

2021

TSCA

UNITED STATES (U.S.)
EPA-ISSUED FINAL
RULES REGARDING
FIVE PBT CHEMICALS



WHAT'S HAPPENING

On January 6, 2021, the U.S. Environmental Protection Agency (EPA) published final rules under Section 6(h) of the Toxic Substances Control Act (TSCA), for five persistent, bioaccumulative, and toxic chemicals (PBTs):

1 DecaBDE

Decabromodiphenyl ether

CAS Number:
1163-19-5



2 PIP (3:1)

Phenol, isopropylated phosphate (3:1)

CAS Number:
68937-41-7



3 2,4-6-TTBP

2,4,6-tris(tert-butyl)phenol

CAS Number:
732-26-3



4 HCBBD

Hexachlorobutadiene

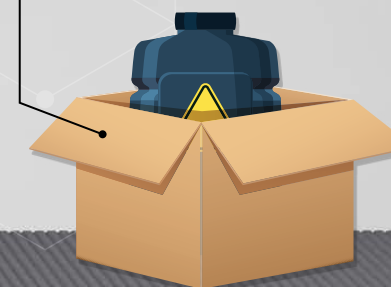
CAS Number:
87-68-3



5 PCTP

Pentachlorothiophenol

CAS Number:
133-49-3





WHAT'S THE PURPOSE

On March 8, 2021, EPA announced a 60-day public comment period to collect additional input on these final rules, and accepted comments until 17 May 2021.



The United States Toxic Substances Control Act (TSCA) regulates new and existing chemical substances, with the aim of protecting human health and the environment.

It was enacted on 11 October 1976 by the EPA. TSCA regulates most chemical substances although there are some exemptions.



The TSCA regulation was revised in 2016 by the Frank R. Lautenberg Chemical Safety for the 21st Century Act. These revisions impacted how chemicals are managed, tracked, evaluated, and disclosed.



THE REGULATIONS INCLUDE:

- Mandatory requirements for EPA to evaluate existing chemicals with clear and enforceable deadlines
- Risk-based chemicals assessments
- Increased public transparency for chemical information; and
- Consistent source of funding for EPA to carry out the responsibilities under this new act

Part 751 of the United States Code of Federal Regulations (CFR) establishes requirements pursuant to section 6(a) of TSCA regulating the manufacture/ import, processing, distribution in commerce, use, or disposal of certain chemical substances and mixtures.



The purpose is to address unreasonable risks associated with chemical substances or mixtures. 40 CFR 751.401 prohibited and restricted the manufacturing, processing, and distribution in commerce of five persistent, bioaccumulative, and toxic chemicals in accordance with section 6(h) of TSCA.

§751.401 GENERAL

(a) This subpart establishes prohibitions and restrictions on the manufacturing, processing, and distribution in commerce of persistent, bioaccumulative, and toxic chemicals in accordance with TSCA section 6(h), 15 U.S.C 2605(h).

(b) Unless otherwise specified in this subpart, prohibitions and restrictions of this subpart do not apply to the following activities:

(1) Distribution in commerce of any chemical substance, or any product or article that contains the chemical substance, that has previously been sold or supplied to an end user, i.e., any person that purchased or acquired the finished good for purposes other than resale. An example of an end user is a consumer who resells a product they no longer intend to use or who donates an article to charity.

(2) Disposal of any chemical substance, or any product or article that contains the chemical substance, as well as importation, processing and distribution in commerce of any chemical substance or any product or article that contains the chemical substance for purposes of disposal.

(3) Manufacturing, processing, distribution in commerce, and use of any chemical substance, or any product or article that contains the chemical substance, for research and development, as defined in §751.403.



