CSHEMA
EHS LEADERSHIP IN HIGHER EDUCATION

Supplemental Information

CSHEMA Comment on
Docket EPA-HQ-OPPT-2020-0465 - EPA Methylene Chloride Rule

June 2025

Comparison of EPA and OSHA Laboratory Requirements

Requirements	EPA 40 CFR §751 Subpart B Methylene chloride regulation under TSCA	OSHA 29 CFR 1910.1450 Occupational exposure to hazardous chemicals in laboratories	Comparison
Written Program *facility or institution level*	✓	✓	WCPP limited to one chemical. CHP covers all chemicals.
Written Procedures *laboratory or area level*	✓	✓	Unique ECP required for all uses in every area. SOPs required for particularly hazardous chemicals.
Exposure Monitoring	✓	✓	Initial monitoring required. Monitoring required when AL or PEL is expected to be routinely exceeded.
Regulated Area	✓	✓	When expected to exceed the ECEL or STEL. Designated for particularly hazardous substances.
Methods of Compliance	✓	✓	Components of WCPP and maintaining ECPs. Components of the CHP – engineering controls are evaluated and adequately maintained.
Recordkeeping	✓	✓	ECP justification and rationale for controls.
Training	✓	✓	Required for every potentially exposed person. Required for employees working with substance.

CSHEMA Methylene Chloride Benchmarking Survey

- 98 institutions participated.
- Goals:
  - Analyze the impact of the rule on colleges and universities.
  - Benchmark exposure results, staffing, costs, and procedures across institutions.
  - Identify challenges and best practices.
  - Inform regulatory comments.

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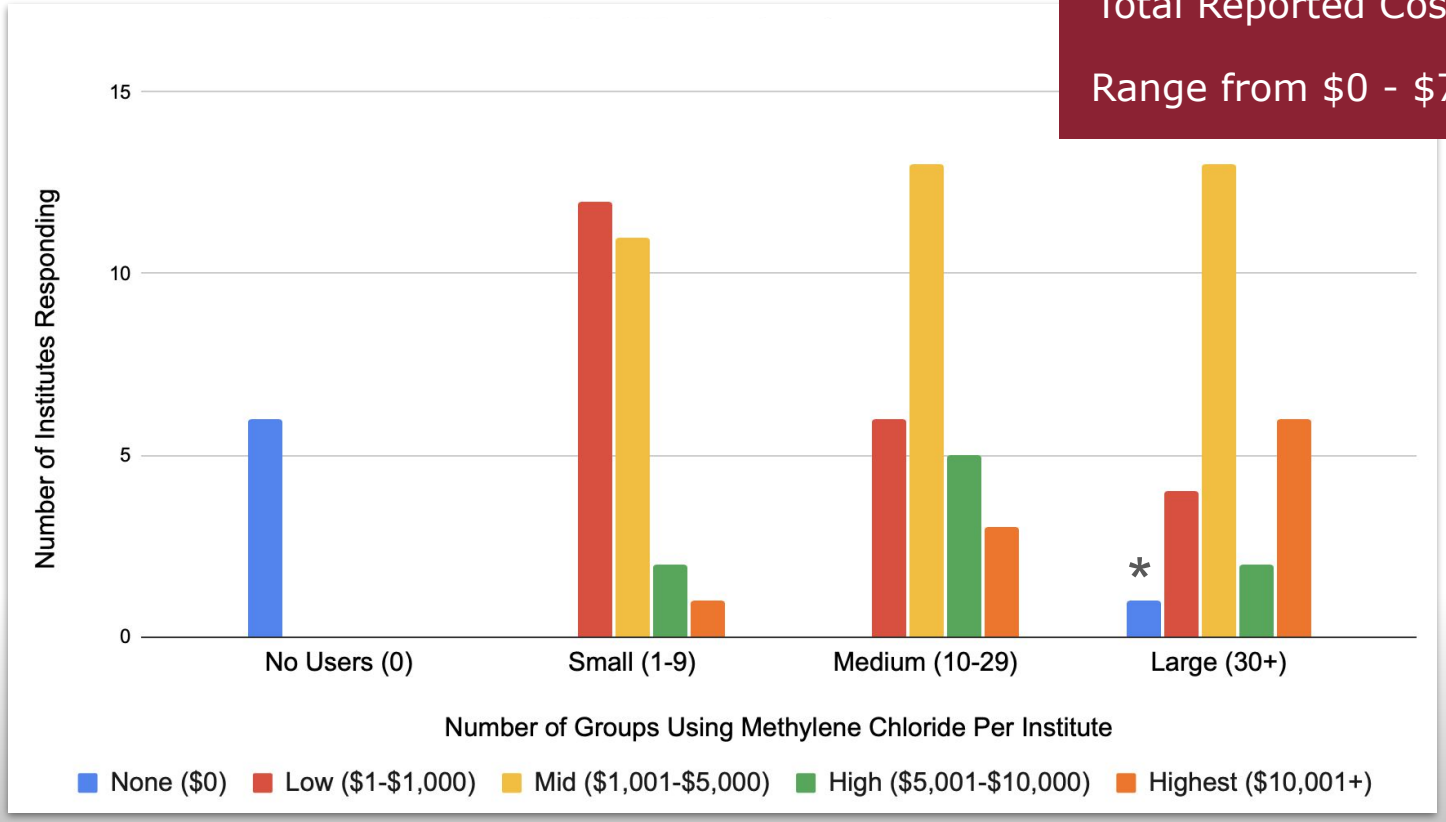
Estimated Cost of Exposure Monitoring By Number of Groups Using Methylene Chloride, as of June 13, 2025

