Substances Critical to National Security

Briefing for the Committee on Armed Services of the U.S. House of Representatives
Pursuant to the House Report 118-529, page 130, accompanying H.R. 8070, National Defense Authorization Act for Fiscal Year 2025

February 2025

The estimated cost of this report or study for the Department of Defense is approximately $20,416 for the 2025 Fiscal Year. This includes $10,000 in expenses and $20,406 in DoD labor.
Generated on 2025 January 7 RefID:3-FCD9F8E

Purpose

Report 118-529 of the Committee on Armed Services, House of Representatives, accompanying H.R. 8070, National Defense Authorization Act for Fiscal Year 2025 requested a briefing on Substances Critical to National Security:

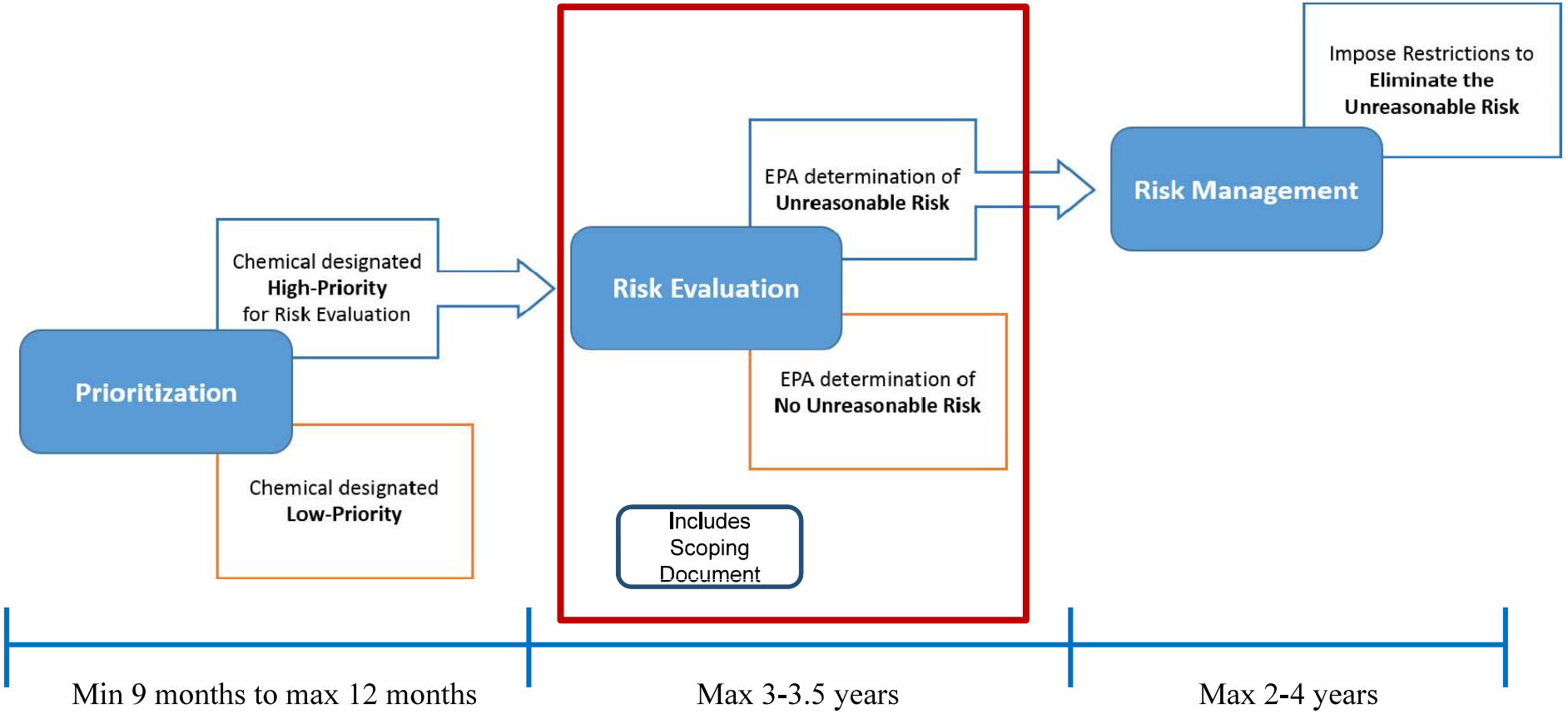
"The committee recognizes the important role critical chemistries play in the defense industrial base and the need to maintain a domestic supply of chemicals for products and uses essential for national security. The committee directs the Secretary of Defense, in coordination with the Chemical and Material Risk Management Program of the Department of Defense, to submit a briefing to the House Committee on Armed Services not later than January 31, 2025, outlining uses of chemical substances undergoing risk evaluation by the Environmental Protection Agency under the Toxic Substances Control Act, that are critical to the national security of the United States. The report should include the following:

1) the sectors outlined in the February 2022 report of the Department of Defense titled "Securing Defense-Critical Supply Chains," and
2) sectors of strategic importance for domestic production and investment to build supply chain resilience, including kinetic capabilities, energy storage and batteries, and microelectronics and semiconductors."

Briefing Topics

- **U.S. Environmental Protection Agency (EPA) Toxic Substances Control Act (TSCA) §6 Process for Existing Chemicals**
  - Chemical Substances Undergoing TSCA §6 Risk Evaluation
- **Department of Defense (DoD) Reliance on Chemicals and Materials**
- **Critical Sectors**
- **Data Gathering Methodology**
- **Known Chemical Applications within the Critical Sectors**
  - Kinetic Capabilities
  - Energy Storage and Batteries
  - Microelectronics
  - Castings and Forgings
  - Strategic and Critical Materials
- **Other Critical Applications**
- **Conclusions**

EPA TSCA §6 Process for Existing Chemicals



EPA process and timelines for prioritizing and evaluating the risks of existing chemicals.

