TSCA Occupational REs: First 10 Chemicals

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§2601. Findings, policy, and intent

(a) Findings

The Congress finds that—

(1) human beings and the environment are being exposed each year to a large number of chemical substances and mixtures;

(2) among the many chemical substances and mixtures which are constantly being developed and produced, there are some whose manufacture, processing, distribution in commerce, use, or disposal may present an unreasonable risk of injury to health or the environment; and

(3) the effective regulation of interstate commerce in such chemical substances and mixtures also necessitates the regulation of intrastate commerce in such chemical substances and mixtures.

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§2601. Findings, policy, and intent

(b) Policy

It is the policy of the United States that—

(1) adequate information should be developed with respect to the effect of chemical substances and mixtures on health and the environment and that the development of such information should be the responsibility of those who manufacture and those who process such chemical substances and mixtures;

(2) adequate authority should exist to regulate chemical substances and mixtures which present an unreasonable risk of injury to health or the environment, and to take action with respect to chemical substances and mixtures which are imminent hazards; and

(3) authority over chemical substances and mixtures should be exercised in such a manner as not to impede unduly or create unnecessary economic barriers to technological innovation while fulfilling the primary purpose of this chapter to assure that such innovation and commerce in such chemical substances and mixtures do not present an unreasonable risk of injury to health or the environment.

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§2601. Findings, policy, and intent

(c) Intent of Congress

It is the intent of Congress that the Administrator shall carry out this chapter in a reasonable and prudent manner, and that the Administrator shall consider the environmental, economic, and social impact of any action the Administrator takes or proposes as provided under this chapter.

§2602. Definitions

As used in this chapter:

(1) the [1] term "Administrator" means the Administrator of the Environmental Protection Agency.

First Ten Chemicals

<https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/chemicals-undergoing-risk-evaluation-under-tsca>

Chemical Name	CASRN	Chemical Group	Docket Number(s)	Status
Asbestos (Chrysotile)	1332-21-4	N/A	EPA-HQ-OPPT-2016-0736; EPA-HQ-OPPT-2019-0501	Part 1: Final risk evaluation (December 2020)
1-Bromopropane	106-94-5	Solvents	EPA-HQ-OPPT-2019-0235; EPA-HQ-OPPT-2016-0741	Final risk evaluation (August 2020)
Carbon Tetrachloride	56-23-5	Solvents	EPA-HQ-OPPT-2019-0499; EPA-HQ-OPPT-2016-0733	Final risk evaluation (November 2020)
C.I. Pigment Violet 29 (PV29)	81-33-4	Pigments	EPA-HQ-OPPT-2018-0604; EPA-HQ-OPPT-2016-0725	Final risk evaluation (January 2021)
Cyclic Aliphatic Bromide Cluster (HBCD)	25637-99-4; 3194-55-6; 3194-57-8	Flame retardants	EPA-HQ-OPPT-2019-0237; EPA-HQ-OPPT-2016-0735	Final risk evaluation (August 2020)
1,4-dioxane	123-91-1	Solvents	EPA-HQ-OPPT-2019-0238; EPA-HQ-OPPT-2016-0723	Final risk evaluation (December 2020)
Methylene Chloride	75-09-2	Solvents	EPA-HQ-OPPT-2019-0437; EPA-HQ-OPPT-2016-0742	Final risk evaluation (June 2020)
N-Methylpyrrolidone (NMP)	872-50-4	Solvents	EPA-HQ-OPPT-2019-0236; EPA-HQ-OPPT-2016-0743	Final risk evaluation (December 2020)
Perchloroethylene	127-18-4	Solvents	EPA-HQ-OPPT-2019-0502; EPA-HQ-OPPT-2016-0732	Final risk evaluation (December 2020)
Trichlorethylene (TCE)	79-01-6	Solvents	EPA-HQ-OPPT-2016-0737; EPA-HQ-OPPT-2019-0500	Final risk evaluation (November 2020)

EPA Human Health Benchmarks

- Carcinogenic risk (Occup): LER > 10^{-4}
- Non-carcinogenic risk: MOE approach

Conditions of Use (COUs)

§2602. Definitions

(4) The term "conditions of use" means the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.

TSCA Risk Evaluations

- COUs ➡ Exposure Scenarios
- Occupational Scenarios include both workers and ONUs (Occupational Non-users)

COUs Posing Unreasonable Risks (First 10)

Chemical Name	CASRN	Chemical Group	COUs considered	COUs posing UR	COUs posing consumer UR	COUs posing occup UR
Asbestos (Chrysotile)	1332-21-4	N/A	32	16	*4*	***12***
1-Bromopropane	106-94-5	Solvents	25	16	7	**9**
Carbon Tetrachloride	56-23-5	Solvents	15	13	0	**13**
C.I. Pigment Violet 29 (PV29)	81-33-4	Pigments	14	10	0	**10**
Cyclic Aliphatic Bromide Cluster (HBCD)	25637-99-4; 3194-55-6; 3194-57-8	Flame retardants	12	6	*2*	***2***
1,4-dioxane	123-91-1	Solvents	24	13	0	**13**
Methylene Chloride	75-09-2	Solvents	53	47	12	**35**
N-Methylpyrrolidone (NMP)	872-50-4	Solvents	37	26	*2*	***24***
Perchloroethylene	127-18-4	Solvents	61	59	20	**39**
Trichlorethylene (TCE)	79-01-6	Solvents	54	52	25	**27**
			327	258	72	**184**

General Observations

- Reviews of First Ten were very labor intensive (for EPA staff, SACC and commenters). Current process not viable for c. 30,000 chemicals in commerce.
- SACC generally accepted EPA role in occupational risk and application of traditional (deterministic) EPA risk methodologies. Focused on quality, consistency of analysis.
- Discussion often revolved around choice of tox endpoints and exposure scenarios, occasional math errors.
- Public comments often included valuable points that were incorporated into SACC Review.