DecaBDE

Decabromodiphenyl ether
CAS Number: 1163-19-5

SCOPE & REQUIREMENTS:

- ✓ Manufacturing, importing and processing of DecaBDE and products or articles containing DecaBDE – **prohibited^a**
(Effective: After 8 March 2021)
- ✓ Distribution in commerce of DecaBDE and products or articles containing DecaBDE – **prohibited**
(Effective: After 6 January 2022)
- ✓ Manufacturing, importing, processing and distribution in commerce for use in parts installed in and distributed as part of new aerospace vehicles, including replacement parts – **prohibited^b**
(Effective: After 8 January 2024)
- ✓ Recordkeeping: For manufacturers, importers, processors and distributors of DecaBDE and products or articles containing DecaBDE – business records, such as invoices and bills-of-lading must be kept for three years after record has been generated (not required for first footnote – see below) to comply with prohibitions and other requirements in § 751.405
(Effective: After 8 March 2021)

Records must include a statement that the decaBDE or the decaBDE-containing products or articles are in compliance with 40 CFR 751.405(a)



EXEMPTIONS & EXCLUSIONS:

^aExempts processing and distribution in commerce for the recycling of plastic containing decaBDE, and the products and articles made from such recycled plastics

Other specific-use phase-in prohibitions are included at 40 CFR 751.405(a)(2)

^bImporting, processing and distribution in commerce is prohibited for the following after the end of service lives of aerospace vehicles:

- After 8 January 2024 - Manufacturing/importing, processing, and distribution in commerce of decaBDE for use in parts installed in and distributed as part of new aerospace vehicles and parts to which decaBDE was added
- All manufacturing, processing and distribution in commerce of decaBDE for use in replacement parts and the replacement parts for aerospace vehicles containing DecaBDE



APPLICATIONS:



FLAME RETARDANT IN:

- Imported articles e.g. aerospace and automotive parts
- Wire and cable rubber casings
- Electronic equipment casings
- Textiles
- Building and construction materials





2

PIP (3:1)

Phenol, isopropylated phosphate (3:1)
CAS Number: 68937-41-7

SCOPE & REQUIREMENTS:

- ✔ Processing and distribution in commerce of PIP (3:1) and products or articles containing PIP (3:1) – **prohibited^a**
(Effective: After 8 March 2021)
- ✔ Releases to water from manufacturing, processing, and distribution in commerce of PIP (3:1) and products or articles containing PIP (3:1) – **prohibited**
(Effective: After 8 March 2021)
- ✔ Manufacturers, importers, processors and distributors of PIP (3:1) and products containing PIP (3:1) must notify their customers of the restrictions in 40 CFR 751.407, via Safety Data Sheets or labeling: Manufacturers/Importer – (not required for last two exclusions – see below)
(Effective: After March 8, 2021 and Processors/Distributors – After July 6, 2021)
- ✔ Processing and distribution in commerce of PIP (3:1) for use in photographic printing articles and PIP (3:1)-containing photographic printing articles – **prohibited**
(Effective: After 1 January 2022)
- ✔ Processing and distribution in commerce of PIP (3:1) for use in adhesives and sealants, PIP (3:1)-containing products for use in adhesives and sealants, and PIP (3:1) – containing adhesives and sealants – **prohibited**
(Effective: After 6 January 2025)
- ✔ Recordkeeping: For manufacturers, importers, processors and distributors of PIP (3:1) and products or articles containing PIP (3:1) – business records, such as invoices and bills-of-lading, must be kept for three years after record has been generated (not required for last two exclusions – see below) to comply with prohibitions and other requirements in § 751.407
(Effective: After 8 March 2021)



EXEMPTIONS & EXCLUSIONS:

- ^a • hydraulic fluids for aviation or to meet military specifications for safety and performance where no U.S. Department of Defense approved alternative chemical is available
- lubricants and greases
- new and replacement parts for motor and aerospace vehicles
- intermediate to produce cyanoacrylate adhesives in closed systems
- specialized engine air filters for locomotive and marine applications
- recycling plastic from products or articles containing PIP (3:1) (no new PIP (3:1) added during recycling process)
- finished products or articles made from recycled PIP (3:1) containing plastic