This briefing focuses on TSCA high priority chemicals currently undergoing risk evaluations; however, there are other chemicals of DoD interest undergoing TSCA risk management.

https://www.epa.gov/sites/default/files/2017-11/documents/final_pre-prioritization_-_discussion_document_11.13.17.pdf

Chemical Substances Undergoing TSCA §6 Risk Evaluation

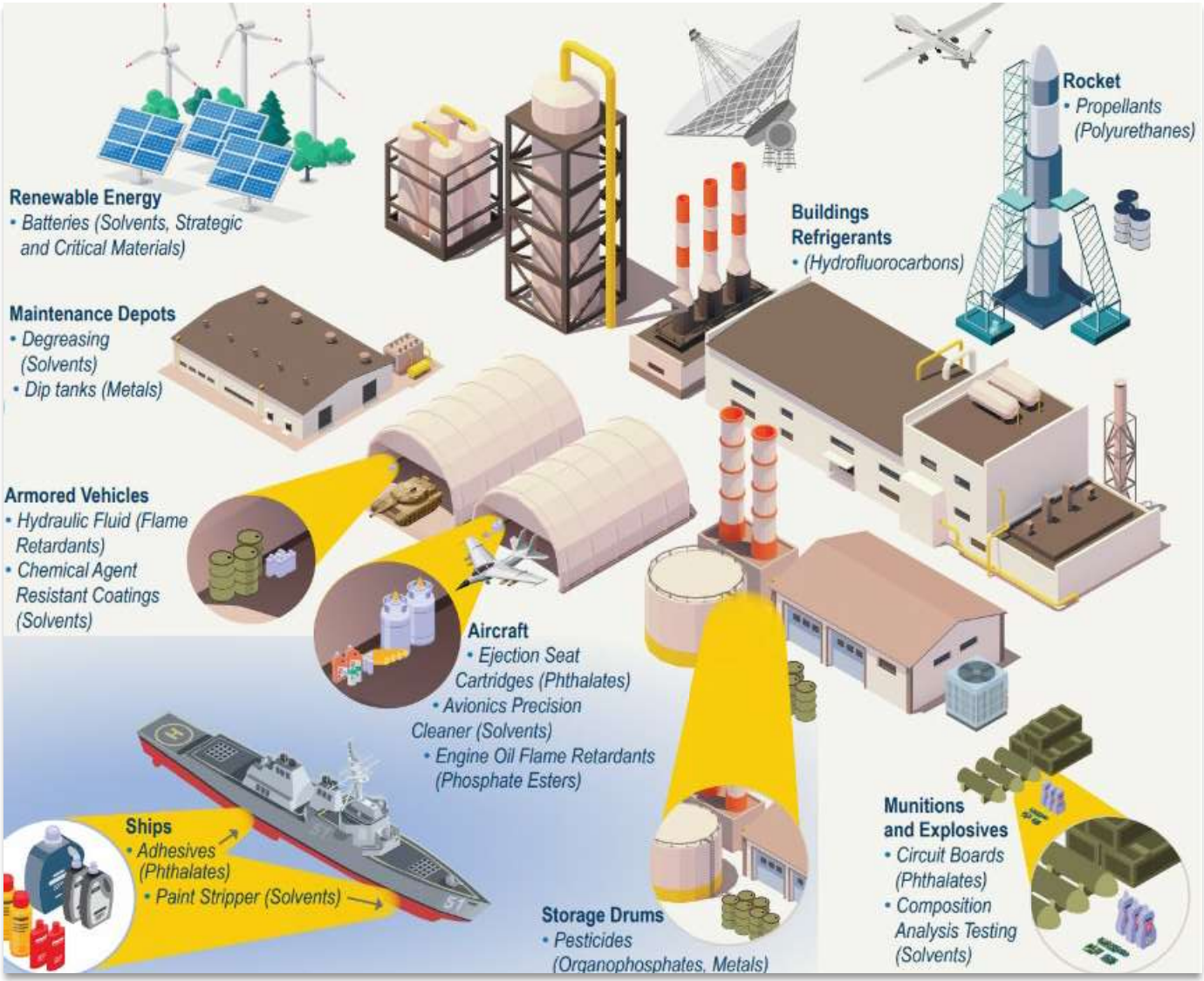
This list includes the 20 chemicals designated on December 30, 2019, as high priority for risk evaluation[1] and four chemicals undergoing manufacturer-requested risk evaluations[2].

Chemical Group	Chemical	CASRN
Flame Retardant (FR)	Tetrabromobisphenol A (TBBPA)	79-94-7
	Tris(2-chloroethyl) phosphate (TCEP)	115-96-8
	Phosphoric acid, triphenyl ester (TPP)	115-86-6
Phthalate (*mostly used as plasticizers*)	Butyl benzyl phthalate (BBP)	85-68-7
	Dibutyl phthalate (DBP)	84-74-2
	Dicyclohexyl phthalate (DCHP)	84-61-7
	Di-ethylhexyl phthalate (DEHP)	117-81-7
	Di-isobutyl phthalate (DIBP)	84-69-5
	Diisodecyl Phthalate (DIDP)*	26761-40-0; 68515-49-1
	Diisononyl Phthalate (DINP)*	28553-12-0; 68515-48-0
Solvent	1,1-dichloroethane (1,1-DCA)	75-34-3
	1,2-Dichloroethane (1,2-DCA)	107-06-2
	1,2-dichloropropane (1,2-DCP)	78-87-5
	1,1,2-Trichloroethane (1,1,2-TCA)	79-00-5
	Trans-1,2-Dichloroethylene (Trans-DCE)	156-60-5
Other	1,3-Butadiene	106-99-0
	Ethylene Dibromide	106-93-4
	Formaldehyde	50-00-0
	Galaxolide (HHCB)	1222-05-5
	Octamethylcyclotetrasiloxane (D4) *	556-67-2
	ortho-Dichlorobenzene (o-DCB)	95-50-1
	para-Dichlorobenzene (p-DCB)	106-46-7
	Phthalic anhydride	85-44-9
	Octahydro-tetramethyl- naphthalenyl-ethanone (OTNE) *	Category

* Chemicals undergoing manufacturer-requested risk evaluations.

[1] 84 FedReg 71924 (Dec 30, 2019); [2] https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/list-manufacturer-requested-risk-evaluations-under-tsca

DoD Relies on Chemicals and Materials



Critical DoD infrastructure, equipment, weapon systems, and platforms depend on chemicals and materials.

