

DRAFT Data Table for DEQ Toxics Focus List (7/24/2010)

CASRN	Chemical Name	Chemical Class/Uses	DEQ Lists	Toxicity-ECOSAR (mg/L)	Human Carcinogen?	Released (kg/yr)	Monitoring Data ? (Oregon data sources indicated in bold)*	Storage in Oregon? (State Fire Marshall data)	Haz Waste Generation? (DEQ reports)	Oregon Site Cleanup (ECSI Database)	Oregon Use Data (PURS - kg/yr)	Uses of Chemical	Sources & Pathways to the Environment
<b>Combustion &amp; Petroleum By-Products</b>													
N/A	Polycyclic Aromatic Hydrocarbons (PAHs) - as group	Combustion by-products	Focus only		Y(ROC2)	7054.5 (TRI) 682084 (EI)	<b>D, H, C, Q, S, X, JJ, KK</b>	-	N	E	-	-	Parking Lot Sealcoat has been shown to be a significant source of PAH's in urban stormwater. [Mahler, et. al., 2005] Loads from wastewater treatment plant effluents were typically <5% of total loads for most PAHs. There is no clear trend by compound, with the three-ring PAH fluorene and the five-ring PAH dibenz[a,h]anthracene having the largest fraction of loadings from wastewater (7.6 and 18.5% of the median loading value, respectively), and benzo[a]pyrene with the smallest fraction of loadings from wastewater (1.4%). Combined sewer overflows contribute about 5% of total Harbor PAH loadings. However, these estimates are very uncertain because there is such limited information on CSO flow rates in the region. For many of the PAHs investigated, stormwater runoff is the most important input pathway to the Harbor. Stormwater runoff contributes between 17 and 46% of total loads for different PAH compounds, with the higher MW PAHs contributing a slightly greater proportion to total inputs to the Harbor. Recovery of particulate matter from urban pavement runoff is high, in one study exceeding 90% per event (Sansalone and Kim, 2008), so it is not surprising that the high-MW PAHs, which tend to be particle bound, are prevalent in stormwater. However, the magnitude of the stormwater load is highly uncertain. The flow of runoff into the Harbor is expected to exhibit significant temporal variability, as changes in precipitation rate and ground permeability will change the amount of rainfall that percolates through the soil or evaporates vs. the amount that runs off into the Harbor. Although the annual average stormwater flow rate has been characterized fairly well, the concentration of PAHs in stormwater runoff is not well understood. The stormwater loadings described here are based on just two measurements of PAHs in stormwater outflows in New York, and 16 measurements in New Jersey. Atmospheric deposition seems to be an important route for the delivery of low-MW PAHs to the Harbor. For example, atmospheric inputs contribute 44% of total loads for the three-ring compound phenanthrene, but only about 2% of inputs of perylene, benzo[a]pyrene, and dibenz[a,h]anthracene. Tidal exchange is responsible for about 30% of PAH outflows from the Harbor. About two-thirds of the tidal exchange losses occur to the New York Bight, with the remainder occurring to the Long Island Sound. Tidal exchange is slightly more important as a loss process for the heaviest PAHs, including dibenz[a,h]anthracene and indeno[1,2,3-cd]pyrene, but this process's contribution to losses of low-MW PAHs such as phenanthrene and fluoranthene is less significant. However, the magnitude of tidal exchange is highly uncertain because the average annual tidal exchange flow rates are so poorly characterized for the Harbor. Not surprisingly, volatilization is a strong function of molecular weight. Evaporative losses from the surface of the Harbor back to the atmosphere contribute only about 10% or less to total losses of the high-MW PAHs, but this loss pathway contributes about 30% or more for the low-MW PAHs. Volatilization losses are fairly well characterized because there are high-quality monitoring data of aqueous-phase PAH concentrations in the Harbor, as well as reasonable estimates of the water-air exchange velocity based on tracer studies. Losses of high-MW PAHs from the Harbor are dominated by sedimentation, which may account for about half of total losses. However, sedimentation rates are not very well understood. This study uses a single annual net settling velocity to characterize loss due to sedimentation. Clearly, sedimentation in a large estuary is an extremely complex process, with sedimentation rates varying widely across the Harbor, and bioturbation, scour, and storm events contributing a great deal of temporal variability to sedimentation processes as well. [Rodenberg, et. al. 2010]
83329	Acenaphthene	Combustion by-products	Focus only	0.183	Y(ROC2)	7424 (EI)	<b>G, L, C, YYY</b>	-	N	E	-	Used as an intermediate in dye production, in the manufacture of pharmaceuticals and plastics, and as an insecticide and fungicide. Produced commercially in the United States. 4000kg imported into U.S. in 1986; in 1993, 9x105 kg of [acenaphthene, chrysene, cymene, indene] individual quantity not available. (ATSDR 1995)	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels. Found in high concentrations, relative to other PAHs, in total diesel emissions. Released to soil and water at wood treatment facilities, creosote, coal and gas refineries. (ATSDR 1995)
208-96-8	Acenaphthylene	Combustion by-products	Focus only	0.275	N (D)	100065.5 (EI)	<b>G, L, C</b>	-	N	E	-	No known commercial use, may be used for research. Produced commercially in the United States from catalytic degradation of acenaphthene (ATSDR 1995)	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels. Found in high concentrations, relative to other PAHs, in wood-burning emissions. Released to soil and water at wood treatment facilities, coal and gas refineries. (ATSDR 1995)
120-12-7	Anthracene	Combustion by-products	Focus & P3	0.145	N (D)	nr (TRI)	<b>G, L, C, S, RRR</b>	-	N	E	-	An intermediate in dye production, in the manufacture of synthetic fibers, and as a diluent for wood preservatives. Also used in smoke screens (pyrotechnics), as scintillation counter crystals, in organic semiconductor research, and to synthesize a chemotherapeutic agent (ATSDR, 1995).	Produced commercially by recovery from a coal tar distillation fraction (ATSDR, 1995). Primarily a ubiquitous product of incomplete combustion, with extensive natural and anthropogenic point and non-point sources. Has also been identified in emissions from open burning of scrap rubber tires, in high octane gasoline, in coke oven emissions, in emissions from asphalt processes, and in the mainstream smoke of cigarettes, cigar and pipe smoke, mainstream smoke of marijuana cigarettes, exhaust emissions from gasoline engines, samples of charcoal-broiled steaks, edible oils, surface water, tap water, waste water, and dried sediment of lakes.
56-55-3	Benzo(a)anthracene	Combustion by-products	Focus only	0.019	Y(B2)	52706 (EI)	<b>G, L, C, S</b>	-	N	E	-	None.	Released to the atmosphere as a by-product of combustion, found high relative concentrations in emissions from medical/pathological waste incineration, coke and aluminum plants. Found in coal tar. (ATSDR 1995) Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
50-32-8	Benzo(a)pyrene	Combustion by-products	Focus & P3	--	Y(B2)	13389 (EI)	<b>G, L, C, S, RRR, YYY</b>	-	N	E	-	Small amounts used in biochemical, biomedical, laboratory, and/or cancer research (ROC, 2005). Used in coal-tar-based asphalt sealant (Van Metre, et al. 2009)	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels. Dust from coal-tar-based sealed asphalt may move to adjacent soil or water.
