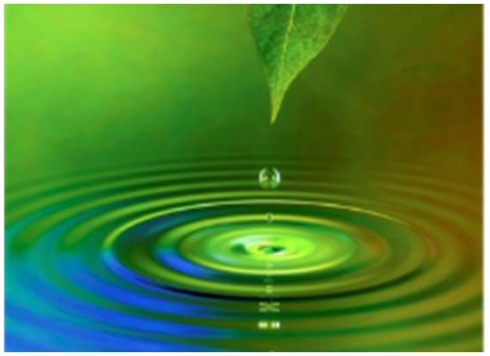





ASSP Badgerland Chapter
ECELs, NCELs, and WCPPs . . . Oh My!
December 11, 2025

Environmental



ECELs, NCELs, and WCPPs . . . Oh My!

Presented by: Brian Harms, PE, CIH

TRC Environmental Corporation

Presented at: Zoom Webinar
December 11, 2025

Speaker Bio

- **Brian Harms, P.E., CIH**

Brian Harms is a Director of Industrial Hygiene Services with TRC Environmental Corporation, located in West Allis, Wisconsin. In 1996, graduated from the University of Wisconsin with a B.S. degree in Civil and Environmental Engineering. Obtained Wisconsin Professional Engineer's License for environmental engineering in 2002. In 2005, received Certified Industrial Hygienist certification and has served as the President of the Wisconsin Section of the American Industrial Hygiene Association. Brian has been a consultant with TRC for 29 years specializing in industrial environmental compliance and indoor air quality including robust experience with foundries.

Acronyms

ECEL – Existing Chemical Exposure Limit

NCEL – New Chemical Exposure Limit

WCPP – Workplace Chemical Protection Program

TSCA – Toxic Substances Control Act

PMN – Premanufacture Notice

PEL – Permissible Exposure Limit (OSHA)

Background

Why ECELs and NCELs were created

The EPA developed these new exposure standards as part of its process to assess and manage the risks of chemicals in the workplace under the authority of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, which amended TSCA in 2016. The agency determined that, for certain high-risk chemicals, existing OSHA limits were insufficient to protect workers from potential health risks.

Total Chemicals in TSCA Database:	86,770
Total Active Chemicals in TSCA Database:	42,377
Total Number of Chemicals with OSHA PELs:	~500

Background

- Lautenberg amendments identified 10 chemicals – including methylene chloride - for risk evaluation
- 40 CFR 702 Subpart B (87 FR 37028 (May 3, 2024))
- Objective is to determine whether a chemical substance presents an unreasonable risk to health or the environment, under the conditions of use
- EPA evaluates both hazard and exposure
- No cost consideration
- Use scientific information
- Decisions are based on the weight-of-scientific-evidence

Background

- Lautenberg amendments identified 10 chemicals for risk evaluation, which included MeCl2
- March 2019, EPA rule restricted consumer uses of MeCl2 by prohibiting the distribution of products containing methylene chloride to and by retailers for paint and coating removal
- April 2019 Environmental Groups challenged the rule seeking to expand its scope to commercial uses
- June 2020 EPA risk evaluation
- September 2021 in Labor Council for Latin Am. Advancement v. United States EPA, 12 F.4th 234, Second Circuit Court of Appeals upheld the EPA rule and denied the challenge
- November 2022 EPA issued final revised risk evaluation finding MC as a whole chemical presents unreasonable risk
- May 3, 2023 EPA issued a proposed rule
- May 8, 2024 Final Rule issued
- Effective July 8, 2024 Effective Date of Rule
- May 5, 2025 prohibit the manufacturing, processing and distribution of the chemical for all consumer uses
- April 28, 2026 prohibit most industrial and commercial uses

Background

TSCA

Under (TSCA), any person who intends to manufacture (including import) a new chemical substance in the United States for commercial purposes must submit a premanufacture notice (PMN) to the EPA.

If EPA determines, among other things, that the PMN substance may present an unreasonable risk of injury to human health via inhalation exposure, EPA is likely to issue a TSCA section 5(e) Consent Order. The section 5(e) Order is likely to require, among other things, that potentially exposed employees of the Company must wear specified respirators unless actual measurements of the workplace air show that air-borne concentrations of the PMN substance are below a New Chemical Exposure Limit (NCEL) that is established by EPA to provide adequate protection to human health.