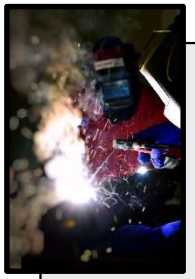
Critical Sectors

- This briefing focuses on critical uses in the sectors outlined in the February 2022 DoD report titled "Securing Defense-Critical Supply Chains" and sectors of strategic importance for domestic production and investment to build supply chain resilience.
- Critical TSCA chemical uses were identified in the *five sectors* and in numerous additional mission critical use categories. ***This briefing covers known chemical applications at the time of drafting this briefing.***

Kinetic capabilities: Current missile systems and advanced and developing missile capabilities, including hypersonic weapons technology, as well as directed energy weapons.

Energy storage and batteries: High-capacity batteries, with a particular focus on lithium-ion batteries.

Microelectronics and semiconductors: State-of-the-Practice (SOTP) and legacy microelectronics, State-of-the-Art (SOTA) microelectronics, and semiconductors.



Castings and forgings: Metals or composites developed into key parts and manufacturing tools through high-intensity processes.

Strategic and critical minerals: Minerals to supply U.S. military, industrial, and essential civilian national emergency needs, with emphasis on those that are not produced in sufficient quantities in the United States.

Data Gathering Methodology

1. Define scope of briefing

2. Review DIB resources provided to EPA for each chemical.

3. Assess DoD Usage against COUs for each chemical.

4. Evaluate DIB and DoD applications against COUs.

- Focused on the 20 chemicals designated on December 30, 2019, as high priority for TSCA risk evaluation and four manufacturer-requested chemicals for risk evaluation.
- Reviewed references in TSCA scoping documents, federal docket comments, and EPA Chemical Data Reporting (CDR) data to better understand defense industrial base (DIB) applications.
- Reviewed usage and procurement data from the Military Departments and Agencies.
  - Queried DoD hazardous material and industrial hygiene databases for products and materials procured by DoD that may contain the evaluated chemical.
  - DoD databases tend to rely on safety data sheets (SDSs), which generally inform consumable use. Gaps exist for understanding chemical applications in articles.
- Cross-walked DoD and DIB information to EPA COUs to identify potential critical applications under consideration and gaps.

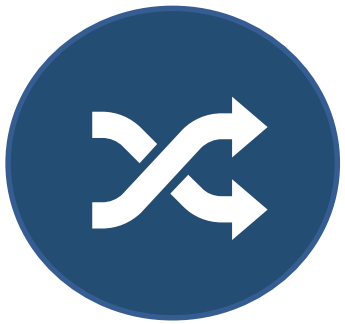
The CMRMP used DIB resources to inform the program's understanding of potential supply chain applications of TSCA §6 chemicals. The DoD collects mainly consumable applications of TSCA §6 chemicals.

Conditions of Use (COUs) With Potential for Regulation Under TSCA

Upstream COUs are not well captured in chemical and material supplier disclosures.

Processing as Reactant

Processing in Articles



Incorporation into Formulations and Mixture

Industrial Applications

Commercial/Consumer Applications

Disposal

The complexities in dissecting the DIB value chain and supply chain dependencies, in addition to the lack of transparency in chemical ingredients in defense products, limits DoD's ability to gather comprehensive data on all critical TSCA uses.

Kinetic Capabilities: Direct Applications

Kinetic capabilities represent a direct use of TSCA §6 chemicals, as these chemicals are found in a variety of applications across the DoD munitions portfolio.

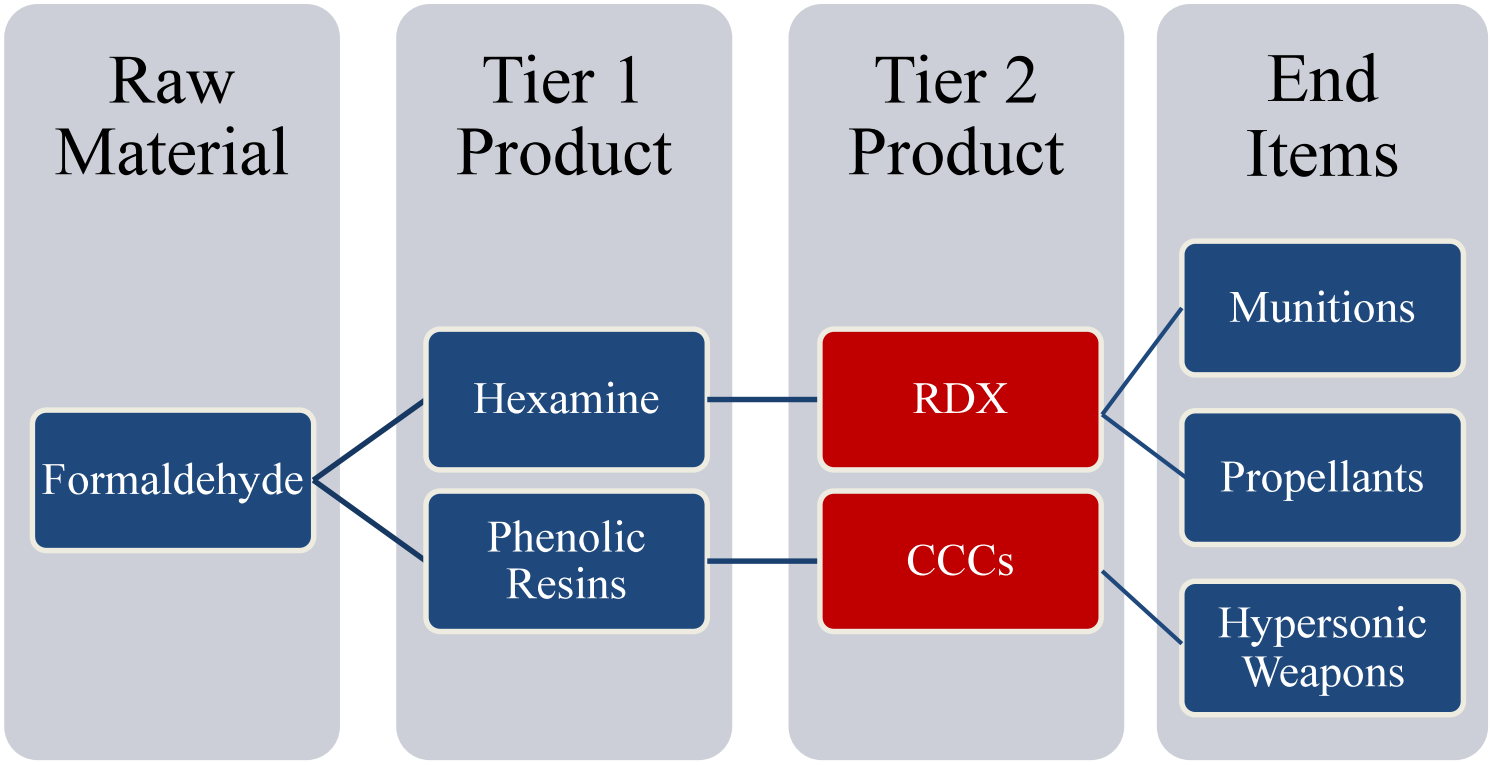
- Phthalates are used as non-energetic plasticizers in solid gun propellants, including single-, double-, and triple-base propellant compositions.
- The plasticizers improve the processibility and flexibility of the propellant slurry and mechanical properties of the cured propellant. The use of phthalates as plasticizers in propellants is unique to the DoD.
  - DBP (explosives, aircraft ejection seat cartridge, propellant)
  - DEHP (munitions)
  - DIDP and DINP (mold-making for munitions)
- Phthalic anhydride is used in a HiViz signal dye for fiber optics.