APPLICATIONS:



- Plasticizer
- Flame retardant
- Additive in hydraulic fluids, lubricants and greases
- Various industrial coatings, adhesives, and sealants



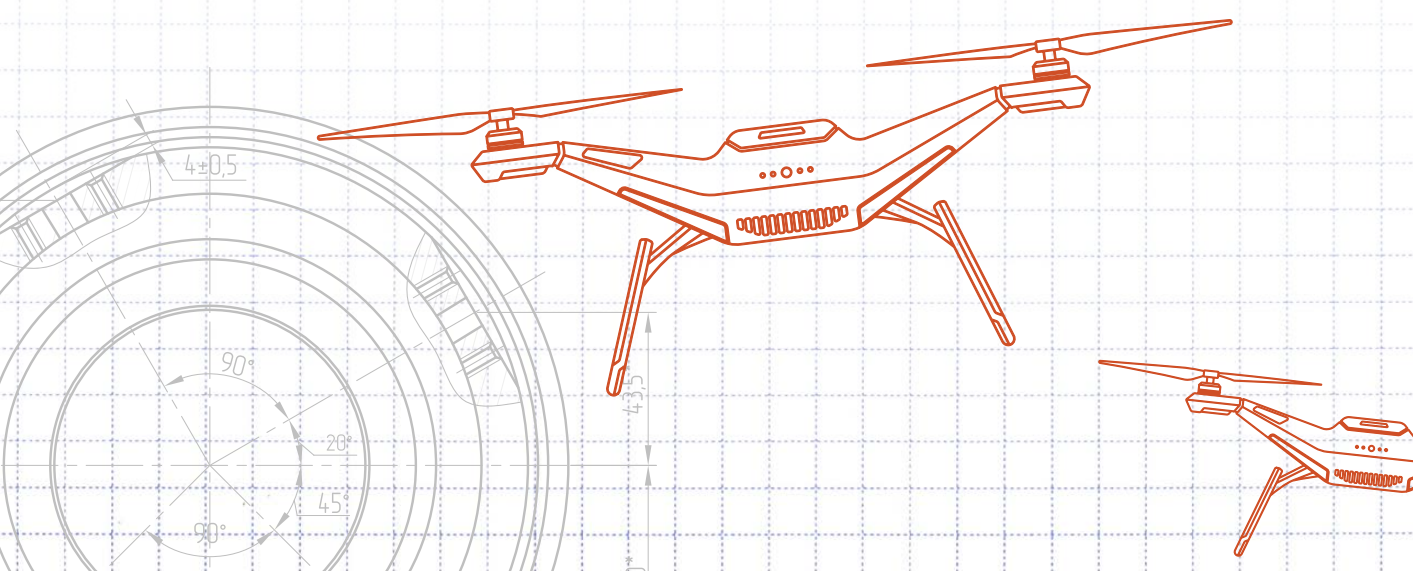
3

2,4-6-TTBP

2,4,6-tris(tert-butyl)phenol
CAS Number: 732-26-3

SCOPE & REQUIREMENTS:

- ✓ Distribution in commerce of containers (containing 2,4,6-TTBP) with a volume of less than 35 gallons – **prohibited** with concentrations above 0.3% by weight **(Effective: After 6 January 2026)**
- ✓ Processing and distribution in commerce of 2,4,6-TTBP oil and lubricant additives with concentrations above 0.3% by weight **(Effective: After 6 January 2026)**
- ✓ Recordkeeping: For distributors of 2,4,6-TTBP – business records, such as invoices and bills-of-lading, must be kept for three years after a record has been generated to comply with prohibitions and other requirements in § 751.409 **(Effective: After 6 January 2026)**



APPLICATIONS:



ANTIOXIDANT IN:

- Fuel additives
- Fuel injector cleaners
- Additives in oil and lubricants

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NATIONAL ARCHIVES

4

HCBD

Hexachlorobutadiene
CAS Number: 87-68-3

SCOPE & REQUIREMENTS:

- ✓ Manufacturing, importing, processing and distribution in commerce of HCBD and products or articles containing HCBD – **prohibited^a**
(Effective: After 8 March 2021)
- ✓ Recordkeeping: For manufacturers, importers, processors and distributors of HCBD and products or articles containing HCBD – business records, such as invoices and bills-of-lading, must be kept for three years after record has been generated to comply with prohibitions and other requirements in § 751.413
(Effective: After 8 March 2021)



EXEMPTIONS:

- ^a• unintentional production of HCBD as a byproduct whilst producing chlorinated solvents
- processing and distribution in commerce of HCBD for burning as a waste fuel



APPLICATIONS:



SOLVENT IN:

- Rubber manufacturing
- Hydraulic, heat transfer and/or transformer fluid

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PCTP

Pentachlorothiophenol
CAS Number: 133-49-3

SCOPE & REQUIREMENTS:

- ✓ Manufacturing, importing and processing of PCTP and products or articles containing PCTP – **prohibited** with concentrations greater than 1% by weight
(Effective: After 8 March 2021)
- ✓ Distribution in commerce of PCTP and products or articles containing PCTP – **prohibited** for concentrations greater than 1% by weight
(Effective: After 6 January 2022)
- ✓ Recordkeeping: For manufacturers, importers, processors and distributors of PCTP and products or articles containing PCTP – business records, such as invoices and bills-of-lading, must be kept for three years after record has been generated to comply with prohibitions and other requirements in § 751.411
(Effective: After 8 March 2021)



APPLICATIONS:

- Rubber industry



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INFORMATION





RELEVANT DATES

11 OCTOBER
1976

TSCA
effective

6 JANUARY
2021

EPA-issued final rules
regarding five PBT
chemicals published

5 FEBRUARY
2021

Final rules regarding
five PBT chemicals
effective

9 MARCH
2021

180-Day No Action
Assurance (NAA)^a
for PIP (3:1) effective

4 SEPTEMBER
2021

180-Day NAA
for PIP (3:1)
expiry



Other relevant dates (for specific scope, requirements, and exemptions) are included for each of the five PBT chemicals.



The EPA provided a 60-day public comment period on the chemicals which ended on 17 May 2021.

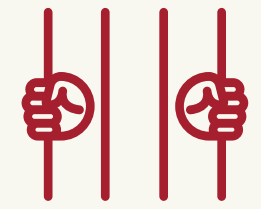


^a EPA issued a temporary 180-day “No Action Assurance (NAA)” exercising its enforcement discretion regarding the prohibitions on processing and distribution of PIP (3:1) for use in articles, and the articles to which PIP (3:1) has been added.

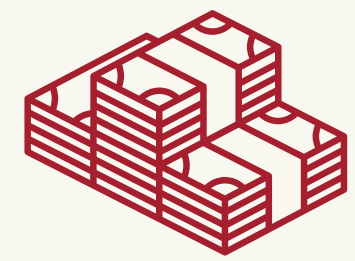


WORTH THE RISK?

Violation of TSCA could result in significant financial penalties—as well as manufacturing, importing and/or processing delays



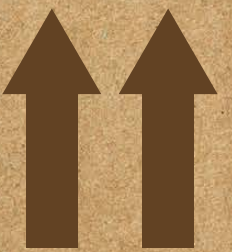
ONE YEAR
IN JAIL / \$50,000
PENALTY FOR KNOWING
OR WILLFUL VIOLATIONS