205-99-2	Benzo(b)fluoranthene	Combustion by-products	Focus & P3	--	Y(B2)	4848 (EI)	<b>G, C, YYY</b>	-	N	E	-	None.	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
191-24-2	Benzo(g,h,i)perylene	Combustion by-products	Focus & P3	--	N(D)	88 (TRI) 39578	<b>G, L, C</b>	-	N	E	-	None.	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
205-82-3	Benzo(j)fluoranthene	Combustion by-products	Focus only	--	Y(ROC2)	0.12 (EI)	<b>C</b>	-	N	-	-	Not produced commercially in the United States. No known use except as research chemical.	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
207-08-9	Benzo(k)fluoranthene	Combustion by-products	Focus & P3	--	Y(B2)	19551.5 (EI)	<b>G, C, YYY</b>	-	N	E	-	Small amounts used in biochemical, biomedical, laboratory, and/or cancer research (ROC, 2005).	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
189-55-9	Benzo(r,s,t)pentaphene	Combustion by-products	Focus only	--	Y(ROC2)		-	-	N	-	-	--	--
218-01-9	Chrysene [benzo(a)phenanthrene]	Combustion by-products	Focus & P3	0.019	Y(B2)	50060 (EI)	<b>G, C, YYY</b>	-	N	E	-	Used in the production of some dyes.	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
226-36-8	Dibenz(a,h)acridine	Combustion by-products	Focus only	0.017	Y(ROC2)		-	-	N	-	-	--	--
53-70-3	Dibenz(a,h)anthracene	Combustion by-products	Focus & P3	0.002	Y(B2)	822 (EI)	<b>C, YYY</b>	-	N	E	-	Small amounts used in biochemical, biomedical, laboratory, and/or cancer research (ROC, 2005).	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
224-42-0	Dibenz(a,j)acridine	Combustion by-products	Focus only	0.017	Y(ROC2)		-	-	N	-	-	--	--
5385-75-1	Dibenzo(a,e)fluoranthene	Combustion by-products	Focus only	--	Y(ROC2)		-	-	N	-	-	--	--
192-65-4	Dibenzo(a,e)pyrene	Combustion by-products	Focus only	--	Y(ROC2)		-	-	N	-	-	--	--
189-64-0	Dibenzo(a,h)pyrene	Combustion by-products	Focus only	--	Y(ROC2)		-	-	N	-	-	--	--
191-30-0	Dibenzo(a,l)pyrene	Combustion by-products	Focus only	--	Y(2A)		-	-	N	-	-	--	--
194-59-2	Dibenzo(c,g)carbazole, 7H-	Combustion by-products	Focus only	0.019	Y(ROC2)		-	-	N	-	-	--	--
206-44-0	Fluoranthene [Benzo(j,k)fluorene]	Combustion by-products	Focus & P3	0.052	N(D)	59223 (EI)	<b>G, L, C, RRR</b>	-	N	E	-	Used as a lining material to protect drinking water pipes and storage tanks. Not produced commercially in the United States. 9440 kg imported into the United States in 1984. (ATSDR 1995)	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels. Found high relative concentrations in emissions from natural gas-powered appliances, municipal waste incineration and coke and aluminum plants. Found in coal tar. Leaches into soil in burned wildland areas from fire debris. Frequently detected in food. (ATSDR 1995)
86-73-7	Fluorene	Combustion by-products	Focus only	0.257	N(D)	nr (TRI) 14709 (EI)	<b>G, L, C, Q, S</b>	-	N	E	-	Used as a chemical intermediate in many chemical processes, in the formation of polyradicals for resins, and in the manufacture of dyestuffs. Not produced commercially in the United States. 9.1 kg imported into U.S. in 1984 (ATSDR 1995)	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels. Found in high concentrations, relative to other PAHs, in total diesel emissions. Released to soil and water at wood treatment facilities, creosote, coal and gas refineries. (ATSDR 1995)
193-39-5	Indeno(1,2,3-cd)pyrene	Combustion by-products	Focus & P3	0.002	Y(B2)	26849 (EI)	<b>G, C</b>	-	N	E	-	Small amounts used in biochemical, biomedical, laboratory, and/or cancer research (ROC, 2005).	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
56-49-5	Methylcholanthrene, 3-	Combustion by-products	Focus only	0.00109	Y(ROC2)	345 (EI)	<b>G</b>	-	N	-	-	--	--
3697-24-3	Methylchrysene, 5-	Combustion by-products	Focus only	0.007	Y(ROC2)	0.02 (EI)	<b>C</b>	-	N	-	-	--	--
832-69-9	Methylphenanthrene, 1-	Combustion by-products	Focus & P3	0.053	Y(ROC2)	10345 (EI)	<b>L, C</b>	-	N	-	-	None.	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels. Human exposure occurs primarily through the smoking of tobacco, inhalation of polluted air and by ingestion of food and water
2381-21-7	Methylpyrene, 1-	Combustion by-products	Focus & P3	0.019	Y(ROC2)	61071 (EI)	<b>C</b>	-	N	-	-	Minor uses as a research reagent	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels. Found in cigarette smoke, car exhaust, cellulose pyrolysates, and as a pollutant in oysters, crabs, and finfish.
5522-43-0	Nitropyrene, 1-	Combustion by-products	Focus only	--	Y(ROC2)		<b>G</b>	-	N	-	-	--	--
85-01-8	Phenanthrene	Combustion by-products	Focus & P3	0.145	N(D)	nr (TRI)	<b>G, L, C, S</b>	-	N	E	-	None.	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels.
129-00-0	Pyrene	Combustion by-products	Focus only	0.052	N(D)		<b>G, L, C, Q, S, RRR, YYY</b>	-	N	E	-	Not produced commercially in the United States. No known use except as research chemical. 57400kg imported into U.S. in 1985 (ATSDR 1995)	Ubiquitous pollutant formed by incomplete combustion of carbon-containing fuels. Released to the environment in coke ovens, diesel exhaust particulates, natural gas powered appliances, waste incineration, and coal and gas refineries. Releases to soil and water occurred at refineries, coal tar processing and creosote and wood treatment plants. (ATSDR 1995)

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N/A	Dioxins & Furans - as group	Industrial & Combustion By-Product	Focus only		Y(1)		<b>D, G, H, L, R, P, X</b>	-	N	E	-	CDDs are not manufactured commercially in the United States except on a small scale for use in chemical and toxicological research. CDDs are unique among the large number of organochlorine compounds of environmental interest in that they were never intentionally produced as desired commercial end products. [ATSDR 1998] CDDs are not manufactured commercially in the United States except on a small scale for use in chemical and toxicological research. CDDs are unique among the large number of organochlorine compounds of environmental interest in that they were never intentionally produced as desired commercial end products. [ATSDR 1998]	CDDs and CDFs are released to the environment during combustion processes (e.g., municipal solid waste, medical waste, and industrial hazardous waste incineration, and fossil fuel and wood combustion); during the production, use, and disposal of certain chemicals (e.g., PCBs, chlorinated benzenes, chlorinated pesticides); during the production of bleached pulp by pulp and paper mills; and during the production and recycling of several metals. [ATSDR 1998]
1746-01-6	2,3,7,8-TCDD (as total TEQ)	Industrial & Combustion By-Product	Focus & P3	--	Y(1)		<b>D, E, H, Y, X</b>	-	N	E	-	None.	Ubiquitous pollutant formed by both natural and anthropogenic processes. Formed through combustion, chlorine bleaching and manufacturing processes (combination of heat and chlorine creates dioxin. Since chlorine is naturally occurring, natural activities such as volcanic activity and forest fires can lead to the formation of dioxins. CDDs occur as contaminants in the manufacture of various pesticides and, as a result, have been released to the environment during use of these pesticides. 2,3,7,8-TCDD is a by-product formed in the manufacture of 2,4,5-trichlorophenol (2,4,5-TCP) [ATSDR 1998]
Multiple	Naphthalenes	Combustion by-product & VOC	Focus only		Y(C)	1224.5 (TRI)	<b>G, P, C, Q, S, RRR, YYY</b>	-	Y	E	-	Produced from coal tar or petroleum. Used as an intermediate in production of phthalic anhydride, which is used for plasticizers, resins, dyes, insect repellants, pharmaceuticals and more. 2004 estimated U.S. production capacity of 215 million pounds; 21 facilities in Oregon store naphthalene on site [ATSDR 2005]	Most naphthalene is released to the environment through the combustion of wood and fossil fuels. Significant contributions of naphthalene to air also include off-gassing from moth repellent and cigarette smoke. Releases to soil and water generally occur as a result of coal-tar production and manufactured gas plants. (ATSDR 2005)
	Consumer Product Constituents (including pharmaceuticals, personal care products, hormones, plasticizers)												
N/A	Phthalates - as a group	Plasticizers	Focus only				<b>E, L, C, O, RRR, VVV, XXX, ZZZ</b>	-	N	E	-	Phthalates are commonly and widely used as a plasticizer. Found in furniture, carpet, home electronics, plastics, toys, building materials (vinyl floor, carpet, plastic wall covering), household products (shower curtains, electrical cable covering, furniture upholstery, synthetic leather, shoes), personal-care products (e.g., perfumes, lotions, nail polish, cosmetics), food packaging, medical products (e.g., intravenous fluids, blood storage bags, tubing), pharmaceuticals (e.g., coatings), paints, children's toys, electronic devices, and industrial plastics. [ATSDR 2002]	Phthalates are volatilized as products containing plasticizers age and break down. Also released to atmosphere in some fragrances. [VVV] Phthalates have been detected in house dust and indoor air from consumer products containing plasticizers. [TTT] Phthalates are released to wastewater from personal care and household cleaning products and detergents. [XXX]
84-66-2	Diethylphthalate	Plasticizers	Focus only	0.993	N(D)		<b>A, E, G, L, UUU, VVV, WWW, XXX, YYY</b>	Low	Y	E	-	Used in a wide variety of plastic consumer products and packaging, as well as pharmaceutical and personal care products. It is also used as a solvent, insecticide and lubricant. U.S. production volume in 1988 was 26 million pounds. (ATSDR 1995)	Releases to the environment may occur as a result of manufacturing processes, leaching from landfills, waste incineration or volatilization from the products that contain it. (ATSDR 1995)
117-81-7	Bis (2-ethylhexyl) phthalate	Plasticizers	Focus only	0.000227	Y(ROC2)		<b>E, G, H, L, TTT, WWW, XXX, YYY, ZZZ</b>	High	Y	E	-	Commonly used as a plasticizer in soft PVC-products. Found in furniture, carpet, home electronics, plastics, toys, building materials (vinyl floor, carpet, plastic wall covering), household products (shower curtains, electrical cable covering, furniture upholstery, synthetic leather, shoes), personal-care products (e.g., perfumes, lotions, nail polish, cosmetics), food packaging, medical products (e.g., intravenous fluids, blood storage bags, tubing), pharmaceuticals (e.g., coatings), paints, children's toys, electronic devices, and industrial plastics. It has also been used in cosmetics, pesticides, electrical components and erasable ink. [ATSDR 2002]	Bis (2-ethylhexyl) phthalate is a widely used chemical that enters the environment both through disposal of industrial and municipal wastes in landfills and by leaching into consumer products stored in plastics. It may be volatilized as products containing plasticizers age and break down. Also released to atmosphere in some fragrances. [VVV] Phthalates have been detected in house dust and indoor air from consumer products containing plasticizers. [TTT] Phthalates are released to wastewater from personal care and household cleaning products and detergents. [XXX]
84-61-7	Di-cyclohexyl phthalate [DCHP]	Plasticizers	Focus & P3	0.006	n/d		<b>G, L, ZZZ</b>	-	N	-	-	-	-
3380-34-5	Triclosan	Disinfectant	Focus & P3	0.082	n/d		<b>G, L, QQQ, RRR, SSS, XXX</b>	-	N	-	-	Antibacterial. Used as a broad-spectrum antibacterial agent on commercial, institutional, and industrial, residential, and public access premises. Used as a material preservative in many products including adhesives, fabrics, inks, vinyl, plastics, polyethylene, polyurethane, polypropylene, floor wax emulsions, textiles, caulking compounds, sealants, rubber, carpets, toys, mattresses, clothing, brooms, mulch, floors, shower curtains, awnings, tents, toilet bowls, urinals, garbage cans, refuse container liners, insulation, air conditioning coils, ice making equipment, concrete mixtures, grouts, and upholstery fabrics. Minor use as a registered pesticide.	Industrial releases when triclosan is incorporated into plastic and textile items during production. Release into household wastewater and surface waters from the antimicrobial uses.