Currently, no alternatives exist for most of these applications, and the likelihood of developing alternatives for these uses is estimated to range from moderate (10-15+ years) to almost impossible.

Kinetic Capabilities: Indirect Applications

TSCA §6 chemicals are used in a variety of applications during energetics processing and testing.

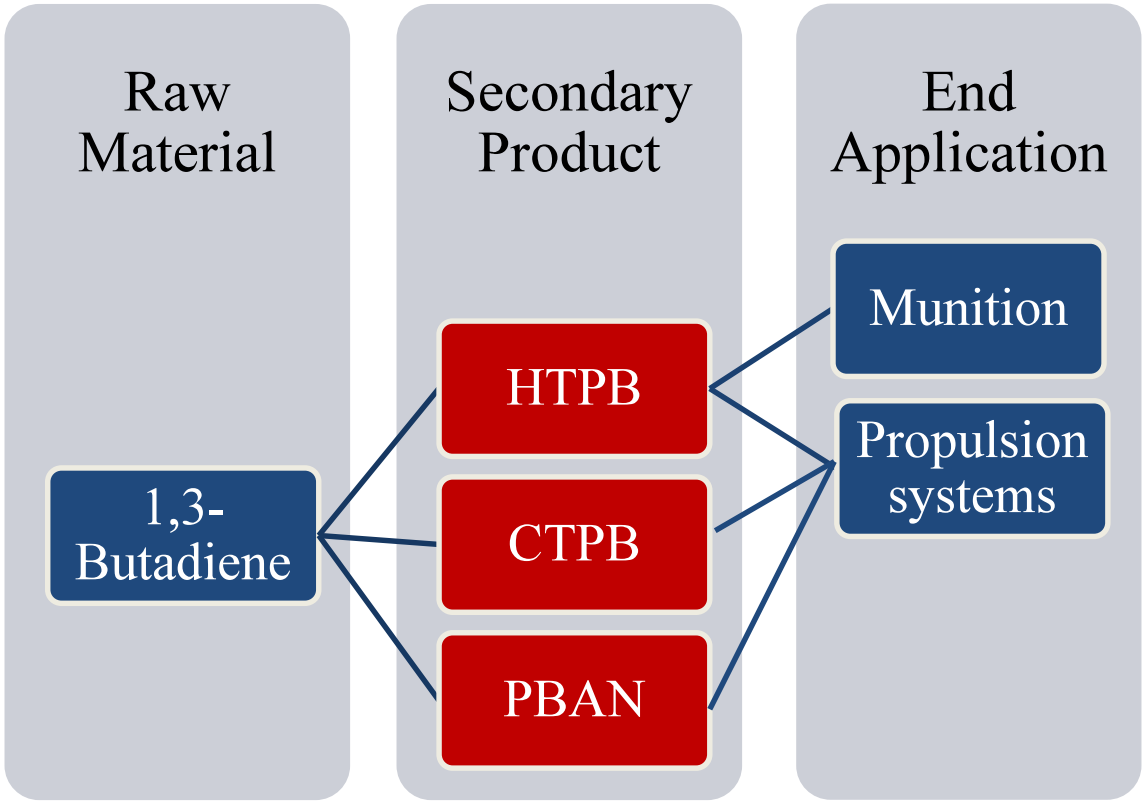
- Formaldehyde is a critical intermediate in the production of Royal Demolition eXplosive (RDX) and other explosive compounds with widespread DoD uses.
- Formaldehyde is used to form phenolic resins, which are the basis for state-of-the-art formation of carbon-carbon composites (CCCs). CCCs are used in hypersonic weapons.



Kinetic Capabilities: Indirect Applications (*cont'd*)

TSCA §6 chemicals are used in a variety of applications during energetics processing and testing.

- Hydroxyl-terminated polybutadiene (HTPB), carboxyl-terminated polybutadiene (CTPB), and polybutadiene acrylonitrile (PBAN) are used as a binder component for several propulsion systems.
- 1,3-Butadiene is the precursor used to produce HTPB, CTPB, and PBAN.



Kinetic Capabilities: Operation and Sustainment Applications

TSCA §6 chemicals are also used in a variety of applications for the operations and sustainment of kinetic capabilities. Many chemicals and products are used to maintain weapon systems and platforms.

Direct applications

- Tape, cables, and connectors
- Oils, greases, fluids, and lubricants
- Adhesives
- Sealing compounds
- Insulation and foam blowing
- Resins for specialty materials
- Paints and coatings