\$38,000
PER VIOLATION
PER DAY

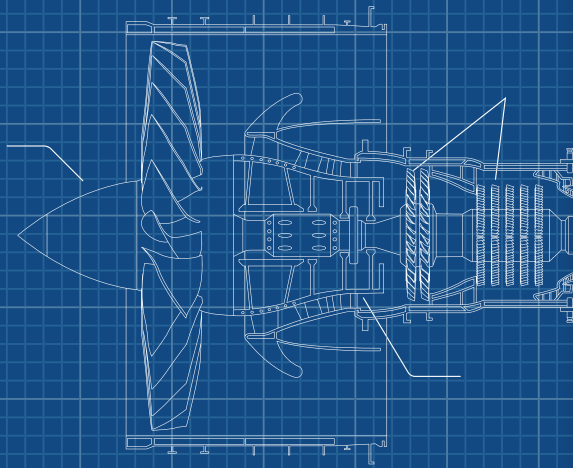


IMPACTS
TO AEROSPACE AND DEFENSE
INDUSTRY AS WELL AS THEIR
SUPPLY CHAIN—PARTS AND
FORMULATION OBSOLESCENCE





TRUE
— OR —
FALSE



“The No Action Assurance applies to all 5 PBT chemicals.”

✘ FALSE

On March 8, 2021 ([oeqa_naa_tsca_pip_3-1_rule_3_8_21.pdf \(epa.gov\)](#)), EPA issued a temporary 180-day “No Action Assurance” exercising its enforcement discretion regarding the prohibitions on processing and distribution of PIP (3:1) for use in articles, and the articles to which PIP (3:1) has been added.

“Processing and distribution in commerce of PIP (3:1) for use in adhesives and sealants, PIP (3:1)-containing products for use in adhesives and sealants, and PIP (3:1) containing adhesives and sealants is prohibited after 8 March, 2021.”

✘ FALSE

Although EPA has prohibited the processing and distribution in commerce of PIP 3:1, including in PIP 3:1-containing products or articles after 8 March 2021, EPA has allowed the processing and distribution in commerce of PIP 3:1 in adhesives and sealants until 6 January 2025. Refer to 40 CFR 751.407 for other phase-in dates and exclusions.

“After 8 January, 2024, all persons are prohibited from all manufacturing, processing, and distribution in commerce of decaBDE for use in parts installed in and distributed as part of new aerospace vehicles, and the parts to which decaBDE has been added for such vehicles.”

✔ TRUE

In accordance with 40 CFR 751.405(a)(iii), the manufacturing, processing, and distribution in commerce of decaBDE for this category is after January 8, 2024. Review all phase-in prohibition dates for decaBDE that appear in 40 CFR Part 751.405.

“Business records, such as invoices and bills-of-lading, must be kept for three years after the record has been generated for finished products or articles made from recycled plastic containing PIP (3:1).”

✘ FALSE

In accordance with 40 CFR 751.407(d)(4), this category along with the process of recycling plastic from products or articles containing PIP (3:1) (provided that no new PIP (3:1) is added during recycling process), is exempt from this recordkeeping requirement.



WHAT TO DO NEXT



01:

Review your chemical inventory and work with your supply chain to identify the presence of any of the 5 PBT chemicals, including ingredients in formulations, to ensure business continuity.

02:

Determine if your company manufactures, imports, processes, or distributes in commerce any of the 5 PBT chemicals, and if regulations impact the manner in which the chemical is used at your site. Determine if your company uses PBT chemicals in the manufacture of your articles/components.

03:

Be cognizant of effective dates.



