# Regulated SOCs: Pesticides, Common Trade Names, and Related Chemicals

Chemical Name	Trade Name	Usage
Alachlor	Lasso, Pillarzo, Alatox-480, Alazine, ALA, Lozo, Lariat, Marksman, Freedom, Micro-Tech, Nudor Extra, Bronco, Alanex, Bullet, Stake, Shroud	-Herbicide on corn, soybeans, dry beans, and sunflowers -Threat to drinking water through runoff -Many formulations Cancelled -Restricted Use Pesticide (RUP)***
Aldicarb, Aldicarb Sulfoxide, and Aldicarb Sulfone	Temik, UC21149	-Insecticide for crops, particularly potatoes but also grain, peanuts, soybeans, and sugar-beet.  - All products and uses banned in Rhode Island
Atrazine**	Aatrex, Aktikon, Atrazinax, Atratol, Fenamin, Aatrex, Prozine, Gesaprim, Zeaphos, Nudor Extra, Atramet Combi, Crisazin-Crisatrina, Kombi, Drexel, Rhino, Farmco Anizine, Aaa Flowable, Marksman, Primextra, Bicep, Conquest, Candex, Extrazine, Vestal, Rapuzin, Pramatol, Surpass, Bullet, Buctril, Laddock	-Widely used herbicide on corn, sorghum, turf grass sod, Christmas trees, and non-crop land -Restricted Use Pesticide (RUP)*** -Algicide; pool, aquarium, spa agents -Many formulations Cancelled -Persistent in Groundwater
Benzo(a)pyrene	No trade name, a polyaromatic hydrocarbon, combustion byproduct	-Not a pesticide -Usually found in coal tar -Coal tar pitch volatiles
Carbofuran	Bay 70143, Crisfuran, Curaterr, Yaltox, Furadan, Carbodan, Carbosip, Chinufur, Kenofuran, Niagara	-Soil fumigant -Insecticide for potato, corn, soybean, and ornamentals -Banned on all crops in 2009
Chlordane	Forchlor, Kill-Ko, Sydane, Belt, Chlor Kil, Chlorotox, Corodane, Gold Crest C-100, Kilex Lindane, Kypchlo, Octachlor, Synklor, Termided, Topiclor 20, Velsicol 1068, Aspon-chlordate, Ortho-Klor, Niran, Termide, Chlorohepton	-Soil pesticide for corn and citrus crops -Termiticide for termite control -Banned for all uses besides termite control in 1980 -Highly persistent in environment -Banned for all uses in Rhode Island as of 1987
2,4-D**	2,4-Dichlorophenoxy acetic acid, Acme Main 4, Acme Butyl Ester 4, Acme LV 4, Acme LV 6, Agrotect, Amoxone, Aquakleen, Chlorozxone, Croprider, Crossbow, D50, Dinoxol, DMA-4, Dormone, Emulsamine BK, Emulsamine E-3, Estone, Fernesta, Fernimine, Fernoxone, Ferxone, Lawn-Keep, Macondray, Pennamine D, Planotox, Plantgard, Tributon, Weed-B-Gon, Weedar, Weedone, Weedmaster, Weed & Feed, Weedatul, Chipco Turf Herbicide D, DMA-4, Esterone 99, Formula 40, Spritz-Hormit, 2,4-D, Weed-Ag-Bar, Weedez Wonder Bar, Basagran, Acme Super Brush Killer 875, U 46 DP, Duplosan DP-D, Duplasan KV-Combi, Chipco Turf Kleen, 2 Plus 2, Actril DS, Mad, Gordon's Vegemec Vegetation Killer, Lentemul, SEE	-Herbicide for broadleaf weeds -Third most commonly used herbicide in North AmericaUsed on crops, primarily corn, and non-crop land including turf -May be combined with picloram -Tendency to leach from soil
Dalapon*	Dalapon-Na, Ded-Weed, Devipon, Gramevin, Revenge, Unipon, Dowpon M, Radapon, Basfapon, Basinex P and N, Revenge	-Herbicide for a broad variety of crops.  -Used to control grasses in crop and non crop land  -Threat to drinking water through runoff of contaminated areas.
Dibromochloro- propane (DBCP)	Nemafume, Nemanax, Nemaset, BBC 12, Fumazone, Nemagon, Nematocide, Oxy	-Soil fumigant for nematode control -Used on cucumbers, squash, cabbage, calulifower, carrots, pineapples and other cropsBanned for all uses in 1985 -Persistent in contaminated soil and groundwater
Di (2-ethylhexyl) adipate	DOA, a plasticizer	-Used as a plasticizer and vinyl resins compound -Applied as a solvent, aircraft lubricant, hydraulic fluid, makeups -Primary concern from factory discharge to water systems and electrical wires used in wells
Di (2-ethylhexyl) phthalates	DOP, DEHP, BEHP, Bisoflex, Eviplast, Octoil, Latimol, Sicol, a plasticizer, DMP, DEP, DAP, DPP, DBP, DIBP, DCP	-Used primarilyas a plasticizer for resins and Polyvinylchloride (PVC) -Used in Food Processing -Primary concern from factory discharge into water systems -Affinity to biologically accumulate