80-05-7	Bisphenol A	Plasticizers	Focus only	0.55	N(Keri et al., 2007)		<b>G, L, O, P, Q, NNN, QQQ, XXX</b>	Medium	N	-	-	Bisphenol-A (BPA) is used as an intermediate in a wide variety of plastics, including plastic water bottles, baby bottles, medical devices, window glazings, CDs/DVDs, automobile lenses and more. [CERHR, 2007] BPA is also used as a lining in canned foods, dental fillings, and cash register receipts. Nearly 99.9% of BPA produced is used as an intermediate product in polycarbonate and epoxy resins, flame retardants and other products. [Staples et. al, 1998]	Bisphenol-A (BPA) can escape at the manufacturing or processing plants and can be released directly into surface waters, through waste waters, or into the air via vaporization. [Kang et al., 2006] It can also be sorbed into soils. Landfills may also be a source for BPA in soils, surface waters and air. [Yamamoto et al., 2001]
134-62-3	Diethyltoluamide, N, N- (DEET)	Pesticide	Focus only	0.091	N(D)		<b>G, L, V, Q</b>	Low	N	-	-	DEET is the active ingredient in many widely-used insect repellants. DEET products are available in a variety of forms, including liquids, lotions, sprays, and impregnated textiles. Formulations designed for direct application may contain up to 100% DEET. [ATSDR]	Releases to the environment may occur as a result of manufacturing processes, leaching from landfills, volatilization from the products that contain it and household wastewater.
104-40-5	Nonylphenol, 4- (& ethoxylates)	Detergent/Surfactant	Focus only	0.01	n/d		<b>D, E, GGG, HHH, III, JJJ, KKK, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, VVV, YYY</b>	-	N	E	-	4-Nonylpheno(NP) is a degradation product of Nonylphenol Ethoxylates(NPE). NPE is used in a variety of consumer product applications, including detergents, shampoos, cosmetics, spermicides, paint, and packaging. It is also found in industrial settings in products such as surfactants, detergents, wetting agents, dispersants, defoamers, de-inkers, and antistatic agents. [GGG, HHH, III, JJJ]	NP is released to the environment primarily in urban, institutional and industrial wastewater. Airport runoff is an identified source of NP. NP has also been detected in biosolids applications. [III, KKK, LLL]
<b>Current Use Pesticides</b>													
2921-88-2	Chlorpyrifos	Pesticide	Focus & P3	0.038	N(NTP)		<b>D, G, L, U, V, W, SS, BBB, YYY</b>		N	-	83128	Current-use pesticide. A broad spectrum organophosphate insecticide/acaricide used to control a variety of insects on a wide range of crops including vegetables, nurseries, grass for seed, tree fruit and Christmas trees. Currently in more than 25 products registered for commercial use in Oregon. [Once was one of the most widely used household pesticides. In 1994, was ranked twelfth in frequency of indoor pesticide applications and fifth in frequency of outdoor pesticide applications.]	Released during its application as a pesticide and may be released to surface water as a result of agricultural runoff and spray drift. Because use in residential products discontinued, wastewater or stormwater discharges of homeowner uses of products containing this chemical are likely minimal (from remaining stocks only). Chlorpyrifos one of the 3 OP insecticides included in the recent NMFS/NOAA Biological Opinion to EPA that will require extensive no-spray buffers (minimum of 100 ft. along salmon-bearing streams in the Pacific Northwest). Labeled buffer requirements currently set at 25 ft.
94-75-7	2,4-D	Pesticide	Focus only	52.974	N(IARC)	nr (TRI)	<b>G, L, U, V, W, CCC, Q</b>	High	Y	-	354035	Ubiquitous herbicide used in commercial agriculture, home uses, landscaping and right-of-ways. A common herbicide ingredient in "Weed and Feed" products.	Released to the environment during its intended use in weed control applications, such as agricultural crops, highway right-of-ways, home and urban environments.
1912-24-9	Atrazine	Pesticide	Focus only	3.1501	N(EPA)	nr (TRI)	<b>D, E, G, L, U, V, W, Q, X</b>	High	N	E	103775	Atrazine is heavily used as a broad-spectrum herbicide. It is available only to government-certified applicators. It is manufactured in high quantities at 24 different U.S. facilities. [ATSDR 2003]	Released to the environment during its intended use in weed control applications, such as agricultural crops, highway right-of-ways, and occasionally ponds and lakes. In these cases, atrazine volatilizes into the air and is carried into soil and water by runoff and infiltration. (ATSDR 2003)
63-25-2	Carbaryl	Pesticide	Focus only	0.25	n/d	nr (TRI)	<b>E, G, L, U, XX, CCC</b>	High	N	E	7813	Carbaryl is commonly used as an insecticide, nematicide, and plant growth regulator. [National Pesticide Information Center]. Common for both commercial agricultural and urban/home uses.	Released to environment during its intended use as a pesticide.
1897-45-6	Chlorothalonil	Pesticide	Focus & P3	--	Y(2B)		<b>G, L, CCC</b>		N	-	95972	Broad spectrum and commonly used fungicide for a wide range of commercial and urban/home uses. Commercial uses include vegetables, berries, ornamentals and golf courses and recreational areas.	Released to environment during its intended use as a pesticide.

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333-41-5	Diazinon	Pesticide	Focus & P3	0.132	N(E)	nr (TRI)	<b>E, G, L, U, V, RRR, YYY</b>		N	E	15223	Current-use pesticide. Only 4 major products registered in Oregon for commercial agriculture. Insecticide used in a wide range of vegetables, fruit and nursery ornamentals. Also formerly used extensively in home and garden applications, including pet collars. Registration for residential uses cancelled in 2004; consumers may use products produced prior to 2004 (ATSDR, 2008b).	Released during its application as a pesticide and may be released to surface water as a result of agricultural runoff. Home use discontinued in 2004, so runoff from homeowner use of pesticides in urban areas would be expected to be minimal.
330-54-1	Diuron	Pesticide	Focus only	0.358	n/d	nr (TRI)	<b>D, E, G, L, V, W, YYY</b>	High	N	E	175079	A persistent, broad spectrum pre- and post emergent herbicide registered for commercial and agricultural uses that include grass seed, wheat, tree fruit, right-of ways, ditch banks, berries, etc.	Released to environment during its intended use as an herbicide - runoff and drift.
