

VIA ELECTRONIC AND CERTIFIED MAIL – RETURN RECEIPT REQUESTED

April 9, 2021

Administrator Michael S. Regan U.S. Environmental Protection Agency Office of the Administrator, Mail Code 1101A 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460

Dear Administrator Regan:

On behalf of our clients, Clean Water Action, Defend Our Health, Sierra Club, Texas Environmental Justice Advocacy Services, and Toxic-Free Future, we write to alert you that EPA is in violation of section 313(e)(1) of the Emergency Planning and Community Right-to-Know Act ("EPCRA").¹ Specifically, EPA has failed to respond to a petition it received nearly seven years ago requesting the addition of 25 chemicals to the list of toxic chemicals included in EPCRA's Toxics Release Inventory ("TRI"),² despite a statutory deadline to act on such petitions within 180 days of receipt.³

Several of these chemicals are undergoing risk evaluation under the Toxic Substances Control Act ("TSCA") or are listed on the TSCA Work Plan. TRI data regarding releases of these chemicals is necessary for EPA to complete comprehensive risk evaluations that consider risks to all potentially exposed or susceptible subpopulations as TSCA requires. Further, TRI data on all the chemicals addressed in the 2014 Petition is necessary for communities affected by releases of the chemicals to protect their health and advocate for their interests.

We therefore request that EPA initiate rulemakings to add the yet-unlisted chemicals to the TRI list within sixty days. If EPA fails to respond to the petition within sixty days, Clean Water Action, Defend Our Health, Sierra Club, Texas Environmental Justice Advocacy Services, and Toxic-Free Future are prepared to file suit against the EPA and you, as its Administrator, for failure to take required action under EPCRA section 313(e)(1).⁴ This letter constitutes the notice of intent to sue required under section 326(d) of EPCRA.⁵

⁴ See 42 U.S.C. § 11023(e)(1).

¹ 42 U.S.C. § 11023(e)(1).

² See Letter from the Massachusetts Toxics Use Reduction Institute to the Honorable Gina McCarthy (May 6, 2014) (the "2014 Petition") (attached as Exhibit 1).

³ 42 U.S.C. § 11023(e)(1).

⁵ See 42 U.S.C. § 11046(d).

I. The TRI

Under section 313 of EPCRA, EPA must maintain and make public a database of information regarding the use, presence, treatment, and release of certain toxic chemicals.⁶ This database constitutes the TRI, and it is "intended to provide information to . . . governments and the public, including citizens of communities surrounding covered facilities."⁷ The data in the TRI are intended to inform individuals and communities about releases of toxic chemicals near them; "to assist governmental agencies, researchers, and other persons in the conduct of research and data gathering; to aid in the development of appropriate regulations, guidelines, and standards; and for other similar purposes."⁸

At any time, the Administrator may promulgate a rule adding a chemical to the TRI list if he determines that "there is sufficient evidence to establish" that the chemical satisfies statutory criteria focused on the chemical's potential to harm human health or the environment.⁹ EPCRA also allows "any person" to petition the Administrator to add a chemical to the TRI list because of the chemical's known or reasonably anticipated adverse effects on human health.¹⁰ Within 180 days after receiving a petition, the Administrator has a nondiscretionary duty to either "[i]nitiate a rulemaking to add or delete the chemical to the list" or "[p]ublish an explanation of why the petition is denied."¹¹ If the Administrator fails to respond to a listing petition within 180 days of receipt, "any person may commence a civil action on his own behalf against" the Administrator.¹²

II. The 2014 Petition

In May of 2014, the Toxics Use Reduction Institute ("TURI") at the University of Massachusetts Lowell petitioned EPA to add 25 toxic chemicals to the TRI that satisfy the statutory criteria for listing. TURI, a research and educational center established by Massachusetts' Toxics Use Reduction Act, relies heavily on the TRI for its work, as do many environmental justice and advocacy organizations.