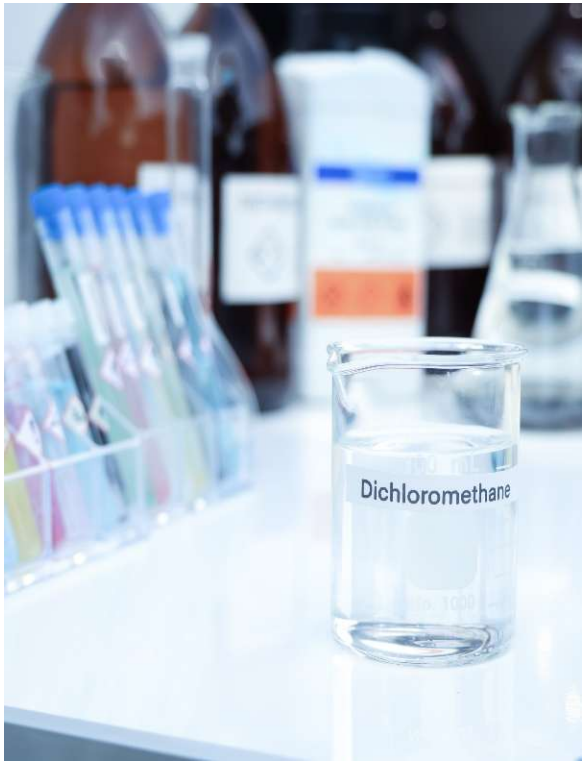
https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/new-chemical-exposure-limits-under#:~:text=If%20EPA%20determines%2C%20among%20other,section%205(e)%20Orders.

Background

- Entities and individuals subject to TSCA compliance

  Entities and individuals that manufacture, process, distribute, use, or dispose of chemicals are required to comply with TSCA. These include:

  - Corporations
  - Associations
  - **States and municipalities**
  - **Federal agencies and departments**
  - Private individuals



https://blog.sourceintelligence.com/ask-the-experts-toxic-substances-control-act-tsca-faq#:~:text=TSCA%20enforcement,protective%20as%20existing%20EPA%20standards.

Background

Per TSCA Section 3 (2)(b), the following chemicals are excluded from the TSCA definition for "chemical substance:"

- Mixtures,
- Pesticides as defined by FIFRA, when manufactured processed or distributed in commerce for use as a pesticide,
- Tobacco or any tobacco products,
- Source material, special nuclear material, or byproduct materials as defined by the Atomic Energy Act of 1954 an appurtenant regulations,
- Fire arms and components thereof, and
- **Any food, food additive, drug, cosmetic or device (as such terms are defined in section 201 of the Federal Food, Drug and Cosmetic Act) when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic or device.**

NCELs

The NCELs table lists the actual NCEL concentrations established by EPA for specific chemical substances regulated by section 5(e) Orders.

https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/non-confidential-list-tsca-new

Approximately 225 Chemicals with NCELs (See Table)

In addition to the actual NCEL concentration, the comprehensive NCELs provisions, which are modeled after Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs), include requirements addressing performance criteria for sampling and analytical methods, periodic monitoring, respiratory protection, and recordkeeping.

NCELs

What are the EPA Requirements for Addressing NCELs?

33 Page Summary Document

https://www.epa.gov/sites/default/files/2015-06/documents/draft_ncel_insert_042115.pdf

Non-8-Hour Work-shifts:

NCELn = NCEL x (8/n) x [(24-n)/16]

where n = the number of hours in the actual work-shift

So, for a 10-hour shift, would be 70% of the NCEL

Manufacturers Need to Provide a Sampling Method!

Submission of Verified Method and Certification Statement. The Company must submit to EPA a copy of a validated sampling and analytical method for the PMN substance which satisfies the criteria specified in this subsection (c); Need to use an accredited lab.

Non-Confidential List of NCELs https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/non-confidential-list-tsca-nev