1071-83-6	Glyphosate	Pesticide	Focus only	23151.414	N(D)		<b>G, L, V, CCC</b>	High	N	-	870065	Ubiquitous. Herbicide component of numerous commercial, agricultural and homeowner products.	Released to the environment through runoff and drift during its use as a herbicide in agricultural, non-ag commercial and homeowner uses.
58-89-9	Hexachlorocyclohexane (HCH), gamma- (Lindane)	Pesticide	Focus & P3	0.28	Y(ROC2)	543 (EI)	<b>G, L, U, YYY</b>	-	Y	-	-	Registration cancelled in 2006. Last use in Oregon as a seed treatment in 2009. No current product registrations in Oregon. Current use in FDA-regulated lice creams and shampoos is being phased-out; such products may no longer be available in Oregon.	Prior agricultural uses may have left residues which may be released to surface water as a result of agricultural runoff or soil/land disturbance. Waste water from indoor consumer and domestic uses of products containing this chemical could be discharged into rivers and lakes through treated wastewater or to land through application of sewage sludge.
40487-42-1	Pendimethalin	Pesticide	Focus & P3	0.004	Y(C)		<b>G, L, V, AAA</b>		N	-	100960	Current-use herbicide. Use include crops and residential lawns, recreational areas and ornamental plants. Homeowner products tend to be "Weed & Feed" products that also contain a fertilizer.	Current agricultural uses may have left residues which may be released to surface water as a result of agricultural runoff or soil/land disturbance. Runoff from current uses of the product, particularly lawn care products.
87-86-5	Pentachlorophenol	Wood Preservative	Focus only	0.068	Y(B2)	1092 (TRI)	<b>G, H, L, U, TT, UU, VV, WW, YYY</b>	High	Y	-	13986	Pentachlorophenol is principally used as a wood preservative. It was a widely used biocide, but is now restricted. It is still included in the formulation of fungicides and insecticides. As of 1998, there was only one producer in the U.S. (ATSDR 2001). Only 2 registered products in Oregon.	Ubiquitous pollutant as a result of historic heavy, widespread use. Current releases are limited, due to restrictions. Atmospheric releases occur as a result of volatilization from treated wood products and emissions from wood preservative plants. Water contamination occurs due to atmospheric deposition, wastewater discharges from wood preservative plants, and surface runoff. Leaching to soil occurs from contact with treated wood products. (ATSDR 2001)
52645-53-1	Permethrin	Pesticide	Focus & P3	0.00102	Y(B2)	nr (TRI)	<b>G, L, CCC, UUU</b>		N	-	-	Permethrin is a general use pyrethroid insecticide for residential and industrial applications. It is registered for use on/in numerous crops, livestock and livestock housing, modes of transportation, structures, buildings, food handling establishments, public mosquito abatement, pets, clothing, and residential use sites. It also has pharmaceutical applications, in the control of head lice and scabies. [EPA factsheet]	Released to environment during its intended use as a pesticide.
114-26-1	Propoxur (Baygon)	Pesticide	Focus only	0.46	n/d	nr (TRI)	<b>G, L, V, Q</b>	Low	N	-	-	General use insecticide in and around homes and commercial sites for the control of insects such as cockroaches, ants, etc. Also used in the control of pests on domestic animals in the form of flea and tick collars.	Released into the environment through disposal of bait stations and flea collars and runoff from outside residues around homes and commercial buildings.
1582-09-8	Trifluralin	Pesticide	Focus & P3	0.003	Y(C)	nr (TRI)	<b>G, U, V, YYY</b>		N	-	43527	Current-use herbicide. Used to control annual grasses and some broadleaf annual weeds on a variety of sites, including shrubs/ornamentals, golf courses and lawns. A number of home and commercial use products. Homeowner products may include fertilizers for "Weed and Feed" use.	May be released in fugitive emissions* during its production and in wastewater effluent. Also released during its application as a pesticide and may be released to surface water as a result of runoff. [*Air pollutants released to the air other than those from stacks or vents; typically small releases from leaks in plant equipment such as valves, pump seals, flanges, sampling connections, etc.]
<b>Flame Retardants</b>													
N/A	Polybrominated Diphenyl Ethers (PBDEs) - as a group	Flame Retardant	Focus only		Y(C)		<b>L, Z, AA, LL, P, Q</b>	-	N	-	-	PBDEs are used as additive flame retardants in thermoplastics. The commercial pentaBDE product is used predominantly (95-98%) for flame retardant purposes as an additive in consumer products manufactured by the furniture industry. Historical uses of commercial pentaBDE included coatings for specialty textiles, printed circuit board components, hydraulic and oilfield completion fluids, and rubber products. However, all of these uses have been discontinued in recent years. In the past, automotive and airplane seating cushions contained FPUF with commercial pentaBDE. However, this use was discontinued in the early 1990s. (ATSDR 2004)	PBDEs may be released into the environment from their manufacture and use in a wide range of consumer products. PBDEs are released to land (i.e., landfills) as waste from their manufacture (both raw material and polymer) and as municipal wastes with the disposal of consumer products. In the future, the disposal of plastic consumables containing PBDEs to landfills is likely to increase in the United States and elsewhere in the world. Since pentaBDE technical mixtures are additive flame retardants, they may be subject to volatilization or leaching from the polymer matrix during the lifetime of the use of the foam article. Industrial and urban effluents are significant sources of PBDEs to surface waters and sediments. PBDEs are released to farmland with their disposal as biosolids. (ATSDR 2004)
5436-43-1	PBDE-047 [2,2',4,4'-Tetrabromodiphenyl ether]	Flame Retardant	Focus & P3	0.003			<b>L, UUU, VVV</b>	-	N	-	-	Used as additive flame retardants in thermoplastics (ATSDR, 2004).	Additive flame retardants are physically combined with the polymer material being treated rather than chemically combined (as in reactive flame retardants). This means that there is a possibility that they may diffuse out of the treated material to some extent. Leaching from in-use or discarded products. Releases from combustion (e.g., residential fires) or incineration of in-use or discarded products.
60348-60-9	PBDE-099 [2,2',4,4',5-Pentabromodiphenyl ether]	Flame Retardant	Focus & P3	0.000694			<b>L, UUU, VVV</b>	-	N	-	-	Used as additive flame retardants in thermoplastics. The commercial pentaBDE product is used predominantly (95-98%) for flame retardant purposes as an additive in consumer products manufactured by the furniture industry (ATSDR, 2004).	Additive flame retardants are physically combined with the polymer material being treated rather than chemically combined (as in reactive flame retardants). This means that there is a possibility that they may diffuse out of the treated material to some extent. Leaching from in-use or discarded products. Releases from combustion (e.g., residential fires) or incineration of in-use or discarded products.
189084-64-8	PBDE-100 [2,2',4,4',6-Pentabromodiphenyl ether]	Flame Retardant	Focus & P3	---			<b>L, UUU</b>	-	N	-	-	Used as additive flame retardants in thermoplastics. The commercial pentaBDE product is used predominantly (95-98%) for flame retardant purposes as an additive in consumer products manufactured by the furniture industry (ATSDR, 2004).	Additive flame retardants are physically combined with the polymer material being treated rather than chemically combined (as in reactive flame retardants). This means that there is a possibility that they may diffuse out of the treated material to some extent. Leaching from in-use or discarded products. Releases from combustion (e.g., residential fires) or incineration of in-use or discarded products.
68631-49-2	PBDE-153 [2,2',4,4',5,5'-Hexabromodiphenyl ether]	Flame Retardant	Focus & P3	---			<b>L, UUU</b>	-	N	-	-	Used as additive flame retardants in thermoplastics (ATSDR, 2004).	Additive flame retardants are physically combined with the polymer material being treated rather than chemically combined (as in reactive flame retardants). This means that there is a possibility that they may diffuse out of the treated material to some extent. Leaching from in-use or discarded products. Releases from combustion (e.g., residential fires) or incineration of in-use or discarded products.
1163-19-5	PBDE-209 [decabromodiphenyl ether]	Flame Retardant	Focus & P3	0.00000019			<b>VVV</b>	-	N	-	-	Used as additive flame retardants in thermoplastics. Used at loadings of 10-15% weight in polymers and is always used in conjunction with antimony trioxide. Its major use is in high impact polystyrene, which is used in the television industry for cabinet backs.	Additive flame retardants are physically combined with the polymer material being treated rather than chemically combined (as in reactive flame retardants). This means that there is a possibility that they may diffuse out of the treated material to some extent. Leaching from in-use or discarded products. Releases from combustion (e.g., residential fires) or incineration of in-use or discarded products.