The 2014 Petition explained that the 25 chemicals at issue are either presumed or known to be toxic due to their carcinogenicity or other chronic or acute adverse effects on human health or the environment and are present in consumer and industrial products as flame retardants, solvents, and other additives. For each of the chemicals on the 2014 Petition, TURI identified the specific EPCRA section 313(d)(2) criteria that was met and cited evidence supporting this, thereby establishing the basis for listing.

⁶ See 42 U.S.C. § 11023.

⁷ 42 U.S.C. § 11023(h).

⁸ Id.

⁹ 42 U.S.C. § 11023(d)(2).

¹⁰ See id. § 11023(e)(1).

¹¹ *Id*.

¹² 42 U.S.C. § 11046(a)(1)(B)(ii).

Despite the 2014 Petition's showing that these 25 chemicals satisfy the criteria for listing, only three—1-bromopropane, hexabromocyclododecane, and nonylphenol—have been added to the TRI. Since at least September 2016, EPA's website has said that "EPA is evaluating the 25 chemicals to determine if they meet the listing criteria of EPCRA section 313(d)(2) . . . [and] intends to propose the addition of any of the 25 chemicals that meet the EPCRA section 313(d)(2) criteria and for which reporting forms are expected to be filed."¹³ EPA has included a "Response to Petition From the Toxics Use Reduction Institute (TURI) to Add 25 Chemicals" in each of its biannual Unified Agendas since the Fall of 2016, but EPA has not yet initiated rulemakings to add the remaining 22 chemicals to the TRI or denied the petition as to those chemicals, despite having almost seven years to act.

III. EPA's Delay is Unlawful, Threatens Communities, and Undermines the Integrity of EPA's TSCA Risk Evaluations for the 2014 Petition Chemicals

EPA's failure to respond to the 2014 Petition by either "[i]nitiat[ing] rulemaking[s] to add or delete the chemical[s] to the list . . . [or] [p]ublish[ing] an explanation of why the petition is denied,"¹⁴ within 180 days violates the plain language of EPCRA and undermines it purposes.

As EPCRA states, TRI data "are intended to provide information to . . . governments and the public, including citizens of communities surrounding covered facilities."¹⁵ The data are made available to "inform persons"—including organizations—"about releases of toxic chemicals to the environment; to assist . . . researchers[] and other persons in the conduct of research and data gathering; to aid in the development of appropriate regulations, guidelines and standards; and for other similar purposes."¹⁶ TRI data are vital for keeping the public informed about chemical releases in their communities and for research, public education, and advocacy.¹⁷ EPCRA's citizen-suit provision reflects this congressional intent to facilitate public participation and promote an informed citizenry by allowing "[a]ny person" to sue over the Administrator's failure to respond to requests to add chemicals to the TRI.¹⁸

¹³ Toxics Use Reduction Institute (TURI) Petition to Add 25 Chemicals to the TRI List, EPA (Sept. 22, 2016), available at https://www.epa.gov/toxics-release-inventory-tri-program/toxics-use-reduction-institute-turi-petition-add-25-chemicals. As EPA recognizes, the Administrator has the authority to add chemicals to the TRI list based on any of the statutory criteria in section 313(d)(2) of EPCRA, 42 U.S.C. § 11023(d)(2). This is true even if EPA determines that it may not grant a citizen's petition under section 313(e)(1), *id.* at (e)(1), to list chemicals qualifying for inclusion under section 313(d)(2)(C), *id.* at (d)(2)(C). *Cf. Am. Chemistry Council v. Johnson*, 406 F.3d 738, 740 (D.C. Cir. 2005) ("Although § 11023(e)(1) mentions only subsections (A) and (B) of § 11023(d)(2), the parties apparently agree that it allows petitions to delist a chemical that fails to satisfy subsection (C), and we assume that to be the case for present purposes."). ¹⁴ 42 U.S.C. § 11023(e)(1).

¹⁵ *Id.* § 11023(h).

¹⁶ *Id.*; *see also* 40 C.F.R. § 372.1.

¹⁷ See 42 U.S.C. § 11023(h).

¹⁸ *Id.* § 11046(a)(1)(B).