Used for testing and preparation during maintenance processes

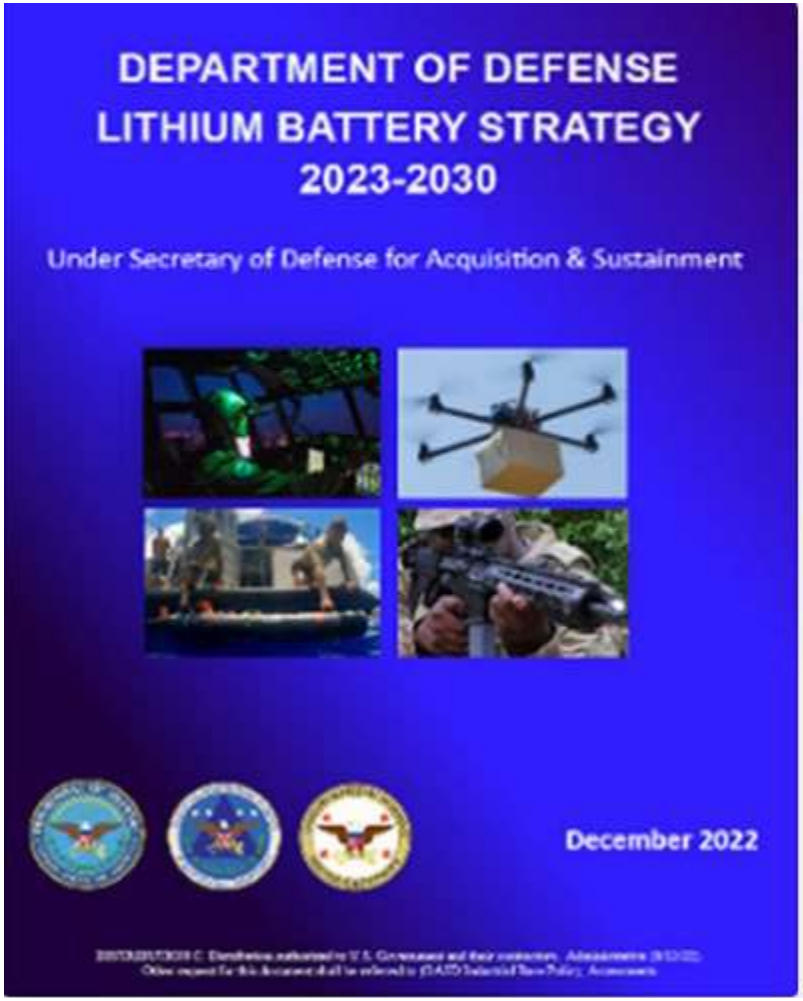
- Precision cleaning fluids
- Degreasing/cleaning fluids
- Inspection fluids

See slide 23 for additional crosswalk of chemicals to products.

Energy Storage and Battery

According to the DoD Lithium Battery Strategy 2023-2030, lithium batteries are becoming increasingly critical for a wide range of operational capabilities, including unmanned systems, missiles, and munitions, directed energy, silent mobility, and platform electrification.

DoD is not the primary consumer of batteries in the United States, but battery supply chain issues would impact the ability to produce missiles and field military vehicles that increasingly rely on batteries.



https://www.businessdefense.gov/ibr/pat/battery-strategy.html

Energy Storage and Battery *(cont'd)*

Impacts from TSCA regulation to national security in energy storage and battery applications are indirect. The applications below were not captured in EPA's scope documents* as these chemical uses occur in earlier tiers of the battery supply chain.

- 1,3-Butadiene is used to make acrylonitrile butadiene styrene (ABS) and styrene-butadiene rubber (SBR).
  - ABS is a popular thermoplastic polymer used in many industries, including automotive, electronics, and telecommunications. ABS is often used in battery holders and covers.
  - SBR is used in the binder as an anode.
- Many solvents undergoing TSCA §6 risk evaluations are used in lithium-ion battery production.
  - 1,1-Dichlorethane is an intermediate used in battery binder production.

High priority chemicals currently undergoing risk evaluation may serve as alternatives to chemicals subjected to TSCA §6(a) risk management rulemakings ("TSCA 10" high priority chemicals). For example:

- **Trichloroethylene (TCE) is used in manufacturing of lithium-ion and lead battery separators.**
- **N-methylpyrrolidone (NMP) is the main solvent used worldwide in almost all lithium-ion cathodes. Very few companies have found NMP-free approaches.**

These chemicals are of particular interest to DoD due to their uses in critical applications for the defense industrial base.

* EPA Scope Documents are a component of the risk evaluation process that provides the public with information on the focus of the risk evaluation.

Energy Storage and Battery *(cont'd)*

TBBPA and DEHP were mentioned in EPA's scope documents as being directly tied to a battery COU.

- TBBPA
  - COU = Industrial/Commercial/Consumer Use: Construction, paint, electrical, and metal products – Batteries (e.g., adhesive in lead-acid battery casings)
- DEHP
  - COU = Industrial/Commercial/Consumer Use: Batteries (e.g., digital camera)

Microelectronics

Microelectronics are essential for all sectors of industry, including defense. The National and Economic Infrastructure accounts for 32% of the U.S. demand,[1] while DoD's market presence accounts for approximately 1% of the demand.[2]

In wider microelectronics applications, TSCA §6 chemicals remain key industrial materials in applications that integrate microchips into electronic products, such as printed circuit boards. The following uses were reported by industry:

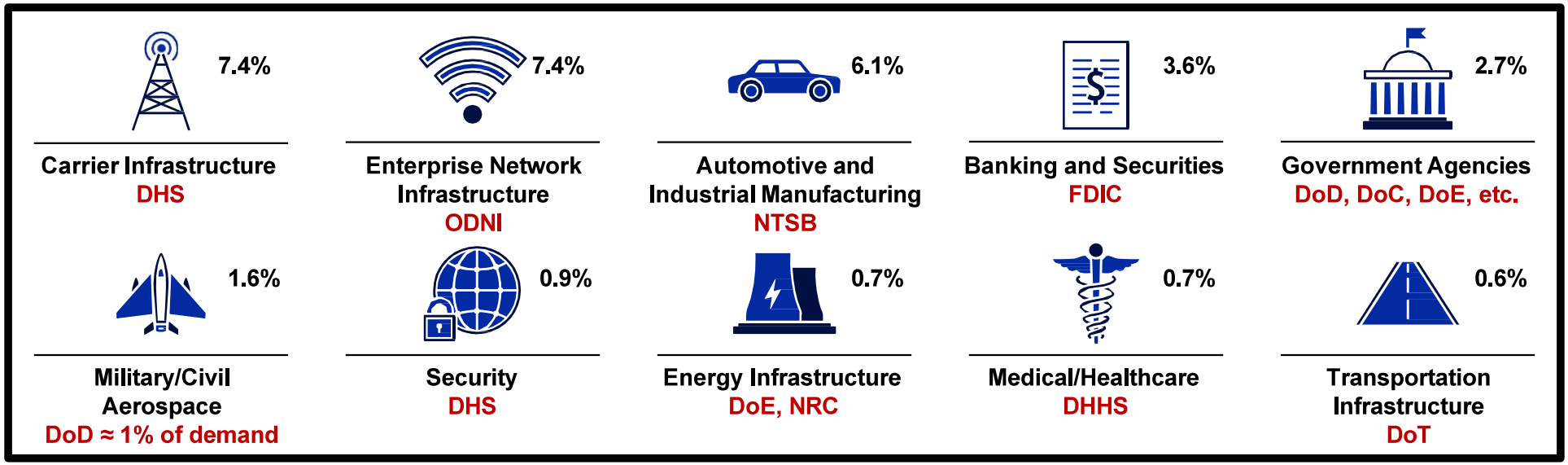
- TBBPA is used in **nearly all types of electrical and electronic equipment** (IPC and American Chemistry Council (ACC)).
  - TBBPA is used as a reactive flame-retardant in epoxy-based printed circuit boards to meet UL-94 "Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances Testing".
- TBBPA is chemically reacted to form a new molecule within the printed circuit board and **this application is estimated to account for 70% of global demand for TBBPA** (Albermarle).
- "TBBPA is used as a flame retardant in semiconductor packages" and "prepares an individual "chip" for incorporation into a circuit board used in a finished electronic device (e.g., mobile phone, computer, automobile, etc.)" (Semiconductor Industry Association (SIA)).