36483-60-0	PBDE-138 [2,2',3,4,4',5'-Hexabromodiphenyl ether]	Flame Retardant	Focus only	0.000138			<b>UUU</b>	-	N	-	-		---
36483-60-0	PBDE-154 [2,2',4,4',5,6'-Hexabromodiphenyl ether]	Flame Retardant	Focus only	0.000138			<b>P, Q, UUU</b>	-	N	-	-		---
68928-80-3	PBDE-185 [2,2',3,4,4',5',6'-Heptabromodiphenyl ether]	Flame Retardant	Focus only	---			<b>-</b>	-	N	-	-		---
40088-47-9	PBDE-66 [2,3',4,4'-Tetrabromodiphenyl ether]	Flame Retardant	Focus only	---			<b>P, Q</b>	-	N	-	-		---
32534-81-9	PBDE-85 [2,2,3,4,4-Pentabromodiphenyl ether]	Flame Retardant	Focus only	---			<b>L, P, Q</b>	-	N	-	-		---
<b>Industrial Chemicals or Intermediates</b>													
N/A	Polychlorinated Biphenyls (PCBs)	Electrical equipment coolants/insulators	Focus only		Y(B2)	124555 (TRI)	<b>E, H, L, R, Y, AA, BB, CC, DD, EE, FF, GG, HH, II, YY, C, O, P, Q, S, X, DDD, UUU</b>	-	N	E	-	Prior to 1974, PCBs were used both for nominally closed applications (e.g., capacitor and transformers, and heat transfer and hydraulic fluids) and in open-end applications (e.g., flame retardants, inks, adhesives, microencapsulation of dyes for carbonless duplicating paper, paints, pesticide extenders, plasticizers, polyolefin catalyst carriers, slide-mounting mediums for microscopes, surface coatings, wire insulators, and metal coatings). (ATSDR 2005)	PCBs have been released to the environment solely by human activity. Aroclors are no longer produced in the United States, except under exemption (see Section 5.3), and are no longer used in the manufacture of new products. Because PCBs are no longer manufactured or imported in large quantities, significant releases of newly manufactured or imported materials to the environment do not occur. Rather, PCBs predominantly are redistributed from one environmental compartment to another. Some PCBs may be released to the atmosphere from uncontrolled landfills and hazardous waste sites; incineration of PCB-containing wastes; leakage from older electrical equipment in use; and improper disposal or spills. PCBs may be released to water from accidental spillage of PCB-containing hydraulic fluids; improper disposal; combined sewer overflows (CSOs) or storm water runoff; and from runoff and leachate from PCB-contaminated sewage sludge applied to farmland. PCBs may be released to soil from accidental leaks and spills; releases from contaminated soils in landfills and hazardous waste sites; deposition of vehicular emissions near roadway soil; and land application of sewage sludges containing PCBs (ATSDR 2005)
37680-65-2	PCB 18 [2,2',5-trichlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.015			<b>G</b>	-	N	-	-		---
7012-37-5	PCB-028 [2,4,4'-trichlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.015			<b>L</b>	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
35693-99-3	PCB-052 [2,2',5,5'-tetrachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.005			<b>L, VVV</b>	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
32598-13-3	PCB-077 [3,3',4,4'-tetrachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	---			<b>L, Y</b>	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).

DRAFT Data Table for DEQ Toxics Focus List (7/24/2010)

CASRN	Chemical Name	Chemical Class/Uses	DEQ Lists	Toxicity-ECOSAR (mg/L)	Human Carcinogen?	Released (kg/yr)	Monitoring Data ? (Oregon data sources indicated in bold)*	Storage in Oregon? (State Fire Marshall data)	Haz Waste Generation? (DEQ reports)	Oregon Site Cleanup (ECSI Database)	Oregon Use Data (PURS - kg/yr)	Uses of Chemical	Sources & Pathways to the Environment
70362-50-4	PCB-081 [3,4,4',5'-tetrachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.005			Y	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
37680-73-2	PCB-101 [2,2',4,4',5,5'-pentachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.00152			L	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
32598-14-4	PCB-105 [2,3,3',4,4'-pentachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.00152			Y	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
74472-37-0	PCB-114 [2,3,4,4',5-pentachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.00152			-	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
31508-00-6	PCB-118 [2,3',4,4',5-pentachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.00152			Y	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
65510-44-3	PCB-123 [2',3',4,4',5-pentachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.00152			-	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
57465-28-8	PCB-126 [3,3',4,4',5-pentachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.00152			Y	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
38380-07-3	PCB-128 [2,2',3,3',4,4'-hexachlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.000476			Q	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
35065-28-2	PCB-138 [2,2',3,4,4',5'-hexachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.000476			Y	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
35065-27-1	PCB-153 [2,2',4,4',5,5'-hexachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.000476			L, Y	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
38380-08-4	PCB-156 [2,3,3',4,4',5-hexachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.000476			-	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
69782-90-7	PCB-157 [2,3,3',4,4',5'-hexachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.000476			-	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
52663-72-6	PCB-167 [2,3',4,4',5,5'-hexachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.000476			-	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
32774-16-6	PCB-169 [3,3',4,4',5,5'-hexachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.000476			Y	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
35065-30-6	PCB-170 [2,2',3,3',4,4',5-heptachlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.000147			G, Q	-	N	-	-		
35065-29-3	PCB-180 [2,2',3,4,4',5,5'-heptachlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.000147			G, Y, Q	-	N	-	-		
52663-68-0	PCB-187 [2,2',3,4',5,5',6-heptachlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.000147			G, Y, Q	-	N	-	-		
39635-31-9	PCB-189 [2,3,3',4,4',5,5'-heptachlorobiphenyl]	Electrical equipment coolants/insulators	Focus & P3	0.000147			G	-	N	-	-	Between 1979 and 1998, the production and use of PCBs in the U.S. was generally banned (ATSDR, 2000b). The use of PCB-containing materials and equipment still in service (primarily electrical transformers and capacitors) was allowed to continue but with restrictions (ATSDR, 2000b).	Diffuse losses from current equipment or products containing PCBs; Diffuse losses from old equipment or products containing PCBs; historical losses and discharges from equipment or products containing PCBs; ongoing and periodic illegal sale and use of PCB stockpiles; release of PCBs as unintentional by-products of high temperature industrial processes including incineration. PCBs are known global atmospheric pollutants (Harner et al., 1998).
52663-78-2	PCB-195 [2,2',3,3',4,4',5,6-octachlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.0000453			G, Q	-	N	-	-		
40186-72-9	PCB-206 [2,2',3,3',4,4',5,5',6-nonachlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.0000139			G, Q	-	N	-	-		
2051-24-3	PCB-209 [2,2',3,3',4,4',5,5',6,6'-decalchlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.000421			G, Q	-	N	-	-		
41464-39-5	PCB-44 [2,2',3,5'-tetrachlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.005			G, Q	-	N	-	-		
32598-10-0	PCB-66 [2,3',4,4'-tetrachlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.005			G, Q	-	N	-	-		
34883-43-7	PCB-8 [2,4'-dichlorobiphenyl]	Electrical equipment coolants/insulators	Focus only	0.046			G	-	N	-	-		
7664-41-7	Ammonia	Fertilizer/Intermediate for Dyes	Focus only	43.924		653429 (TRI)	D, E, G, L, CCC, X	High	N	E	6764	Ammonia is both manufactured and naturally occurring. It is used primarily in agricultural fertilizers. A smaller proportion is used in a variety of applications, including water purification, refrigerants, household cleaners, corrosion inhibitors, and in the manufacture of pharmaceuticals and explosives. There are 2338 facilities that manufacture or process ammonia in the U.S. Maximum production reported in 1999 at 16.6 million metric tons. (ATSDR 2004)	Ammonia occurs at low background levels in all types of environmental media. Ammonia is released to the atmosphere in large quantities by the decay of livestock manure in CAFOs, and from volatilization during production, transport and storage of ammonia, fertilizers and biosolids. It has also been found in coal burning emissions and vehicle exhaust. Natural sources to the atmosphere include volcanoes, forest fires and decomposition. The main sources of release to water are found WWTTP effluent, and runoff from fertilized fields and CAFOs. Releases to soil are primarily from fertilizer applications, but also occur from high levels of feces or decaying organic matter on the soil. (ATSDR 2004)
<b>Legacy Pesticides</b>													
60-57-1	Dieldrin	Legacy Pesticide	Focus only	0.007	Y(B2)		D, E, G, H, L, W, Y, C, X	-	Y	E	-	Formerly used as an insecticide. No longer produced, imported to, or used in the U.S.; quantity stored is unknown. (ATSDR 2002)	Ubiquitous, persistent pollutant found in all types of environmental media as a result of historic widespread use. Current releases are externally limited but include continuing contamination of indoor air from past termite control applications. Release from previously treated soil and contaminated water also contributes to atmospheric concentrations. Contributions to water contamination comes from runoff over contaminated areas and groundwater movement. Current releases to soil may be a result of improper disposal of stored aldrin.(ATSDR 2002)
50-29-3	DDT (and metabolites - as a group)	Legacy Pesticide	Focus only	0.002	Y(B2)		D, E, G, H, Y, Q, S	-	N	E	-		
72-54-8	4,4'-DDD	Legacy Pesticide	Focus & P3	0.013	Y(B2)		D, E, H, L, C, S, X	-	N	E	-	Legacy pesticide. Limited commercial uses as a pesticide (ATSDR, 2002a).	Degradation product of DDT. Prior agricultural uses may have left residues of DDT which may be released to surface water as a result of agricultural runoff or soil/land disturbance, then degrade into DDD.