PMN Case #	Chemical Identity	NCEL (8-hour time weighted average)
P-84-0105	Substituted tetrafluoroalkene (generic)	1 (ppm)
P-84-0106	Disubstituted tetrafluoroalkane (generic)	0.05 (ppm)
P-84-0107	Disubstituted tetrafluoroalkane (generic)	1 (ppm)
P-84-0660	Benzene, ethenyl-, ar-bromo derivs. [CAS# 125904-11-2]	0.3 (ppm)
P-84-0704	Benzene, (2-bromoethyl)-, ar-bromo derivs. [CAS# 125904-10-1]	0.3 (ppm)
P-85-0433	1-Propanol, 3-mercapto- [CAS# 19721-22-3]	0.5 (ppm)
P-87-1881	1,4-Cyclohexanediamine, cis-	0.2 (ppm)
P-87-1882	1,4-Cyclohexanediamine, trans-	0.2 (ppm)
P-89-0867	Decabromodiphenyl ethane	2.0 (mg/m3)
P-89-1058	Ethenyl 2,2-dimethylpropanoate	1 (ppm)
P-90-1384	Ethoxybenzothiazole disulfide (generic)	7.5 (mg/m3)
P-90-1564	Hexanedioic acid, diethenyl ester (generic)	1.0 (mg/m3)
P-90-1840	4-[3-(4-Aminophenoxy)phenoxy]aniline	0.03 (mg/m3)
P-91-0222	3-Aminopentanenitrile	0.6 (mg/m3)
P-91-0826	Ethenyl 2-ethylhexanoate	6.96 (mg/m3)
P-91-1210	Aliphatic polyisocyanate (generic)	0.5 (mg/m3)
P-92-0129	Ethenyl 6,6-dimethylheptanoate	1.0 (mg/m3)
P-92-0714	Aliphatic polyisocyanates (generic)	0.5 (mg/m3)
P-92-0776	Carboxylic acid glycidyl ester (generic)	0.4 (mg/m3)

NCELs

What are the EPA Requirements for Addressing NCELs?

33 Page Summary Document

https://www.epa.gov/sites/default/files/2015-06/documents/draft_ncel_insert_042115.pdf

Highlights (Written very similar to an OSHA Chemical Standard)

- Action Level half of the TWA
- Representative Exposure Groups (REGs)
- Respirators required until sampling shows otherwise
- Periodic Monitoring
- Additional Monitoring pg. 14
- Notification of results within 15 days
- Results less than the labs LQL, must use statistics to show less than 10% of the UQL

ECELs

EPA Existing Chemical Exposure Limits (ECELs) are regulatory, occupational exposure limits set by the U.S. Environmental Protection Agency (EPA) to protect workers from harmful inhalation risks from existing chemicals under the Toxic Substances Control Act (TSCA). ECELs are typically established within a Workplace Chemical Protection Program (WCPP). ECELs apply to chemicals already on the TSCA Inventory

ECELs

- Five ECELs so far with One Proposed

https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/list-final-and-proposed-existing-chemical-exposure

Chemical Name	CAS #	ECEL[a]	OSHA PEL	ACGIH TLV
Asbestos (Chrysotile)	132207-32-0	0.005 fibers/cubic centimeterc	0.1 fiber per cubic centimeter; 1 fiber per cc/30 minutes	0.1 fiber per cubic centimeter
Carbon Tetrachloride (CTC)	56-23-5	0.03 ppm	10 ppm; 200 ppm STEL	10 ppm
Methylene Chloride	75–09–2	2 ppm; 16 ppm STEL	25 ppm; 125 ppm STEL	50 ppm
Perchloroethylene (PCE)	127-18-4	0.14 ppm	--	--
Trichloroethylene (TCE)	79-01-6	0.2 ppm (Interim Limit Until All use is Prohibited)	100 ppm; 300 ppm 5-Minute Ceiling	10 ppm; 25 ppm STEL

ECELs

- Five ECELs so far with One Proposed

https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/list-final-and-proposed-existing-chemical-exposure

Chemical Identify	CAS #	ECEL[a]	OSHA PEL	ACGIH TLV
1-Bromopropane (1-BP)	106-94-5	0.05 ppm	--	0.1 ppm

WCPP

- Elements of this Rule **are** substantially similar to the OSHA MC Rule at 29 CFR 1910.1052:
  - Regulated Areas
  - Exposure Monitoring – action level trigger, specifications, initial AND periodic
  - Notification
  - Controls
  - Respirator Program
  - PPE/Dermal Hazard Assessment
  - Training
- Review your existing program and update with new requirements
- Email the presenters for comparison table spreadsheet for these two rules

WCPP - Asbestos

The EPA has not provided specific compliance dates for WCPP requirements related to asbestos. However, it is important to note that the EPA has finalized risk management rules under TSCA section 6 that impose extensive bans and restrictions on the use of chrysotile asbestos.