EPA Regulatory Docket for TBBPA: EPA-HQ-OPPT-2018-0462, https://www.regulations.gov/docket/EPA-HQ-OPPT-2018-0462
- IPC Comments: EPA-HQ-OPPT-2018-0462-0031
- ACC Comments: EPA-HQ-OPPT-2018-0462-0038
- Albemarle Comments: EPA-HQ-OPPT-2018-0462-0029
- SIA Comments: EPA-HQ-OPPT-2018-0462-0036

[1] Defense Microelectronics Cross Functional Team (DMCFT) in concert with the Department of Commerce (see next slide)

[2] U.S. House of Representatives Armed Services Committee *Report of the Defense Critical Supply Chain Task Force (July 22, 2021)*

National and Economic Infrastructure (N&EI) Market



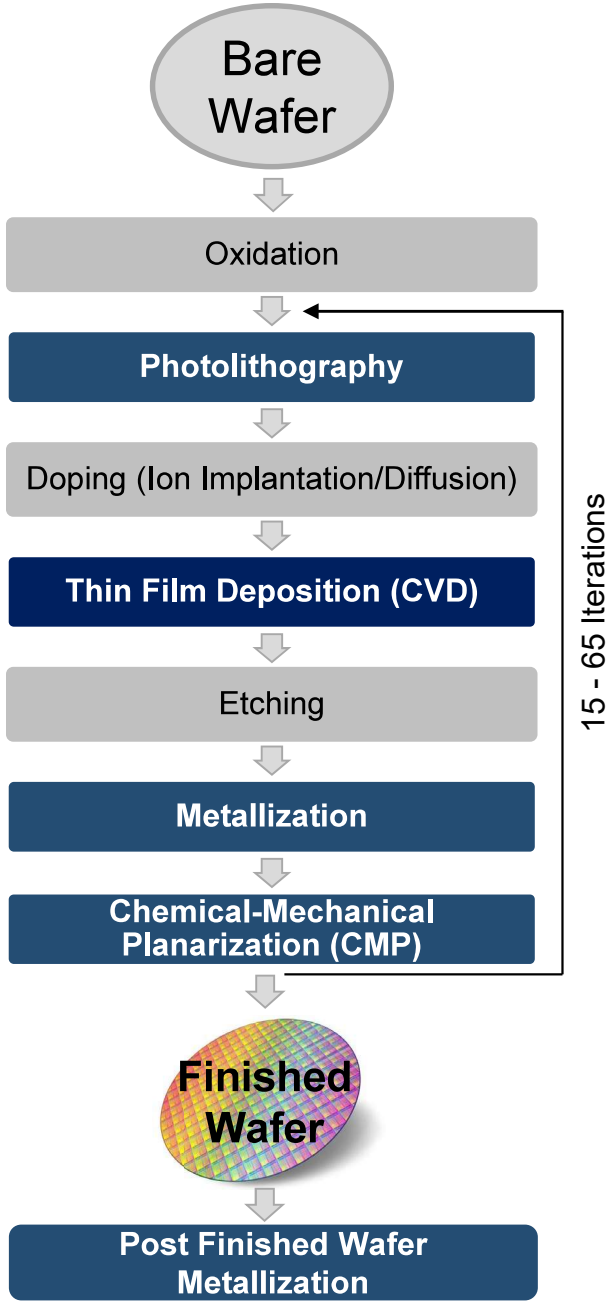
- Aggregated N&EI Microelectronics Market is ~ 32% of U.S. demand, 28% of global demand
- Access to measurably secure microelectronics is critical to our National and Economic Infrastructure, including DoD weapons systems
- Various TSCA §6 chemicals are critical to the manufacture of microelectronics components

"Whole of Nation" approach to access measurably secure microelectronics

Microelectronics *(cont'd)*

TSCA §6 chemicals remain key industrial materials in semiconductor manufacturing.

- Formaldehyde is used in the electroless copper-plating process as a processing aid in non-incorporative activities during the processing of printed circuit boards (IPC and SIA).
  - The plating process covers the inside of the through-holes in printed circuit boards with copper to create electrical continuity and contact between multiple layers of boards.
  - Formaldehyde may be found as a byproduct or impurity in certain photolithography and CMP formulations.
- D4 is used in enclosed radio frequency (RF) plasma-enhanced CVD processes to deposit a very thin, dielectric layer on the wafer surface (SIA).
  - The resulting dielectric layer does not include any D4 impurities.