DRAFT Data Table for DEQ Toxics Focus List (7/24/2010)

CASRN	Chemical Name	Chemical Class/Uses	DEQ Lists	Toxicity-ECOSAR (mg/L)	Human Carcinogen?	Released (kg/yr)	Monitoring Data ? (Oregon data sources indicated in bold)*	Storage in Oregon? (State Fire Marshall data)	Haz Waste Generation? (DEQ reports)	Oregon Site Cleanup (ECSI Database)	Oregon Use Data (PURS - kg/yr)	Uses of Chemical	Sources & Pathways to the Environment
3424-82-6	2,4'-DDE	Legacy Pesticide	Focus only	0.00169	Y(B2)		<b>G, L, C, X</b>	-	N	-	-	No commercial use known. (ATSDR 2002, updated 2008)	Ubiquitous, persistent pollutant found in all types of environmental media as a result of historic widespread use. Relatively non-mobile in soil, but presence in atmosphere allows continued deposition onto land and surface waters. (ATSDR 2002, updated 2008)
789-02-6	2,4'-DDT	Legacy Pesticide	Focus only	0.002	Y(B2)		<b>G, L, C, X</b>	-	N	-	-	DDT is a broad spectrum insecticide used widely in agriculture. It has been banned in the U.S., but is still used for malaria control in some countries. (ATSDR 2002, updated 2008)	Ubiquitous, persistent pollutant found in all types of environmental media as a result of historic widespread use. Relatively non-mobile in soil, but presence in atmosphere allows continued deposition onto land and surface waters. (ATSDR 2002, updated 2008)
72-55-9	4,4'-DDE	Legacy Pesticide	Focus only	0.00169	Y(B2)		<b>D, E, G, H, C, S, X, UUU</b>	-	N	E	-	No commercial use known (ATSDR 2002, updated 2008)	Ubiquitous, persistent pollutant found in all types of environmental media as a result of historic widespread use. Relatively non-mobile in soil, but presence in atmosphere allows continued deposition onto land and surface waters. (ATSDR 2002, updated 2008)
50-29-3	4,4'-DDT	Legacy Pesticide	Focus only	0.002	Y(B2)		<b>D, G, W, C, X</b>	-	N	-	-	DDT is a broad spectrum insecticide used widely in agriculture. It has been banned in the U.S., but is still used for malaria control in some countries. (ATSDR 2002, updated 2008)	Ubiquitous, persistent pollutant found in all types of environmental media as a result of historic widespread use. Relatively non-mobile in soil, but presence in atmosphere allows continued deposition onto land and surface waters. (ATSDR 2002, updated 2008)
53-19-0	DDD, 2,4'	Legacy Pesticide	Focus only	0.013	Y(B2)		<b>G, L, C</b>	-	N	-	-	Formerly used as an insecticide, now used in the treatment of cancer of the adrenal gland. (ATSDR 2002, updated 2008)	Ubiquitous, persistent pollutant found in all types of environmental media as a result of historic widespread use. Relatively non-mobile in soil, but presence in atmosphere allows continued deposition onto land and surface waters. (ATSDR 2002, updated 2008)
309-00-2	Aldrin	Legacy Pesticide	Focus only	0.000326	Y(B2)	884.5 (TRI)	<b>E, G, L, C, Q</b>	-	Y	E	-	Formerly used as an insecticide. No longer produced, imported to, or used in the U.S.; quantity stored is unknown. (ATSDR 2002)	Ubiquitous, persistent pollutant found in all types of environmental media as a result of historic widespread use. Current releases are externally limited but include continuing contamination of indoor air from past termite control applications. Release from previously treated soil and contaminated water also contributes to atmospheric concentrations. Contributions to water contamination comes from runoff over contaminated areas and groundwater movement. Current releases to soil may be a result of improper disposal of stored dieldrin. (ATSDR 2002)
57-74-9	Chlordane (and metabolites - as a group)	Legacy Pesticide	Focus only	0.00117	Y(B2)	990 (TRI)	<b>D, E, G, L, Y, C, Q, S, X, UUU, VVV</b>	-	Y	E	-	Chlordane was formerly used as an agricultural insecticide and for subterranean termite control. (ATSDR 1994)	Ubiquitous, persistent pollutant found in all types of environmental media as a result of historic widespread use. Current releases are externally limited but include continuing contamination of indoor air from past termite control applications. Release from previously treated soil and contaminated water also contributes to atmospheric concentrations. Contributions to water contamination comes from runoff over contaminated areas and groundwater movement. Current releases to soil may be a result of improper disposal of stored chlordane (ATSDR 1994)
57-74-9	alpha-Chlordane	Legacy Pesticide	Focus only	0.00117	Y(B2)		<b>E, G, L</b>	-	Y	E	-		
5103-71-9	Chlordane, cis-	Legacy Pesticide	Focus & P3	0.00117	Y(B2)		<b>E, L, C</b>	-	N	E	-	Legacy pesticide. A component of the chlordane mixture (ATSDR, 1994). Registration for use of chlordane in the U.S. cancelled in 1988. As of 1994, chlordane was still produced in the U.S. for export.	Prior agricultural uses may have left residues which may be released to surface water as a result of agricultural runoff or soil/land disturbance. Current exposures would be through air in homes treated for termites pre-1988.
5103-74-2	Chlordane, trans-	Legacy Pesticide	Focus & P3	0.00117	Y(B2)		<b>E, L, C</b>	-	N	E	-	Legacy pesticide. A component of the chlordane mixture (ATSDR, 1994). Registration for use of chlordane in the U.S. cancelled in 1988. As of 1994, chlordane was still produced in the U.S. for export.	Prior agricultural uses may have left residues which may be released to surface water as a result of agricultural runoff or soil/land disturbance. Current exposures would be through air in homes treated for termites pre-1988.
5103-73-1	Cis-Nonachlor	Legacy Pesticide	Focus only	0.000824			<b>D, G, C</b>	-	N	-	-		
27304-13-8	Oxychlordane	Legacy Pesticide	Focus only	0.008			<b>G, C, Q</b>	-	N	-	-		
39765-80-5	Trans-Nonachlor	Legacy Pesticide	Focus only	0.000824			<b>G, L, C, Q, X</b>	-	N	-	-		
76-44-8	Heptachlor (& Heptachlor epoxide)	Legacy Pesticide	Focus & P3	0.003	Y(B2)	885 (TRI)	<b>E, H, L, W, Y, C, ZZ</b>	-	Y	E	-	Legacy pesticide. Nearly all registered uses canceled in 1974; sales voluntarily canceled in 1987; sale, distribution, and shipment of existing stocks prohibited in 1988 (ATSDR, 2007). Used extensively from 1953 to 1974 as a soil and seed treatment to protect corn, small grains, and sorghum. Also used non-agriculturally during this time period to control termites and household insects (ATSDR, 2007) Remaining use is treatment of fire ants in power transformers.	Runoff from structural pest control by professional applicators and/or homeowner use of insecticides to control household pests. Prior agricultural uses may have left residues which may be released to surface water as a result of agricultural runoff or soil/land disturbance
118-74-1	Hexachlorobenzene	Legacy Organochlorine Fungicide	Focus & P3	---	Y(B2)	886 (TRI)	<b>E, L, Y, C, YY</b>	-	Y	E	-	Legacy pesticide. No current commercial uses as an end-product in the U.S. Registered use as a fungicide on the seeds of onions, sorghum, wheat, and other grains was voluntarily canceled in 1984 (ATSDR, 2002c). Also used in the production of pyrotechnic and ordinance materials for the military, the production of synthetic rubber, as a porosity controller in the manufacture of electrodes, a chemical intermediate in dye manufacturing, and a wood preservative (ATSDR, 2002c).	Emissions as by-product of manufacture of certain chlorinated solvents, pesticides, and herbicides. Also released due to ongoing use in developing countries and improper storage or disposal in developed countries. May be produced as a by-product in waste streams of chlor-alkali and wood preserving plants, in fly ash, and flue gas effluents from municipal incineration. Currently produced for on-site use and processing, as a by-product, or as an impurity at 9 U.S. facilities, none in Oregon.