WCPP – Carbon Tetrachloride

The WCPP compliance dates for carbon tetrachloride (CTC) are as follows: [Press Release on 9/12/2025 – EPA Announces Upcoming Reconsideration of this Rule]

Initial monitoring:	June 11, 2026
Exposure limits:	September 9, 2026
Exposure control plans:	December 3, 2027

WCPP – Trichloroethylene

The WCPP compliance dates for trichloroethylene (TCE) are as follows: [EPA published interim final rule 9/17/2025 and pushed out these prohibition dates for certain industries. That said, if you are allowed to use TCE going forward, evaluate your condition of use requirements for WCPP components and their due dates very closely.]

https://www.epa.gov/system/files/documents/2025-01/tce-compliance-guide.pdf

Initial monitoring:	June 16, 2025
Exposure limits:	September 15, 2025
Exposure control plans:	December 18, 2025

WCPP – Perchloroethylene

The WCPP compliance dates for Perchloroethylene (PERC) are as follows: [Press Release on 7/30/2025 – EPA Announces Upcoming Reconsideration of this Rule]

https://www.epa.gov/system/files/documents/2024-12/pce-fact-sheet_english.pdf

Initial monitoring: December 15, 2025

Exposure limits: March 13, 2026

Exposure control plans: June 7, 2027

Methylene Chloride

Methylene Chloride ($MeCl_2$) is the second chemical, after asbestos, to be banned under the 2016 Amended TSCA

EPA determined methylene chloride is too risky because brief, high exposures can cause death, nervous system problems, and certain cancers.

$MeCl_2$ is a large volume chemical with annual production between 100-500 million pounds

EPA restricted use of MC primarily to protect workers. According to EPA, at least 88 people have died from exposure to methylene chloride since 1980

WCPP – Methylene Chloride

The WCPP compliance dates for Methylene Chloride are as follows: (Initial Dates Extended 18-Months to the dates shown below, only applies to lab operations)

https://www.federalregister.gov/documents/2025/05/27/2025-09421/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca-compliance-date-extensions

Initial monitoring:	May 5, 2025; now November 9, 2026
Exposure limits:	August 1, 2025; now February 8, 2027
Exposure control plans:	October 30, 2025; now May 10, 2027

13 Conditions of Use for Methylene Chloride (All other uses Prohibited)

- Manufacturing (domestic)
- Manufacturing (import)
- Processing as a reactant (AIM Act refrigerants)
- Processing as incorporation into a formulation, mixture, or reaction product
- Processing: recycling
- Processing: repackaging
- **Industrial and commercial use as a laboratory chemical**
- Industrial or commercial use for paint and coating remove from safety-critical, corrosion-sensitive components of aircraft and spacecraft
- Industrial or commercial use as a bonding agent for solvent welding
- Industrial or commercial use as a processing aid
- Plastic and rubber products manufacturing, including polycarbonates
- Industrial or commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed
- Disposal

Litigation Issues

- EPA has stated this rule is expected to trigger lawsuits because it sets precedent, is a model for future regulatory controls, and because it includes EPA's interpretation of new authorities under the 2016 TSCA Amendments
- EPA states provisions are severable
- MOU between EPA and OSHA regarding enforcement of workplace safety requirements
- The EPA's decision to ban uses of MC regardless of whether a company or sector can comply with the WCPP requirements
- Failure to fully assess risk to fenceline communities
- EPA has not adequately justified its proposed TSCA section 6(g) exemptions.
- The scientific basis of the Existing Chemical Exposure Limit (ECEL) the EPA set at 2 parts per million (ppm) as part of its worker protection program

Pharmaceutical Exemption

The preamble to EPA's original TSCA rulemaking procedures contains the following comments and EPA's responses thereto:

Comment 41: Intermediates and catalysts intended solely for use in the production of a . . . drug . . . are excluded from regulation under TSCA.

Response: [EPA] agrees with this comment. The definitions of the [FDCA] provide that chemical substances which are intended for use as a component of a . . . drug . . . are encompassed within the meaning of such terms respectively. The FDA considers such intermediates and catalysts to be such components. Therefore, they are subject to regulation under the [FDCA]. Any such substance is excluded from regulation under TSCA insofar as it is actually manufactured[,] processed or distributed in commerce solely for use in the production of a . . . drug[.]

Laboratory Uses of Methylene Chloride

- Universities previously not under OSHA jurisdiction are now being pulled into this. University of Minnesota and University of Kentucky presented at AIHA Connect 2025.