Modified from SIA Comments

Docket on Formaldehyde: EPA-HQ-OPPT-2018-0438.
(https://www.regulations.gov/docket/EPA-HQ-OPPT-2018-0438)
- IPC Comments: EPA-HQ-OPPT-2018-0438-0050
- SIA Comments: EPA-HQ-OPPT-2018-0438-0053

Docket on D4: EPA-HQ-OPPT-2018-0443.
(https://www.regulations.gov/docket/EPA-HQ-OPPT-2018-0443)
- SIA Comments: EPA-HQ-OPPT-2018-0443-0009

Microelectronics *(cont'd)*

Additional applications tied to TSCA §6 chemicals identified in EPA Docket comments

Application	TSCA Chemical
Electronic cleaning applications (e.g., vapor degreasing, aerosol spray cleaner/degreaser, non-aerosol cleaner/degreaser, flux remover)	Trans-DCE
Plasticized PVC forms the coatings on wires and various plastic parts in electronic devices	DEHP, DBP, DINP
Found in building wire and power cable jacketing and electrical insulation and appliance cords	DIDP, DINP
Component in electrical tapes	DEHP
Constituent in adhesives critical to electrical/circuit boards.	DBP, BBP, 1,3-Butadiene
Found in printed wire assemblies	BBP
Component in dielectric paste	BBP

Castings and Forgings and Strategic and Critical Materials

- **Fluids are used for advanced metalworking, casting, and fabrication due to the temperature and wear resistance functionalities they provide.**
  - Mold release chemicals are applied to mold hardware to prevent the composites from strongly adhering to the mold hardware during cure.
    - Trans-DCE is present in the mold release chemicals and release films typically used in composite manufacturing processes.
- **BBP and DIBP were mentioned in EPA's scope documents as being tied to the following casting COUs:**
  - BBP
    - Industrial/Commercial Use: Castings
    - Industrial/Commercial Use: Other Uses – Plastic and rubber products not covered elsewhere (e.g., component of compound (resin) used to cast models)
  - DIBP
    - Industrial Use: Adhesive and Sealants
      - AIA commented that the major use of DIBP is in casting sealant.[1]
- **EPA's Final Use Report for DIDP mentioned that Fibre Glast Developments Corp. identified DIDP as an ingredient in an industrial urethane casting resin (hardener) for automobile, aircraft and marine parts, and tooling applications.[2]**
- **There are gaps in our understanding of the applications of TSCA chemicals within these sectors. Applications may occur so far upstream in the supply chain to make it difficult to gather information from DoD information resources.**

[1] AIA Comment on DIBP submitted to Docket EPA-HQ-OPPT-2018-0434. https://www.regulations.gov/comment/EPA-HQ-OPPT-2018-0434-0007
[2] EPA Final Use Report for DIDP (August 2021). https://www.epa.gov/system/files/documents/2021-08/casrn-26761-40-0_diisodecyl-phthalate_usereport_final.pdf

Additional Critical Applications

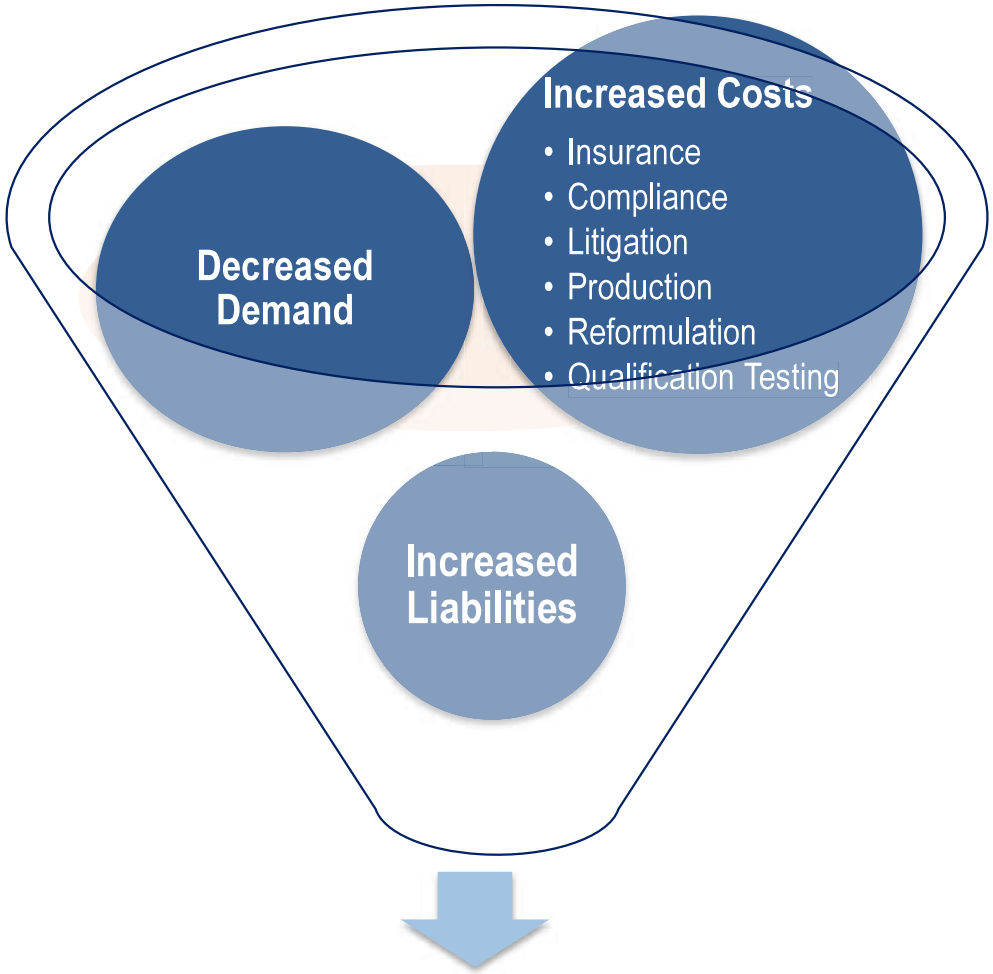
Use in tape, cables and connectors	Oils, greases, fluids, and lubricants	Precision cleaning fluids	Degreasing/cleaning fluids
Adhesives	Sealing Compounds	Inspection Fluids	Insulation and foam blowing
Resins for specialty materials	Textiles	Construction materials	Transportation

Critical Sectors and Applications Crosswalk[1]