319-85-7	Hexachlorocyclohexane, beta- (beta-BHC)	Legacy Organochlorine Insecticide	Focus & P3	0.28	Y(C)		<b>G, L</b>	-	N	-	-	Legacy pesticide. A component of Lindane (ATSDR, 2005).	Prior agricultural uses may have left residues which may be released to surface water as a result of agricultural runoff or soil/land disturbance. Waste water from indoor consumer and domestic uses of products containing this chemical is discharged into rivers and lakes through treated wastewater or to land through application of sewage sludge.
72-43-5	Methoxychlor	Pesticide	Focus only	0.021		881 (TRI)	<b>E, G, L, W</b>	Low	Y	E	-	Methoxychlor is an insecticide that has been used to replace DDT. It attacks a wide range of pests and is used on field and stored crops, livestock and pets. (ATSDR 2002, updated 2009)	Methoxychlor is released to the environment in its intended use as a pesticide. It is released into the atmosphere through spraying and volatilization, and has been detected in soils near sites of use. (ATSDR 2002, updated 2009)
95-95-4	Trichlorophenol, 2,4,5- (2,4,5-T)	Legacy Organochlorine Herbicide	Focus & P3	0.297			<b>E, W</b>	-	N	E	-	Used primarily in various pesticide formulations and as a wood preservative. Also used as a fungicide, glue preservative, insecticide, bactericide, and as an anti-mildew agent for textiles. Also used as an intermediate in the production of higher chlorinated phenols (e.g., PCP) (ATSDR, 1999). Most uses in the U.S. have been cancelled; but as of 2001 it continued to be used in the synthesis of some fungicides.	Principal point sources include industrial waste discharge; leaching from landfills; volatilization to the atmosphere. Primary nonpoint source is application of pesticides that are made from chlorophenols and the chlorination of waste water containing phenol.
<b>Metals</b>													
7439-97-6	Mercury (and methylmercury)	Metals	Focus only	0.00077	N(D)	229 (TRI) 1317 (EI)	<b>D, E, H, L, R, Y, M, P, X</b>	Medium	Y	E	-	Mercury is used in mining operations and industrial manufacturing; and is emitted from wrecking yards, coal fired power plants, smelting, production of cement, medical and municipal waste incinerators, and industrial/commercial boilers (ATSDR 1999). Mercury is present in dental amalgam. There is no known commercial or industrial production or use of methylmercury.	Mercury occurs naturally in rocks and soil, and is distributed throughout the environment by both natural and anthropogenic processes. The natural global geochemical cycling of mercury is characterized by degassing of the element from soils and surface waters, followed by atmospheric transport, deposition of mercury back to land and surface water, and sorption of the compound to soil or sediment particulates. Mercury deposited on land and open water is in part volatilized back into the atmosphere. Pathways of mercury into the environment include air deposition, soil erosion, runoff and industrial and municipal discharge. Methylmercury is formed by bacterial methylation of inorganic mercury in aquatic environments. Methylmercury has been detected in sewage sludge (USEPA, 2009) and WWTP effluent in California (CalEPA, 2010). Methylmercury is also naturally found in surface water and sediment, and is atmospherically deposited. Detected in surface water and/or sediment (USGS, 2007, DEQ LASAR). Detected in fish tissue from the Willamette River (Henny et al., 2003), and in osprey eggs from the Columbia River (Henny et al., 2008abab).
7440-38-2	Arsenic	Metals	Focus & P3		Y(A)	857 (TRI) 829 (EI)	<b>E, H, L, C, O</b>	-	Y	E	-	Majority used mainly in the production of chromated copper arsenate (CCA) wood preservatives. Arsenic compounds were also used in fertilizers, fireworks, herbicides, and insecticides (ATSDR, 2007a).	Occurs naturally in rocks and soils. Industrial discharges (primarily wood treatment facilities), leaching from treated wood products, application of As-containing agricultural products, releases from chicken CAFOs, where it is a feed additive. Detected in sewage sludge (USEPA, 2009b). Detected in surface water and/or sediment (USGS, 2007). Detected in municipal effluent, municipal influent, septic effluent, landfill leachate, groundwater, surface water, and stormwater in Oregon (DEQ LASAR).
7440-43-9	Cadmium	Metals	Focus & P3		Y(B1)	6964.5 (TRI) 368.5 (EI)	<b>D, E, L, QQ, RR, C, X, DDD</b>	-	Y	E	-	Naturally occurring and found in industrial discharge. There are 6 facilities in Oregon that produce, process, or use cadmium and 4 that produce, process, or use cadmium compounds (ATSDR, 2008). Detected in biosolids nationally (USEPA, 2009). Detected in surface water and/or sediment (USGS, 2007). Detected in surface water, stormwater, groundwater, municipal influent & effluent, industrial effluent and landfill leachate in Oregon (DEQ LASAR).	Naturally occurring and found in industrial discharge. There are 6 facilities in Oregon that produce, process, or use cadmium and 4 that produce, process, or use cadmium compounds (ATSDR, 2008). Detected in biosolids nationally (USEPA, 2009). Detected in surface water and/or sediment (USGS, 2007). Detected in surface water, stormwater, groundwater, municipal influent & effluent, industrial effluent and landfill leachate in Oregon (DEQ LASAR).
7440-47-3	Chromium	Metals	Focus only	0.011	Y(A) - Cr6 by inhalation only N(D) - other	31363 (TRI)	<b>E, H, L, PP, C</b>	-	Y	E	-	Chromium is used for metal finishing, leather tanning, wood preservation, refractory and pigments. It is commercially produced at 3,567 facilities in the U.S., and is mined in Coos County, OR. (ATSDR 2008 Draft)	Releases to the atmosphere are from metal and steel plating industrial emissions, and via combustion of coal, oil and gas. Contamination of water occurs from industrial effluents, atmospheric deposition, land erosion, and WWTP effluents. Releases to soil comes from landfilling of consumer products that contain chromium, agricultural and food wastes, and underground injection of industrial waste products. (ATSDR 2008 Draft) Detected in surface water and groundwater in Oregon (DEQ LASAR).
7440-50-8	Copper	Metals	Focus only	0.00145	N(D)	20151 (TRI)	<b>D, E, G, H, L, C, X</b>	High	N	E	-	Copper is used in metals and metal alloys for construction, electrical supplies, transportation and automotive, industrial machinery and consumer products. Copper sulfate compounds are also used as a fungicide to protect crops, leather, fabric, wood and more, from blight, mold and rust. (ATSDR 2004)	Copper is released into the environment from natural and anthropogenic sources. Natural sources include wind-blown dust, volcanoes, forest fires, decaying vegetation, and sea spray. Atmospheric inputs include metal and wood production, waste incineration, combustion of oil, coal and gas, and fertilizer production. Copper is released to water via stormwater and surface runoff, natural weathering, erosion, atmospheric deposition, WWTP effluent, landfill leachate, agricultural runoff, mine runoff, and in aquatic vegetation management in lakes and ponds. Releases to soil originate from mine tailings, municipal waste and landfills. (ATSDR 2004) Detected in surface water, groundwater, and landfill leachate in Oregon (DEQ LASAR).
7439-92-1	Lead	Metals	Focus & P3		Y(B2)	302381 (TRI)	<b>E, G, H, L, C</b>	-	Y	E	-	Production of lead-acid batteries is the major current use. Other uses include lead alloys used in bearings, brass and bronze and some solders; sheets and pipe for nuclear and x-ray shielding, cable covering, noise control materials; chemical resistant linings; ammunition; and pigments and lead compounds used in glassmaking, ceramic glazes, plastic stabilizers, caulk, and paints (ATSDR, 2007b).	Occurs naturally in rocks and soils. Lead-based paint on old buildings and lead-based paint chips. Industrial discharges, incineration of lead-containing products, improper disposal or recycling of lead-acid batteries. Detected during national sewage sludge survey (USEPA, 2009b). Detected in surface water and/or sediment (USGS, 2007). Detected in municipal influent & effluent, surface water, stormwater, groundwater, industrial effluent and landfill leachate in Oregon (DEQ LASAR).