Many of the chemicals on the petition are manufactured in the United States. For example, 1,3-dichloro-2-propanol; nitrilotriacetic acid, trisodium salt; and tris(1,3-dichloro-2-propyl) phosphate are manufactured or imported and present at facilities in the United States, and these chemicals are reasonably anticipated to cause cancer. And yet, because these chemicals are not listed on the TRI, communities surrounding facilities where the chemicals are present may not know about releases of the chemicals that affect their health and safety, in contravention of EPCRA's purposes.

EPA's unlawful failure to act on the 2014 Petition also threatens to undermine EPA's regulatory actions under TSCA. Several of the chemicals on the 2014 Petition are undergoing risk evaluation under TSCA, such as tris(2-chloroethyl) phosphate and 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta(g)-2-benzopyran; others, like triglycidyl isocyanurate and 4tert-Octylphenol=1,1,3,3-Tetramethyl-4-butylphenol, are listed on the TSCA Work Plan and may be subject to risk evaluation in the near future. TSCA requires EPA to determine through its risk evaluations whether a chemical substance poses unreasonable risks, including to potentially exposed and susceptible subpopulations like communities near polluting facilities, and then to eliminate such unreasonable risks through promulgation of a risk management rule.¹⁹ TRI data are critical for EPA to identify the communities neighboring facilities that are releasing the chemicals undergoing risk evaluation and fulfill its mandate under TSCA to evaluate risks specific to this potentially exposed or susceptible subpopulation. Only with full information can EPA make accurate determinations of unreasonable risk at the risk evaluation stage and identify the risks that must be eliminated at the risk management stage. EPA should grant the 2014 Petition promptly to ensure the integrity of EPA's ongoing TSCA risk evaluations and future risk management rules that rely on those evaluations.

The signatory organizations and their members depend upon the TRI encompassing all chemicals that are considered toxic under EPCRA and, in particular, the 22 yet-unlisted chemicals in the 2014 Petition, which meet EPCRA's criteria for inclusion. These organizations engage in numerous activities that depend upon TRI data, including advocacy for stronger laws and regulations addressing toxic exposures and public education about toxic exposures and associated risks to the environment and public health. The work of the signatory organizations is harmed by a TRI list that excludes chemicals known to be toxic, as an incomplete TRI hinders the organizations' ability to advocate on behalf of and educate their members and the communities surrounding release facilities and assist them in engaging with regulatory processes like the pending TSCA risk evaluations that affect their interests.

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EPA's failure to respond to the 2014 Petition within the 180-day statutory timeframe violates EPCRA,²⁰ and the agency's inexplicable inaction for more than seven years has deprived the signatory organizations and their members of information that is important to

¹⁹ 15 U.S.C. § 2605(b)(4)(A), (b)(4)(F)(i), (b)(4)(F)(iv). EPA is required to use the best available science and consider reasonably available information when making such risk determinations. *See id.* § 2625(h), (k). ²⁰ 42 U.S.C. § 11023.

pursuing their missions and protecting their health. The below-listed organizations are prepared to bring suit if this violation is not cured within sixty (60) days of your receipt of this letter:

Clean Water Action 1444 I Street NW Suite 400 Washington, DC 20005 202-895-0420

Defend Our Health 565 Congress Street Portland, Maine 04101 207-699-5795

Sierra Club 2101 Webster Street Suite 1300 Oakland, California 94612 415-977-5500

Texas Environmental Justice Advocacy Services 900 North Wayside Drive Houston, Texas 77023 713-371-7721

Toxic-Free Future 4649 Sunnyside Avenue N Suite 540 Seattle, Washington 98103 206-632-1545

If you would like to discuss the legal violation addressed in this letter or a proposal for resolving it promptly, please contact us using the information below.