Chemical Name	Trade Name	Usage
Dinoseb	DNBP, Basanite, Elgetol 318, Helfire, Kiloseb, Nitropon C, Sinox General, Caldon, Chemox, Chemsect, Dinitro, DN-289, Dynamyte, Gebutox, Premerge, Subitex, Unicrop DNBP, Dinitro Weed Killer, Vertac, Dyanap, Spurge, Contact	-Selective pre-emergent herbicide on numerous crops such as orchards, vineyards, forage legumes, potato vines, seed crops, onions, garlic, peas, etcEffectively Banned in 1987 due to correlations with birth defects -Not readily Biodegradable -Primary concern is soil attenuation
<del>Dioxin</del> (State-wide waiver)	<del>2,3,7,8 Tetrachlorodibenzo р Dioxin</del>	preservative for cutting oil, resin emulsions, water-based paints, cosmetics, and inks byproduct of some manufacturing processes such as pulp mills or incinerators contaminated batches of 2,4 D and 2,4,5 T(Silvex)
Diquat (State-wide waiver)	Midstream, Actor, Dextrone, DNBP, Krop, Reglox, Aquacide, Dextrone, Weedtrin D, Klean, Preeglone, Proglone, Weedool, Pathclear	-herbicide used on aquatic weeds, and in non-crop areas -potato dessicant
Endothall (State-wide waiver)	Aquathol, Endothal Weed Killer, Hydout, Des i cate, Penco, Weedtrine, Byramin, Weedaway, Hydrothol, Niagrathal, Herbicide 273	-Herbicide used on algae and aquatic weeds,  -Defoliant for agricultural crops  -Dessicant for lucerne and potatos
Endrin	Hexadrin, Endrex, Endrisol, Nendren, Rid a Bird, Endrin-Methyl	-Herbicide -Insecticide/Pesticide used on Field crops -Most uses were banned in 1980 -Restricted Use Pesticide (RUP)*** -Threat to drinking water through runoff of contaminated areas
Ethylene Dibromide (EDB)	Bromofume, E-D-Bee, Kopfume, Nephis, Dowfume, Soilbrom, EDB	-Soil and grain fumigant used on vegetable and grain crops - Banned 1984 -Aquatic herbicide in combination with diquat -Additive to leaded gasoline –Discontinued with leaded gasoline ban -Used as an intermediate for dyes and Resins -Persistent in contaminated drinking water
Glyphosate* (State-wide waiver)	Roundup, Rodeo, Herbolex, Glycel, Honcho, Ranger, Sting, Hockey, Knockout, Shackle, Kleen up, Myster, Accord, Azural, Arcade, Expedite	non selective herbicide, controls many annual and perennial grasses and broadleaf weeds
Heptachlor	Drinox H-34, Heptamul, Heptox, H-60, Termide, Chlorohepton	-Termiticide -Agricultural and home uses banned in 1978 -Continued use in fire ant control, pad mounted electric power transformers and in underground communication cables
Heptachlor epoxide	None	-Degradation product of Heptachlor (above) -More toxic than Heptachlor
Hexachlorobenzene	Perchlorobenzene, Anticarie, Ceku C.B., HCB, BHC, Perchlorobenzene; Benzene Hexachloride	-Pesticide –Banned in 1965 -Formed as the byproduct of the manufacture of other chemicals -Attenuation in soil environments -Biologically Accumulates
Hexachloro- cyclopentadiene	Gamma BHL, Graphlox, Perchlorocyclopentadiene	Intermediate in the synthesis of cyclodiene insecticides     Primary concerns for oral and inhalation exposure     Threat to drinking water through factory discharge and emission residue.
Lindane (Gamma- BHC)	Agronexit, Silvanol, Forlin, Gamaphex, Gammex, Isotox, Lacco Hi Lin, Lacco Lin-O-Mulsion, Lindagam, Lin-O-Sol, Novigam, Agrox 3-Way, Gamatin, Germate, Vitavax, Grano, Landafor, Lintox, Nexit, Novigam, Lindafor, Gamma Hexachlorocyclohexan, gamma-HCH, Gamallin	-Insecticide used for fruit and vegetable crops (most uses restricted in 1983) -Currently used for treating wood inhabiting beetles -Restricted Use Pesticide -pet product for parasite control - Primary concerns are oral ingestion through contaminated crops, leaching to aquifer and runoff into surface water.

