting form
- ▶ Ensure usage of proper controls when handling nanoparticles
- ▶ Ensure proper transport and disposal methods are employed

Contact the [Safety Management System team](#).