  - Highlights from that Presentation
    - Found it used in many labs, used hazardous waste shipping records to track down different labs using it. [EPA can track in the same manner]
    - Portable FTIR (fourier-transform infrared) spectrometer used for demarcating regulated areas
    - Supplied Air Only Respirator Option per the Standard
    - Used the EPA Compliance Guide

    https://www.epa.gov/system/files/documents/2024-07/mecl-compliance-guide.pdf

Laboratory Uses

Respiratory Protection

Owner/operators must institute engineering, work practice, and administrative controls and maintain their effectiveness to reduce employee exposure to or below the ECEL. **If respiratory protection is needed, supplied-air respirators must be used for methylene chloride**. This rule does **NOT** permit the use of air-purifying respirators due to the short service life of chemical cartridges when used for methylene chloride exposure. For more information, see § 751.109(f)(2) and OSHA 1910.134(a),

TRC Study

Sample Data from a Large University. (36 Samples from first round) This is why we check.

Employee Position	Task Description/Notes	Sample Length (Min.)	Analyte	Units	Sample Result [1]	Corrected Sample Result [2]	USEPA ECEL (TWA)	USEPA ECEL Action Level (TWA)	USEPA ECEL (STEL)
Building x Lab xxxx	Thin-Layer Chromatography: DCM is collected in a beaker inside a hood. Sash doors are closed during collection. Collected DCM is moved from the hood to a side table to dry.	421	Methylene Chloride	ppm	1.4	**1.2**	2	1	--
Building x Lab xxxxxx	Transfer of DCM inside flammable storage cabinet from 19L drum to 1 L bottle. Plastic transfer pump was not tight-fitting to drum.	12	Methylene Chloride	ppm	49	**39.2**	--	--	16

TRC Study

More Sample Data from a Large University

Employee Position	Task Description/Notes	Sample Length (Min.)	Analyte	Units	Sample Result [1]	Corrected Sample Result [2]	USEPA ECEL (TWA)	USEPA ECEL Action Level (TWA)	USEPA ECEL (STEL)
Building cc Lab xxxxx	Transferred DCM from 19L drum into 4L bottle using detachable pump, under fume hood. Spilled approximately 100 mL DCM under hood during transfer.	15	Methylene Chloride	ppm	<2.9	--	--	--	16
Building xx Lab xxxxx	Column chromatography - GC Inside of Hood No unusual exposure or occurrence during the day.	389	Methylene Chloride	ppm	4.2	**3.4**	2	1	--
Building xx Lab xxxx	Transfer DCM from 19L drum to 4L bottle under fume hood, and carried to rack in chromatograph hood.	15	Methylene Chloride	ppm	<2.9	--	--	--	16

Who Has Jurisdiction for Enforcement?

https://www.epa.gov/system/files/documents/2025-01/epa-and-osha-tsca-section-6-mou.pdf

Memo of Understanding between EPA and OSHA - December 2024

"As EPA carries out TSCA section 6 efforts, EPA and OSHA agree to communicate in a manner consistent with each agency's respective needs, resources, and authorities in order to align effectively and provide greater clarity to the regulated community regarding section 6 prioritization, risk evaluation, rulemaking and implementation efforts as it pertains to chemical hazards in the workplace. The parties acknowledge that EPA bears sole responsibility for TSCA section 6 prioritization, risk determination, and rulemaking decisions, and that OSHA's input in these matters is purely consultative. It is anticipated that EPA's Office of Chemical Safety and Pollution Prevention and OSHA's Directorate of Standards and Guidance will coordinate the agencies' communication regarding regulatory development under TSCA section 6."

Who Has Jurisdiction for Enforcement?

https://www.epa.gov/system/files/documents/2025-01/epa-and-osha-tsca-section-6-mou.pdf

Memo of Understanding between EPA and OSHA - December 2024

EPA and OSHA agree to share information between the two agencies based on each agency's respective resources, expertise, and authorities, including but not limited to the following:

> Information on complaints, inspections, potential violations and EPA's planned enforcement, as appropriate, related to TSCA section 6 activities in workplaces where areas of mutual interest exist. Each organization will exercise its independent jurisdiction to enforce applicable regulations and laws. EPA and OSHA agree to mutually refer potential violations under TSCA section 6 and OSHA standards in workplaces within their respective jurisdictions, and, for cases of joint interest, take other cooperative steps to share information on such potential violations.

Thoughts?

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