RESOURCES



Summary of TSCA:

<https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act>

PBT Chemicals under TSCA Section 6(h):

<https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/persistent-bioaccumulative-and-toxic-pbt-chemicals-under#risk>

Final Rule for DecaBDE:

<https://www.federalregister.gov/documents/2021/01/06/2020-28686/decabromodiphenyl-ether-decabde-regulation-of-persistent-bioaccumulative-and-toxic-chemicals-under>

Final Rule for PIP (3:1):

<https://www.federalregister.gov/documents/2021/01/06/2020-28692/phenol-isopropylated-phosphate-31-pip-31-regulation-of-persistent-bioaccumulative-and-toxic>

Final Rule for 2,4,6-TTBP:

<https://www.federalregister.gov/documents/2021/01/06/2020-28690/246-tristert-butylphenol-246-ttbp-regulation-of-persistent-bioaccumulative-and-toxic-chemicals-under>

Final Rule for HCBd:

<https://www.federalregister.gov/documents/2021/01/06/2020-28693/hexachlorobutadiene-hcbd-regulation-of-persistent-bioaccumulative-and-toxic-chemicals-under-tsca>

Final Rule for PCTP:

<https://www.federalregister.gov/documents/2021/01/06/2020-28689/pentachlorothiophenol-pctp-regulation-of-persistent-bioaccumulative-and-toxic-chemicals-under-tsca>

No Action Assurance for PIP (3:1):

https://www.epa.gov/sites/production/files/2021-03/documents/oeca_naa_tsca_pip_3-1_rule_3_8_21.pdf

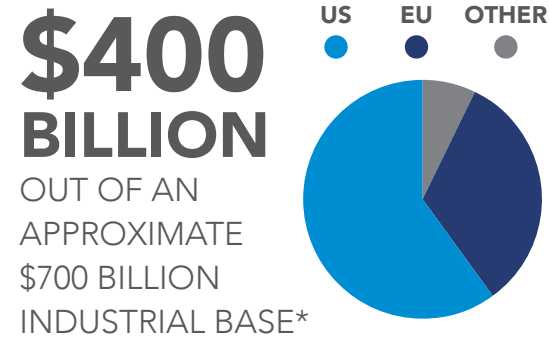
The International Aerospace Environmental Group (IAEG) is a non-profit organization of nearly 50 global aerospace companies who collaborate to deliver innovative solutions to benefit the global aerospace industry. IAEG serves as a collective space for industry leaders to develop voluntary consensus standards and solutions for environmental and chemical regulatory and sustainability challenges that all member companies face.

For 10 years, members have worked together to tackle climate change, champion chemical stewardship, engage the supply chain and foster environmental sustainability. IAEG endeavors to contribute to a responsible and sustainable aerospace industry. Every year we publish multiple regulatory alerts, topical reports, and factsheets. All resources are public and intended to share information on industry-wide opportunities for the promotion and adoption of global environmental requirements.

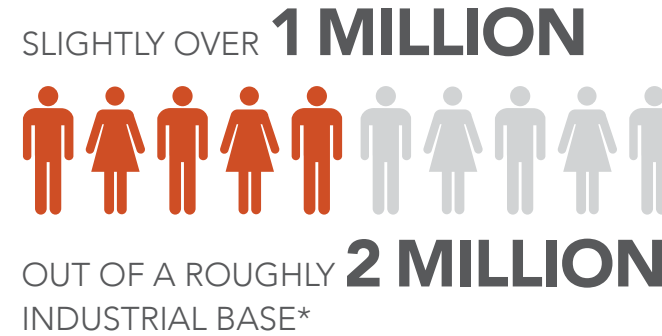
In addition, IAEG provides opportunities for wider education on environmental issues and the supply chain via our meeting agendas and bespoke seminars. IAEG is the only global aerospace organization collaborating across the industry to address environmental and sustainability aerospace challenges. With almost 50 member companies, IAEG represents more than half the global aerospace industry. In 2021 and beyond, we will expand and accelerate our impact on the industry and in the world. We're just getting started. Join us, as we change the future of aerospace.

For more information on IAEG and to see a full list of members, [visit our website today](#).

REVENUE FOOTPRINT



EMPLOYMENT FOOTPRINT



*Deloitte, 2014 Global aerospace and defense sector financial report

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GETTING STARTED*



IAEG
INTERNATIONAL AEROSPACE
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10-YEAR ANNIVERSARY