Chemical Name	Trade Name	Usage
Methoxychlor**	Double-M, Chemform, Flo Pro McSeed Protectant, Moxie, AlfaTox, DMDT, Dual, Pennant, Dueler, Medal, Ontract, Methoxcide, Dimethoxy-DDT, Methoxy-DDT	-Multi-use insecticide used on fruit and shad trees, vegetables, home gardens, around farm buildings, and pets Toxicity -All uses effectively Banned in 2003 -Primary concerns are physical exposure and drinking contaminated water from runoff
Oxamyl	DPX-1410, Vydate, Thioxamyl, N,N-Dimethyl-2-methyl-carbamoyloxino- 2-(dimethylthio) acetamide	-Insecticide, nematicide used for certain insects, mites, and/or nematodes -Used on many field crops, fruits and vegetables - Restricted Use Pesticide (RUP)*** -Primary threats to drinking water include run-off from contaminated areas and leaching into groundwater.
Picloram*	Amdon, Borolin, K-Pin, Access, Tordon, Grazon	-Systemic herbicide used deeply rooted or woody plants -Used for "right of way" weed control -Affinity to leach which poses a threat on ground and drinking water -Highly persistent in environment- Runoff of contaminated areas, also poses a threat to drinking water May be combined with 2,4-D - Restricted Use Pesticide (RUP)*** - Most products cancelled
Polychlorinated Biphenyls (PCBs)	Arochlor, Phenochlor, Kanechlor	-Used primarily in the electrical industry (transformers)- Banned in 1979 -Used in the dielectric fluid (non-food grade) of submersible well pump's capacitor – Banned in 1979 -Environmentally Persistent -Major concerns of contamination through the gradual leaking of fluid from older submersible pumps
Pentachlorophenol	Penta, Penwar, Pentacon, Penta Ready, Penta WR, Penta Plus 40, Penta EC 30, Penta Preservative Ready-to-Use, Glazd penta and Block penta, Penchlorol, Sinituho, Antimicrobial, Dow Pentachlorophenol DP-2, Dowicide EC-7, Priltox, Santobrite, Santophen, PCP, Chlorophen, Chlon, Dowicide 7	-Used as a biocide to control microorganisms – Banned for these uses in 1987  - Currently used as a wood preservative  - Restricted Use Pesticide  -Primary concerns for exposure are inhalation and oral consumption through contaminated water runoff.  -Persistence in finished drinking water
Simazine	Cekusan, Framed, Caliber 90, Simadex, Aquazin 80 W, Amizine, Simazol, Remtal SC, Pathclear	-Pre-emergence herbicide for control of most annual grasses, broad leaf weeds, corn, and common lawn weeds.  - Restricted Use Pesticide (RUP)***  -Used widely on deep-rooted crops such as artichokes, asparagus, berries, and citrus.  -Commonly combined with paraquat  -Primary concern for exposure is contaminated water runoff.  - Most products cancelled
Toxaphene	Camphoclor, Motox, Phenacide, Phenatox, Strobane T-90, Toxakil, Toxon 63, Attac, Motox, Phenatox, Polychloro camphene	-Widely used pesticide and herbicide on many food and non-food crops -Persistent in the EnvironmentBanned internationally in 2001 -Primary modern concerns include leaching from historically contaminated areas.
2,4,5-TP	2,4,5-Trichlorophenoxy propionic acid, Silvex, Aqua Vex, Frutone T, Kurosal, Weed-B-Gon, Amchem 2,4,5-TP, Ded-Weed, Double Strength, Kuron, Silvi-Rhap, T-Nox, Fruitone, Esteron, Brush-B-Gone, Fence Rider, Line Rider, Fenoprop	-Herbicide used on fence rows, rights of way, golf courses, Rice, bluegrass, sugarcane and aquatic waterways- Banned 1983 -Used extensively by Military -Primary modern concerns include gradual leaching from historically contaminated areas.

<sup>\*</sup>Commonly found at right-of-ways

<sup>\*\*</sup>Commonly found in households

 $<sup>\</sup>ensuremath{^{***}}\ensuremath{\mathsf{Restricted}}$  use as per RI Department of Environmental Management regulation



#### Department of Health

Office of Drinking Water Quality Room 209, Three Capitol Hill Providence, RI 02908-5097 www.health.ri.gov

## You Can Help! Please Complete The Activity-Use Survey!

### Why Am I Receiving A Survey?

This survey is part of a waiver application that a local public water system is providing to the RI Department of HEALTH. The waiver application allows a public water system to request a reduction in water monitoring requirements, specifically the testing of Synthetic Organic Chemicals (SOCs). As part of that application, the public water system needs to determine if regulated SOCs have been used, stored, or disposed of in the area. The survey was developed to help determine that information.