	Chemical	Kinetic Capabilities	Energy Storage and Battery	Microelectronics	Castings and Forgings and Strategic and Critical Materials	Use in tapes, cables, and connectors	Oils, greases, fluids, and lubricants	Precision cleaning fluids	Degreasing/ cleaning fluids	Adhesives	Sealing compounds	Inspection fluids	Insulation and foam blowing	Resins for specialty materials	Paints and coatings	Textiles	Construction materials	Transportation
FR	TBBPA		X	X		X				X				X	X	X	X	X
	TCEP												X	X	X	X	X	X
	TPP	X					X			X		X	X	X	X	X	X	X
Phthalate	BBP			X	X	X	X			X	X					X	X	X
	DBP	X		X						X	X	X		X	X			
	DCHP									X					X	X	X	X
	DEHP	X	X	X		X				X	X		X	X	X	X	X	X
	DIBP				X					X	X				X	X	X	X
	DIDP	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X
	DINP	X		X		X	X		X	X				X	X	X	X	X
Solvent	1,1-DCA		X[2]							X								
	1,2-DCA						X		X	X				X	X			
	1,2-DCP																	
	1,1,2-TCA									X								
	Trans-DCE			X	X		X	X	X	X		X						
Other	1,3-Butadiene	X	X[3]	X		X	X			X	X			X	X		X	X
	Ethylene Dibromide						X											
	Formaldehyde	X		X			X			X	X		X	X	X	X	X	X
	HHCB																	
	D4	X		X				X	X[4]	X	X				X	X		X
	o-DCB						X		X					X				
	p-DCB						X		X					X				
	Phthalic Anhydride	X					X			X	X			X	X	X	X	X
	OTNE																	

[1] Unless otherwise noted below, the chemical uses were noted in documents publicly available in EPA's TSCA regulatory dockets (e.g. EPA Scope documents, EPA Final Use reports, DIB comments submitted to the dockets). See https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/ongoing-and-completed-chemical-risk-evaluations-under for Docket numbers.
[2] 1,1-DCA is an intermediate used to form vinyl chloride (https://www.epa.gov/sites/default/files/2016-09/documents/ethylidene-dichloride.pdf), which is used to form battery binders (https://cen.acs.org/materials/polymers/Solvay-Orbia-make-battery-binder/100/web/2022/11).
[3] https://chemistry-europe.onlinelibrary.wiley.com/doi/full/10.1002/celc.202300651.
[4] NAVSOLVE is qualified to MIL-PRF-32597. https://ecolink.com/wp-content/uploads/NAVSOLVE-PDS.pdf.

The Current Chemical Market Environment is Dynamic



These factors contribute to momentum that results in a *de facto ban* or product obsolescence.

Market forces are directly impacting mission capability by limiting the DoD's supply chain of mission critical products.

Commercial entities may exit the market even when there's a defense exemption.

Manufacturers may voluntarily exit the market, sometimes discontinuing products with no available alternatives. Chemical obsolescence drives product obsolescence, which can impact the availability of some niche market, defense-related products.

EPA Regulatory Docket Comments

- **Aerospace Industries Association (AIA) commented on 19 of the 20 TSCA high priority chemicals.[1]**
  - Majority of the chemicals were listed to be "qualified for use in federal, military, industry and company proprietary specifications."
  - "If this substance cannot be used, the industry would need to conduct research to reformulate or develop a product with equivalent performance and characteristics. Aerospace products are extremely complex and a qualified drop-in substitution with identical or superior performance is not always guaranteed or readily available."
- **NASA shared similar critical applications as DoD and commented on 13 of the 20 high priority chemicals.[2]**
- **Electronics industry – including IPC, SIA, Albemarle, Huntsman, and ITW Contamination Control Electronics – commented on electronic applications related to TBBPA, formaldehyde, D4, and trans-DCE.[3,4,5,6]**

[1] Comment provided by AIA. 19 June 2019. https://www.regulations.gov/document/EPA-HQ-OPPT-2018-0465-0006.
[2] Comment provided by NASA. 26 May 2020. https://www.regulations.gov/comment/EPA-HQ-OPPT-2018-0462-0039.
[3] Docket for TBBPA: EPA-HQ-OPPT-2018-0462. (https://www.regulations.gov/docket/EPA-HQ-OPPT-2018-0462)
[4] Docket on formaldehyde: EPA-HQ-OPPT-2018-0438. (https://www.regulations.gov/docket/EPA-HQ-OPPT-2018-0438)
[5] Docket on D4: EPA-HQ-OPPT-2018-0443. (https://www.regulations.gov/docket/EPA-HQ-OPPT-2018-0443)
[6] Docket on trans-DCE: EPA-HQ-OPPT-2018-0465. (https://www.regulations.gov/docket/EPA-HQ-OPPT-2018-0465)

EPA Risk Management under TSCA §6(a)

If at the end of the risk evaluation process EPA determines that a chemical presents an unreasonable risk of injury to health or the environment, the agency must start the risk management process to reduce or eliminate these risks. **EPA can take several actions, alone or in combination, to address unreasonable risks:**

- Prohibit or otherwise restrict the manufacture, processing, or distribution in commerce of the substance or mixture entirely or for a particular use.
- Limit the amount of the substance or mixture that may be manufactured, processed, or distributed for a particular use or above a set concentration for a particular use.
- Require adequate minimum warnings and instructions with respect to its use, distribution in commerce, or disposal.
- Require recordkeeping, monitoring, or testing by manufacturers and processors.
- Prohibit or regulate the manner or method of commercial use which may include the establishment of a workplace chemical protection program with a binding occupational Existing Chemical Exposure Limit (ECEL).
- Prohibit or regulate manner or method of disposal.
- Direct manufacturers/processors to give notice of the determination of risk to distributors and users and replace or repurchase the substance or mixture.

Conclusions

- Many of the TSCA §6 high priority chemicals undergoing risk evaluation examined in this briefing have numerous mission critical defense applications.
  - EPA risk management rulemakings could ban or restrict these uses if they are determined to pose unreasonable risk of injury to health or the environment.
  - Many of these high priority chemicals serve as alternatives to chemicals being restricted under current TSCA §6(a) risk management rulemakings for the TSCA 10 high priority chemicals. Thus, future rulemakings will place added pressure on the dwindling number of chemicals that provide the necessary functionalities to products and materials critical to weapon systems and platforms.
- The Department engages with EPA as early as possible on critical conditions of use or applications, but DoD's ability to share information is limited by the level of detail in supplier disclosures.
- The Department is preparing to review the draft TSCA §6 risk evaluations in FY 2025 and will engage in E.O. 12866 interagency review of EPA's TSCA risk management rulemakings.
- The Department will continue efforts to learn about more critical chemical applications within the DoD as well as the DIB.