Sincerely,

s/ Kelly Lester Kelly Lester, Esq. Earthjustice 48 Wall Street, 15th Floor New York, NY 10005 <u>klester@earthjusice.org</u> 212-823-4992

s/ Katherine O'Brien Katherine O'Brien, Esq. Earthjustice P.O. Box 4743 Bozeman, MT 59772-4743 kobrien@earthjustice.org 406-586-9692 x1929

Attorneys for Clean Water Action, Defend Our Health, Sierra Club, Texas Environmental Justice Advocacy Services, and Toxic-Free Future

cc: Dr. Michal Freedhoff Acting Assistant Administrator, Office of Chemical Safety and Pollution Prevention

Yvette Collazo Director, Office of Pollution Prevention and Toxics



Massachusetts Toxics Use Reduction Institute University of Massachusetts Lowell 600 Suffolk St., Suite 501 Lowell, MA 01854

May 6, 2014

The Honorable Gina McCarthy US Environmental Protection Agency Office of the Administrator, Mail code: 1101A 1200 Pennsylvania Avenue, N.W. Washington, DC 20460

Dear Administrator McCarthy,

As you know, the Massachusetts Toxics Use Reduction Act (TURA) program works with Massachusetts companies and communities to reduce the use of toxic and hazardous substances in the Commonwealth. The Toxics Use Reduction Institute (TURI) is responsible for working with our Science Advisory Board (SAB) and the other TURA program agencies and committees to help maintain the list of chemicals that are subject to reporting and planning. In that effort, we rely heavily on the US EPA's maintenance of the EPCRA 313 Toxics Release Inventory list, as well as on the CERCLA chemical list. Keeping these lists up to date with emerging health and environmental information is an EPA leadership role that we and other states have always valued tremendously. In recent years, however, we are increasingly observing that substances with emerging and known adverse health and environmental effects are not included on those lists.

There are some toxic chemicals that have consensus lists or reports on their health and environmental impacts, are likely used in industry, and yet are not on regulatorylists. For example, a recent TURI research project on carcinogens in Massachusetts¹ noted that there were 30 known or suspected carcinogens that were not on the TURA list of toxic or hazardous substances (consisting largely of the TRI and CERCLA chemical lists).

We are also concerned with the potential for regrettable substitutions, as companies move away from listed chemicals and substitute those that are not on the list. They infer the absence of the chemical from the list as confirmation that it is, indeed, safer. For example, n propyl bromide (nPB) is a solvent that is largely unregulated by the EPA, but has recently been added to the TURA chemical list. Our SAB evaluated existing information on nPB, as well as recent research and a recommendation by the National Toxicology Program, and recommended that it be added to the TURA chemical list. Further, the SAB recently recommended that it be designated as a Higher Hazard Substance with a lower reporting threshold – on a par with trichloroethylene, perchloroethylene and methylene chloride. We have found that companies are substituting nPB for those other listed halogenated solvents, and as a result of the absence of regulation, believe it is safe and are not controlling emissions or exposure in a manner that is protective of health and the environment.

¹ Opportunities for Cancer Prevention: Trends in the Use and Release of Carcinogens in Massachusetts," Methods and Policy Report #29, MA Toxics Use Reduction Institute, June 2013.

Therefore, we would like to propose that the U.S. EPA to now consider adding the attached list of 25 chemicals to the Toxics Release Inventory (TRI) chemical list (*List A: Proposed Additions to the TRI Chemical List*). These are known and well documented chemicals of concern. It is critical for protecting the health of our citizens that the release of these chemicals be monitored and reported through the TRI program. Each of the chemicals meets the following conditions:

- The chemical is not currently on the Toxics Release Inventory chemical list
- The chemical is a U.S. EPA designated High Production Volume (HPV) chemical that is produced or imported into the U.S. in quantities of 1 million pounds or more per year (as of listing revised January 2006)
- The chemical is used for industrial/manufacturing purposes
- The chemical meets at least one EPCRA Section 313(d)(2) criterion for chemical list additions
- There is supporting evidence from an organization about the hazard classification of the chemical from one of the following sources:
 - IARC: Group 1 (carcinogenic to humans), or Group 2a (possibly carcinogenic to humans)
 - National Toxicology Program (NTP): Known to be Human Carcinogen, Reasonably Anticipated to be Human Carcinogen
 - European Commission: Candidate List of Substances of Very High Concern for Authorization
 - International Chemical Secretariat (ChemSec): Substitute it Now List, Meets SVHC criteria as defined in the REACH regulation
 - California Prop 65: Classified as carcinogen as determined by State Qualified Expert

We are very eager to discuss this proposal with you and your relevant program staff. As a first step, Heather Tenney from our office will be speaking at the TRI Conference later this week, and will be happy to discuss it with you or the TRI program staff.