#### What Are Synthetic Organic Chemicals (SOCs)?

Synthetic Organic Chemicals (SOCs) are used as pesticides, insecticides, herbicides, fuel additives, and as other ingredients in manufacturing and industrial processes. They are generally toxic and can have significant health impacts; many are known carcinogens. The Environmental Protection Agency (EPA) amended the Safe Drinking Water Act in 1986 to require the periodic monitoring of regulated SOCs.

Because some SOCs are not used in certain areas, the EPA has given state drinking water programs the option of waiving monitoring for certain SOCs. All groundwater public water systems in Rhode Island, serving 3300 persons or fewer, are eligible to apply for monitoring waivers. Each waiver lasts for that three-year compliance period. A list of SOCs is being provided to you with a copy of the survey.

#### I'm Not A Public Water System Owner, So Why Am I Being Asked To Participate?

If you have been asked to complete a survey, it is because you own or manage a business or activity in the area of a public water system. The public water system cannot qualify for reduced water monitoring requirements unless they determine what SOCs have been used, stored, or disposed of in the area, and they cannot do that, without help from you.

#### Are All Businesses And Activities Around This Water System Being Asked To Complete This Survey?

No, only businesses and activities that are generally associated with the use, storage, or disposal of these chemicals need to be surveyed.

## If I Do Not Complete This Survey, Will The Public Water System Owner Be Penalized?

The RI Department of HEALTH is mandated by regulation to require all public water systems meeting certain criteria to test for these chemicals, unless the owner can demonstrate that the system should qualify for a waiver. If you do not complete this survey, the water system most likely will be required to monitor for any regulated chemical that is typically used for the activities present in the area surrounding the well(s).

#### Is HEALTH Suggesting That I Shouldn't Use These Chemicals?

No. In most cases, the RI Department of HEALTH will have no need to follow up on the information you provide. The intent of the information is merely to determine water monitoring requirements for the public water system, not to affect the practices of local businesses. However, in some cases, HEALTH might contact you to discuss the proper use or disposal of chemicals that are restricted or banned. We all need to recognize that our daily activities can impact local waters, including the water some people use for drinking.

## Where Do I Send The Survey Once I've Completed It?

The form must be returned to the public water system, and a self-addressed, stamped envelope should have been provided for your convenience. It is the public water system's responsibility to include the survey information in their waiver application.

## I Have Questions. Whom Should I Contact?

If you simply want to verify the authenticity of this survey, you may contact the RI Department of HEALTH, Office of Drinking Water Quality at 401.222.6867.

All other questions should be directed to the public water supply that contacted you with the survey.

## Section 1.

This survey is being sent by the following Public Water System (PWS):

PWS Name
PWS ID Number
PWS Owner's Name
PWS Owner's Address
PWS Owner's Phone/E-mail
PWS Operator's Name
PWS Operator's Address
PWS Operator's Phone/E-mail

# Section 2.

This survey is being sent because you own or operate a business or activity near the PWS's well(s) that has the potential to contribute Synthetic Organic Chemicals (SOCs) to that water supply.

Business/Activity Type (e.g. farm)	
Your Name	
Your Address	
Your Phone/E-mail	
Your Role Within That Business/ Activity	

## Section 3.

## **3A.** General Information

Business/Activity Size (e.g. acres, square feet, etc.)				
Length of Time In Operation				
Is the business/activity still in operation?	YES			NO
Has the soil or water been tested for pesticides at this site previously?	YES	NO		UNKNOWN

## 3B. SOC Use

Were any chemicals on the attached SOC list	YES	NO	UNKNOWN
used at this site in the last 10 years?	TES	NO	UINKINOVVIN

If you answered yes above, please list the information requested below:

2 Activity-Use Surve	_
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SOC Used Q		ntity Frequency of		f Use Purpose of		Purpose of Use	
	1						
o you anticipate using any of the future?	nese chemicals	YES			NO		UNKNOWN
C. SOC Storage							
ere any chemicals on the attace or the attace or the last 10 years.		YE	S		NO		UNKNOWN
you answered yes above, plea	se list the informa	ation request	ed below:				
SOC Stored		Quantity Curren			ntly or Previously Stored?		
D. SOC Disposal	·						
ere any chemicals on the attacking sposed of at this site in the last		YE	S		NO		UNKNOWN
you answered yes above, plea	se list the informa	ation request	ed below:				
SOC Disposed Of	Quant	ity		When			Where

This form was completed by: