

Nanomaterials Survey



Tiffany Skogstrom, MPH
Outreach & Chemical Policy Analyst
617-626-1086
tiffany.skogstrom@state.ma.us

Background Information



Written request from 13 environmental, occupational health, and public health organizations to review:

- ❧ Safe operation of facilities using nanomaterials
- ❧ Existence of water effluent testing
- ❧ Emergency response preparation for both facilities and first responders
- ❧ Policy Development

Gaps in Current Regulations

☞ Toxic Substances Control Act (TSCA)

- ☞ Solely regulates new & existing chemicals in commerce. For instance, TSCA does not capture nanomaterial data when a company moves from using a micrometer-sized material to nanometer-sized material.
- ☞ For existing chemicals, EPA issued a one-time reporting rule that went into effect on August 17, 2017. EPA has not yet collected enough information to be shared.

☞ The Food and Drug Administration (FDA), Consumer Products Safety Council (CSPC), and Occupational Safety and Health Administration (OSHA)

- ☞ Offer voluntary 'guidelines' for best practices, rather than regulations.

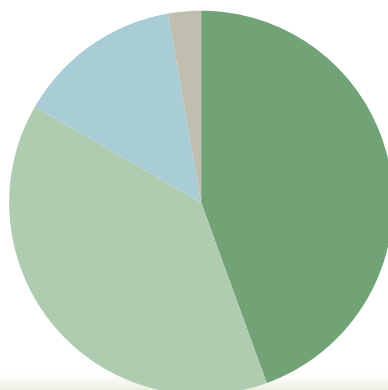
Purpose of The Survey

- ☞ Improve understanding of use / manufacturing in MA
- ☞ Glean knowledge of current best practices
- ☞ Glean knowledge of worker / environmental protections
- ☞ Gain understanding of disposal and control methods
- ☞ Offer OTA free & confidential services
- ☞ Develop industry contacts for future collaborations

Preliminary Results



36 Current Respondents



- 44 % Neither Manufacture Nor Use (n=16)
- 39% Use or Plan to Use (n=14)
- 14% Manufacture or Plan to Manufacture (n=5)
- 3% Manufactures in Egypt (n=1) - Removed from Further Analysis

User Demographics



Industries

- ❧ Coatings Manufacturer
- ❧ Chemicals
- ❧ Biomedical Research
- ❧ Research Hospital
- ❧ Semiconductor Manufacturer
- ❧ Academic Institution
- ❧ Pharmaceutical
- ❧ Higher Education
- ❧ Biological Research Institute

Products / Processes

- ❧ Coatings
- ❧ Surface Finishing Chemistry
- ❧ Test Drug Delivery Systems
- ❧ Nano Bio Sensors & Gas Sensors
- ❧ Research Processes for Engineering, Aerospace, Energy, & Electronics
- ❧ Biological Research

Use or Plan to Use



Of the 14 Respondents

14 Manufacture in MA

4 Use in Research & Development

Risk Management Plans

Yes	No	Unsure	No Response
5	3	1	5

Health & Safety Concerns

Yes	No	No Response
5	4	5

Manufacturer Demographics



Industries

- Pharmaceutical
- Military Defense
- Chemical Research & Development
- Nanomaterial

Products / Processes

- Lipid nanoparticles
- SEM/TEM Microscopy
- EDS
- Raman Spectroscopy
- NMR
- Industrial Research and Development
- Nanotubes for electrical and classified applications

Manufacture or Plan To Manufacture



Of the 5 Respondents:

☞ 5 Perform Research & Development Using Nanomaterials

☞ 4 Currently Manufacture in MA

☞ 1 Plans to Manufacture in MA

☞ Risk Management Plans

Yes	Unsure	No Response
2	1	2

☞ Health & Safety Concerns

Yes	No	No Response
1	2	2

Thank you!



Tiffany Skogstrom, MPH
 Outreach & Chemical Policy Analyst
 617-626-1086
tiffany.skogstrom@state.ma.us