We realize that this is only one of your agency's many areas of responsibility and appreciate your willingness to make it a priority. We look forward to hearing from you; please feel free to contact us if you have any questions.

Best regards,

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Mike Ellenbecker Director, Toxics Use Reduction Institute

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Liz Harriman Deputy Director, Toxics Use Reduction Institute

List A: Proposed Additions to the TRI Chemical List

The Toxics Use Reduction Institute proposes that the U.S. EPA consider adding the following twenty-five chemicals to the Toxics Release Inventory (TRI) chemical list. These are known and well documented chemicals of concern. It is critical for protecting the health of our citizens that the release of these chemicals be monitored and reported through the TRI program. Each of the chemicals meets the following conditions:

- The chemical is not currently on the Toxics Release Inventory chemical list
- The chemical is a U.S. EPA designated High Production Volume chemical that is produced or imported into the U.S. in quantities of 1 million pounds or more per year (as of listing revised January 2006)
- The chemical is used for industrial/manufacturing purposes
- The chemical meets at least one EPCRA Section 313(d)(2) criterion for chemical list additions
- There is supporting evidence from an organization about the hazard classification of the chemical from one of the following sources:
 - > IARC: Group 1 (carcinogenic to humans), or Group 2a (possibly carcinogenic to humans)
 - > National Toxicology Program (NTP): Known to be Human Carcinogen, Reasonably Anticipated to be Human Carcinogen
 - European Commission: Candidate List of Substances of Very High Concern for Authorization
 - > International Chemical Secretariat (ChemSec): Substitute it Now List, Meets SVHC criteria as defined in the REACH regulation
 - > California Prop 65: Classified as carcinogen as determined by State Qualified Expert

For each of the proposed chemicals, the table below provides the following information: chemical name, chemical CAS #, chemical use, relevant EPCRA chemical list addition criteria, and supporting evidence.

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
Formamide	75-12-7	Used as a chemical intermediate and ionizing solvent; also used as a softener for glues, gums, and paper; [ACGIH]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
Hexahydrophthalic Anhydride	85-42-7	Used as a curing agent for epoxy resins and an intermediate for plasticizers and other chemicals; [Hawley] Used in the chemical, polymers, and paints, lacquers, and varnishes industries; [IUCLID]	(B)(ii)(IV) other chronic health effects	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for "Classified as a Respiratory Sensitizer Category 1"
	List A Pro	pposed Additions to TRI 1		5/5/2014

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
1,2,3- trichlorobenzene	87-61-6	Used as an intermediate, dye carrier, transformer fluid, solvent, coolant, and heat transfer medium; Used in lubricants and insecticides; [HSDB]	(C)(ii) its toxicity and persistence in the environment	This chemical is listed on Substitute it Now List: Meets SVHC criteria for "PBT" per the European Chemicals Bureau PBT Working Group
1,3-Dichloro-2- propanol	96-23-1	Used as a solvent (hard resins and nitrocellulose), cement for celluloid, binder for watercolors, and intermediate to make photographic and zapon lacquers; [HSDB]	(B)(i) Cancer or Teratogenic Effects	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Carcinogenic 1B: Presumed to have carcinogenic potential for humans
n-propyl bromide (1- bromopropane)	106-94-5	Used as a solvent substitute "to clean metals and electronics, in adhesive and coating applications, and in aerosol propellant applications." [ACGIH]	(B)(i) Cancer or Teratogenic Effects	This chemical has been recommended by NTP for classification as reasonably anticipated to be human carcinogen.
Aminoethylethanola mine	111-41-1	Used as a chemical intermediate, textile finishing compound, and additive to oils in metal cutting; [HSDB] Occupational asthma reported in solderer and cable jointer; [Malo]	(B)(ii)(I) reproductive dysfunctions	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Toxic to Reproduction 1B: Presumed human reproductive toxicant
Tris(2-chloroethyl) phosphate	115-96-8	"Flame retardant in plastics, especially in flexible foams used in automobiles and furniture, and in rigid foams used for building insulation." [IARC]	(B)(ii)(l) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
N-methylformamide	123-39-7	Used to make pesticides and methyl isocyanate and as an extraction solvent for aromatic hydrocarbons; [HSDB] Photodegradation product of Fluridone (herbicide) and metabolite of dimethylformamide (CAS# 68-12-2); [REPROTOX]	(B)(ii)(I) reproductive dysfunctions	This chemical is listed as Substitute it Now List: Meets SVHC criteria for Toxic to Reproduction 1B: Presumed human reproductive toxicant
1,1'- Azobis(formamide)	123-77-3	A blowing or foaming agent, added to increase porosity, used in the manufacturing of plastics and rubbers; Also used as a bleaching and maturing agent in cereal flour (commercial baking) and to produce auto exhaust catalysts; [HSDB]	(B)(ii)(IV) other chronic health effects	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for "Classified as a Respiratory Sensitizer Category 1"