Excludes staff hours.

Total Reported Costs (n=81): $434,722

Range from $0 - $70,000 per institution



Average Costs:

- Small: $3,115
- Medium: $5,733
- Large: $4,432

* Institution performed real-time monitoring using an existing FTIR.

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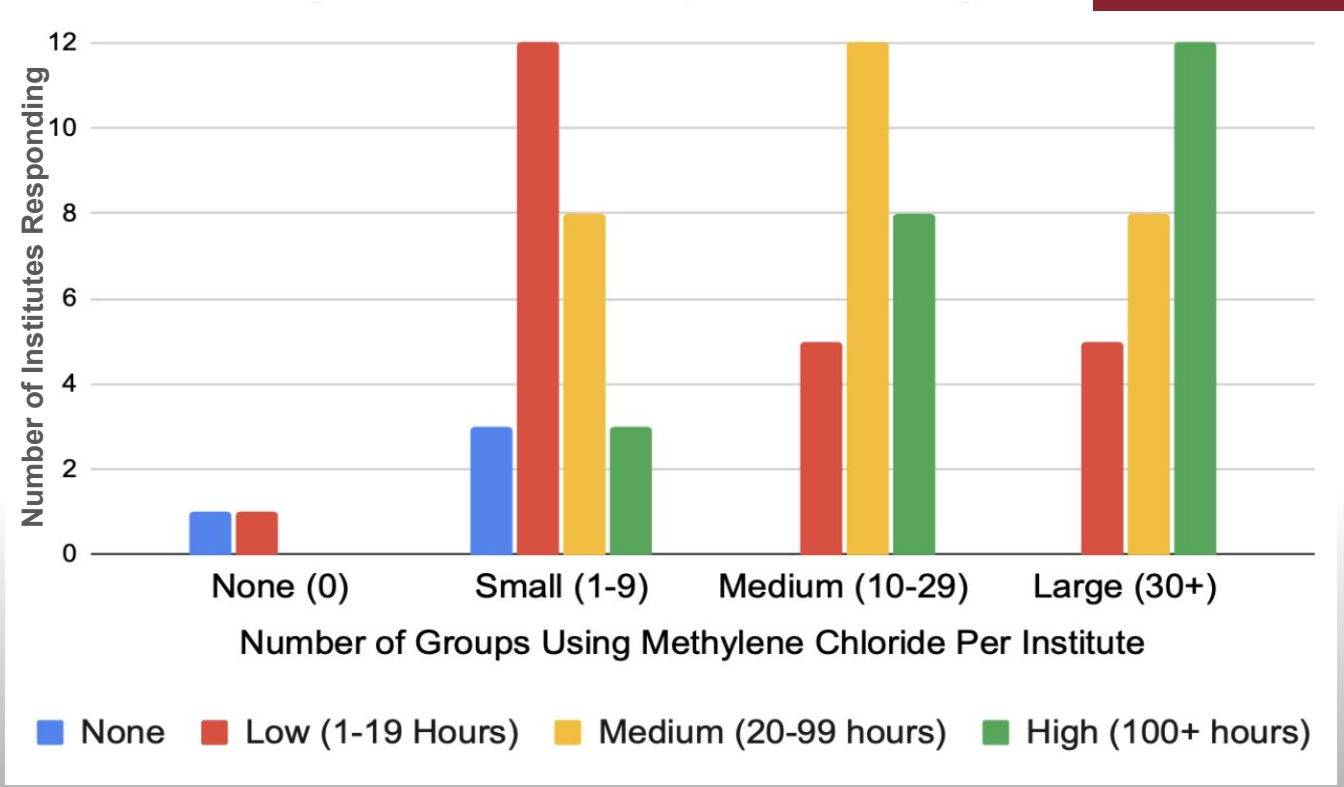
Estimated Staff Hours By Number of Groups Using Methylene Chloride, as of June 13, 2025

Excludes researcher & laboratory staff time commitments.

Estimated Hours Ranged:
0 hours to >500 hours



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Member Impact Survey - Exposure Monitoring

- Qualitative responses on exposure monitoring results.
- Over 40% of institutions reported no exceedance above the AL or STEL (35/82).
- No institutions reported exceedances when all work was performed inside a properly functioning fume hood or closed system.
- Low-volume and brief transfers outside hoods typically did not exceed limits, but did result in higher readings compared to in-hood work.
- Most exceedances occurred when handling methylene chloride outside a fume hood or other containment.
- Many exceedances were corrected by relocating operations into fume hoods, repairing equipment, or improving control measures.

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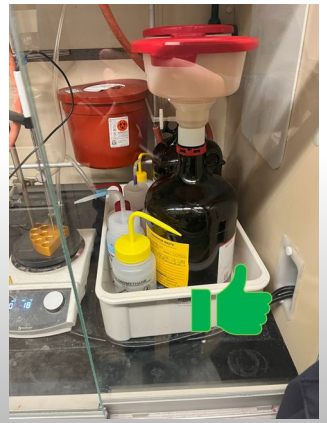
Member Impact Survey - Exposure Monitoring



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Requirements	EPA 40 CFR §751 Subpart B Methylene chloride regulation under TSCA	OSHA 29 CFR 1910.1450 Occupational exposure to hazardous chemicals in laboratories	Comparison
Written Program *facility or institution level*	109(a)(7) must implement a Workplace Chemical Protection Program (WCPP) to manage worker exposure to methylene chloride, including engineering controls, PPE, and administrative controls.	(e) Chemical Hygiene Plan (CHP) (e)(3)(vii) designate personnel responsible for implementation; Chemical Hygiene Officer (CHO)	WCPP limited to one chemical. CHP covers all chemicals.
Written Procedures *laboratory or area level*	109(e)(2) must develop and implement a written Exposure Control Plan (ECP) detailing how each use of methylene chloride will control exposures within the ECEL and STEL.	(e)(3)(i) requires labs write and maintain SOPs when working with hazardous chemicals	Unique ECP required for all uses in every area. SOPs required for particularly hazardous chemicals.
Exposure Limits	109(c) (1) ECEL 2 ppm as 8-hr average AL – 1 ppm as 8-hr average (2) STEL – 16 ppm as 15-min average	1910.1052(c) (c)(1) PEL – 25 ppm as 8-hr average AL – 12.5 ppm as 8-hr average (c)(2) STEL – 125 ppm as 15-min average	EPA reduces exposure limits under TSCA
Exposure Monitoring	109(d)(1)(i) Requires initial monitoring regardless of respiratory protection or controls.	(a)(2)(iii) and (d)(1) exposure monitoring is required when exposures are expected to routinely exceed the relevant health standard AL or PEL.	Under TSCA, initial monitoring is required regardless of respiratory protection or controls Monitoring required when AL or PEL is expected to be routinely exceeded.

Requirements	EPA 40 CFR §751 Subpart B Methylene chloride regulation under TSCA	OSHA 29 CFR 1910.1450 Occupational exposure to hazardous chemicals in laboratories	Comparison
Regulated Area	109(c)(3) establish, demarcate, and restrict access to any area where airborne concentrations of methylene chloride are reasonably expected to exceed the ECEL or STEL.	(e)(3)(viii)(A) Establish a designated area when working with particularly hazardous chemicals.	When expected to exceed the ECEL or STEL. Under normal lab use, we do not expect to exceed limits. Designated for particularly hazardous substances.
Methods of Compliance	109(e)(1) reduce exposures below ECEL or STEL using engineering controls and respiratory protection.	(e)(3)(iii) ensure fume hoods and other protective equipment are functioning properly and measures are taken to ensure proper and adequate performance of equipment. (e)(4) evaluate the effectiveness of CHP annually and update as necessary	Requires components of WCPP and maintaining ECPs to ensure adequate engineering and respiratory controls are used. Component of the CHP which requires the use or properly installed and maintained engineering controls; CHO evaluates and improves CHP annually.
Recordkeeping	113(a) through (h) must maintain and make available records of exposure monitoring, ECPs, locations and authorized individuals of regulated areas, and training.	(j) Required to maintain and make available any exposure records and any medical consultation and examination records.	Employer is required to create and maintain a unique ECP to document and justify each control used, maintenance requirements, PPE, and other information specific for each process. Other recordkeeping requirements are aligned with OSHA.
Training	109(h) provide initial training in accordance with 1910.1052(l)(1) through (6)	(f)(1) provide training for chemical hazards (f)(2) initial and refresher training (f)(3) and (4) covers required components of training	Training requirements align with OSHA. CHP requires refresher training.