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
N,N- dimethylacetamide	127-19-5	Used as a solvent for many different purposes (paint stripping, extraction, spectroscopy, crystallization, but mainly to make synthetic organic fibers); [ACGIH] Used as a solvent in plastics, resins, and gums; Also used as a catalyst and paint remover; [Hawley] Used in synthetic fiber and resin industries; Used as a solvent in elastane fiber factories; [Reference #1]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
4-tert- Octylphenol=1,1,3,3- Tetramethyl-4- butylphenol	140-66-9	Used as intermediate for surfactants and other compounds; [HSDB] Used as intermediate for resins, rubber additives, antioxidants, fuel oil stabilizers, adhesives, dyestuffs, fungicides, and bactericides; Also used for vulcanizing synthetic rubber (sulfide derivative) and in airplane fuel; [eChemPortal: SIDSUNEP]	(C)(i) its toxicity	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Aquatic Acute 1: Very toxic to aquatic life, and Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects
Cyclododecane	294-62-2	Used as an intermediate for the production of chemicals to make polyamides, polyesters, synthetic lubricating oils, and nylon 12; as a high-purity solvent; as a mothproofing agent; [HSDB]	(C)(ii) its toxicity and persistence in the environment	This chemical is listed on Substitute it Now List: Meets SVHC criteria for "PBT" per the European Chemicals Bureau PBT Working Group
2,3-dinitrotoluene	602-01-7	No results found in HAZMAP (It is used primarily as organic syntheses, a raw material of toluizine, dyes, and an intermediate, compound of explosive. https://www.env.go.jp/en/chemi/chemicals/profile_erac/profile5/pf1- 13.pdf) (Most DNT is used in the production of toluene diisocyanate, which is used to produce flexible polyurethane foams. DNT is hydrogenated to produce toluenediamine, which in turn is phosgenated to give toluene diisocyanate. In this way, about 1.4 billion kilograms are produced annually, as of the years 1999–2000.[3] Other uses include the explosives industry. It is not used by itself as an explosive, but some of the production is converted to TNT. Dinitrotoluene is frequently used as a plasticizer, deterrent coating, and burn rate modifier in propellants (e.g., smokeless gunpowders). As it is carcinogenic[citation needed] and toxic, modern formulations tend to avoid its use. In this application it is often used together with dibutyl phthalate. Source: http://en.wikipedia.org/wiki/2,4-Dinitrotoluene)	(C)(i) its toxicity	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Aquatic Acute 1: Very toxic to aquatic life, and Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
2,5-dinitrotoluene	619-15-8	No results found in HAZMAP (It is used primarily as organic syntheses, a raw material of toluizine, dyes, and an intermediate, compound of explosive. https://www.env.go.jp/en/chemi/chemicals/profile_erac/profile5/pf1- 13.pdf)	(B)(i) Cancer or Teratogenic Effects	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Carcinogen 1B: Presumed to have carcinogenic potential for humans
Dibutyltin dichloride (DBTC)	683-18-1	Used as organotin intermediate, a general-purpose stabilizers for polyvinyl chloride, an esterification catalyst, and a veterinary vermicide and tapeworm remedy; [HSDB]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
1,3,4,6,7,8- Hexahydro- 4,6,6,7,8,8- hexamethylcyclopen ta(g)-2-benzopyran	1222-05-5	Used as fragrance agent in perfumes, soaps, cosmetics, and detergents; [Merck Index]	(C)(i) its toxicity	This Chemical is listed on Substitute it Now List: Meets SVHC criteria for Aquatic Acute 1: Very toxic to aquatic life, and Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects
Triglycidyl isocyanurate, TGIC,Teroxirone,Tris(epoxypropyl) isocyanurate	2451-62-9	Used in powder coatings containing less than 5% TGIC; [ACGIH] Occupational asthma and allergic contact dermatitis reported in workers manufacturing thermosetting paints; [Reference #1]	(B)(ii)(III) heritable genetic mutations	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Mutagenic 1B: Substances which should be regarded as if they induce heritable mutations in the germ cells of humans
Hexabromocyclodod ecane	3194-55-6	Used as a flame retardant in polystyrene foam and low- density polystyrene foam; Also used in high-impact polystyrene, styrene-acrylonitrile resins, adhesives, and coatings; [HSDB]	(C)(ii) its toxicity and persistence in the environment	This chemical is listed on Substitute it Now List: Meets SVHC criteria for "PBT" per the European Chemicals Bureau PBT Working Group. Stockholm Convention POPS
Nitrilotriacetic acid, trisodium salt	5064-31-3	Used as chelating agent in bleaching and as a sequestrant builder; Also used in tanning, synthetic rubber, textiles, pharmaceuticals, low phosphate and phosphate-free detergents, and in boiler-water treatment; [HSDB] Used for extraction, refining, and processing of metals; in the paper-pulp-board industry; and as an additive to construction materials; [IUCLID]	(B)(i) Cancer or Teratogenic Effects	This chemical is listed as NTP: Reasonably anticipated to be human carcinogen

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
p-a,a,a- Tetrachlorotoluene	5216-25-1	Intermediate for pharmaceuticals, dyes, and other organic chemicals; [Hawley]	(B)(i) Cancer or Teratogenic Effects	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Carcinogen 1B: Presumed to have carcinogenic potential for humans
Tris(1,3-dichloro-2- propyl) phosphate (TDCPP)	13674-87-8	Used as a flame retardant (plastics, flexible urethane foams, and textile backcoatings) and plasticizer; [HSDB]	(B)(i) Cancer or Teratogenic Effects	California Prop 65 listed as a Carcinogen per state qualified expert (SQE)
Nonylphenol Note: EPA has issued a proposed rule for the addition of the nonylphenol category	25154-52-3	Used as a chemical intermediate, an additive to plastics and rubber, a stabilizer in drilling muds, a demulsifier in petroleum, and a disinfectant; [HSDB] Used in the chemical, leather processing, paper/pulp, polymers, and textiles industries; Used as a disinfectant, intermediate, lubricant additive, softener, stabilizer, surface-active agent, anti-oxidizing agent, and denaturing agent; [IUCLID]	(C)(i) its toxicity	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Aquatic Acute 1: Very toxic to aquatic life, and Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects
Trixylyl phosphate	25155-23-1	Used in flame retardants, plasticizes, and hydraulic fluids; [HSDB]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
Hexahydromethylpht halic anhydride	25550-51-0	Cyclic acid anhydrides: Used to make polyester and alkyd resins, plasticizers, and as epoxy resin hardeners; [Reference #1]	(B)(ii)(IV) other chronic health effects	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for "Classified as a Respiratory Sensitizer Category 1"
Diphenyl ether, octabromo derivative	32536-52-0	Used as additive flame retardant; [HSDB] Used as flame retardant additive for polymers (mainly acrylonitrile- butadiene-styrene); Use is severely restricted in the EU; [eChemPortal: ESIS]	(B)(ii)(I) reproductive dysfunctions	This chemical is listed as Substitute it Now List: Meets SVHC criteria for Toxic to Reproduction 1B: Presumed human reproductive toxicant