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CASRN	Chemical Name	Chemical Class/Uses	DEQ Lists	Toxicity-ECOSAR (mg/L)	Human Carcinogen?	Released (kg/yr)	Monitoring Data ? (Oregon data sources indicated in bold)*	Storage in Oregon? (State Fire Marshall data)	Haz Waste Generation? (DEQ reports)	Oregon Site Cleanup (ECSI Database)	Oregon Use Data (PURS - kg/yr)	Uses of Chemical	Sources & Pathways to the Environment
7440-02-0	Nickel	Metals	Focus only	0.052	Y(A) - refinery by-products only	88397 (TRI) 3781 (EI)	<b>E, G, L, C</b>	High	N	E	-	Nickel is primarily used in alloys because it imparts to a product such desirable properties as corrosion resistance, heat resistance, hardness, and strength. Nickel alloys are often divided into categories depending on the primary metal with which they are alloyed and their nickel content. Copper-nickel alloys (e.g., Monel alloys) are used for industrial plumbing, marine equipment, petrochemical equipment, heat exchangers, pumps, and electrodes for welding. Coinage metal contains 75% copper and 25% nickel. Nickel-chromium alloys (e.g., Nichrome) are used for heating elements. Most permanent magnets are made of alloys of iron and nickel. Nickel salts are used in electroplating, ceramics, pigments, and as catalysts. Sinter nickel oxide is used as charge material in the manufacture of alloy steel and stainless steel. Nickel is also used in nickelcadmium(NiCd) and nickel-metal hydride (NiMH) batteries. (ATSDR 2005)	Nickel and its compounds are naturally present in the Earth's crust, and releases to the atmosphere occur from natural discharges such as windblown dust and volcanic eruptions, as well as from anthropogenic activities. The burning of residual and fuel oil is responsible for 62% of anthropogenic emissions, followed by nickel metal refining, municipal incineration, steel production, other nickel alloy production, and coal combustion. (ATSDR 2005) Detected in surface water, sediment, and industrial effluent in Oregon (DEQ LASAR).
7439-96-5	Manganese	Metals	Focus only	0.05	(ND)	47787 (TRI) 22257 (EI)	<b>D, E, G, L, C, X</b>	High	N	E	-	Manganese is used in production of metals, ceramics and dry cell batteries, in fertilizers, animal feed, fireworks, matches and as a colorant for bricks. U.S. imported 610 metric tons in 2007.(ATSDR 2008 Draft)	Manganese is ubiquitous in the environment, and human exposure arises from both natural and anthropogenic activities. It occurs naturally in more than 100 minerals with background levels in soil ranging from 40 to 900 mg/kg, with an estimated mean background concentration of 330 mg/kg (Barceloux 1999). Manganese is released to the environment from industrial emissions, fossil fuel combustion, and erosion of manganese-containing soils. Volcanic eruptions can also contribute to levels of manganese in air. Almost 80% of industrial emissions of manganese are attributable to iron and steel production facilities (EPA 2003a). Power plant and coke oven emissions contribute about 20% (EPA 2003a). Manganese may also be released to the environment through the use of MMT as a gasoline additive. The general population is exposed to manganese primarily through food intake. The World Health Organization (WHO) estimates that adults consume between 0.7 and 10.9 mg of manganese per day in the diet, with higher intakes for vegetarians who may consume a larger proportion of manganese-rich nuts, grains, and legumes in their diet as compared to non-vegetarians in the general population (ATSDR 2008 Draft) Detected in surface water, groundwater, and sediment in Oregon (DEQ LASAR).
7440-22-4	Silver	Metals	Focus only	0.0032	N(D)	nr (TRI)	<b>E, G, L, C</b>	Medium	Y	E	-	Silver metal and silver compounds have been and still are used in a wide variety of ways. In the past, silver was used for surgical prostheses and/or splints, fungicides (both of which are now obsolete), and coinage (discontinued from general circulation within the United States in 1970). Although silver still serves some of the above functions, the current uses are even more varied. Photographic materials accounted for 45% of the U.S. consumption in 1986. Electrical and electronic products, such as electrical contacts, silver paints, and batteries, consumed approximately 25%. Silver has been an important component in the manufacture of bearings in the past, although today its use in this area is limited by cost and availability. Silver is also an important component in brazing alloys and solders, which represent approximately 5% of the 1986 silver consumption. More aesthetic uses of silver include electroplated ware, sterling ware, and jewelry; in 1986, they accounted for 11% of recorded uses. Other uses account for the remaining 14%; these include use in mirrors, dental amalgam, and medical supplies for treatment of burns, use as a catalyst in the manufacture of formaldehyde and ethylene oxide, as an active agent for purification and disinfection of drinking water and water in swimming pools, in certain chemical analyses involving titration, and in cloud seeding (Grayson 1983; HSDB 1988; NRC 1977; Smith and Carson 1977). Silver ions are also used medically as an antibacterial agent (ATSDR 1990).	Silver is a rare, but naturally occurring, element. Silver is released to air and water through natural processes such as the weathering of rocks and the erosion of soils. Important sources of atmospheric silver from human activities include the processing of ores, steel refining, cement manufacture, fossil fuel combustion, municipal waste incineration, and cloud seeding. Ore smelting and fossil fuel combustion emit fine particles of silver that may be transported long distances and deposited with precipitation. The major source of release to surface waters is effluent from photographic processing. Releases from the photographic industry and from disposal of sewage sludge and refuse are the major sources of soil contamination with silver. Sorption is the dominant process controlling partitioning in water and movement in soil. Silver may leach from soil into groundwater; acidic conditions and good drainage increase the leaching rate. (ATSDR 1990) Detected in surface water and sediment in Oregon (DEQ LASAR).
<b>Volatile Organic Compounds</b>													
127-18-4	Tetrachloroethylene	VOC	Focus only	1.152	Y(2A)	5149 (TRI)	<b>E, G, L, NN, OO, Q, YYY</b>	High	Y	E	-	Tetrachloroethylene is commercially important as a chlorinated hydrocarbon solvent and as a chemical intermediate. An estimate of the current end-use pattern for tetrachloroethylene is as follows: 55% for chemical intermediates, 25% for metal cleaning and vapor degreasing, 15% for dry cleaning and textile processing, and 5% for other unspecified uses (Chemical Profile 1995). In textile processing, tetrachloroethylene is used as a scouring solvent that removes oils from fabrics after knitting and weaving operations, and as a carrier solvent for sizing and desizing, and for fabric finishes and water repellents. Tetrachloroethylene is able to dissolve fats, greases, waxes, and oils without harming natural or man-made fibers. However, because of the growing popularity of washandwear fabrics, improved efficiency of dry cleaning equipment, and increased chemical recycling, the demand for tetrachloroethylene as a dry cleaning solvent has steadily declined. There are three major types of dry cleaning facilities, industrial, commercial and coin-operated. Industrial facilities have the largest average output, while smaller commercial facilities are the most common. Coinoperated dry cleaners are being phased out, and new coin-operated machines are no longer available (EPA 1995). A survey conducted by the International Fabricare Institute in 1989 indicated that 88.4% of the dry cleaners in the United States use tetrachloroethylene (Andrasik and Cloutet 1990). Another major use of tetrachloroethylene is as a vapor and liquid degreasing agent. Since tetrachloroethylene dissolves many organic ompounds, select inorganic compounds, and high-melting pitches and waxes, it can be used to clean and dry contaminated metal parts and other fabricated materials. It is also used to remove soot from industrial boilers (Verschuereen 1983). Tetrachloroethylene has been used as an anthelmintic in the treatment of hookworm and some nematode infestations, but it has been replaced by drugs that are less toxic and easier to administer(Budavari 1989; HSDB 1996). (ATSDR 1997)	Tetrachloroethylene is a volatile organic compound that is widely distributed in the environment. It is released to the environment via industrial emissions, and it is released from building and consumer products. Releases to atmosphere account for 99% of all environmental releases. It has been estimated that 80-90% of the tetrachloroethylene used annually in the United States is released to the environment, particularly to the atmosphere (EPA 1982a; Singh et al. 1979). Most releases of tetrachloroethylene during its use are directly to the atmosphere (EPA 1987b). A major portion of the atmospheric releases are attributed to evaporative losses in the dry cleaning industry (EPA 1982a). Other atmospheric emissions occur from metal degreasing uses, production of fluorocarbons and other chemicals, textile industry uses, and miscellaneous solvent-associated applications (EPA 1982a; Weant and McCormick 1984). Environmental releases of tetrachloroethylene also occur at sites of its manufacture and at sites of production of other chlorohydrocarbons (such as ethylene dichloride and methylene chloride) in which tetrachloroethylene is formed as a by-product (Weant and McCormick 1984). Tetrachloroethylene emissions to the atmosphere may occur at sites used in disposing the chemical (EPA 1985d), including incineration facilities for municipal and hazardous waste (Oppelt 1987). Tetrachloroethylene can also be released to the atmosphere from the ocean where it is produced by some macroalgae (Abrahamsson et al. 1995). A variety of industries that use tetrachloroethylene (such as metal degreasing and dry cleaning) generate aqueous wastes containing the compound which end up at waste treatment facilities (Weant and McCormick 1984). Tetrachloroethylene may also be emitted to groundwater from landfill leaching (Dewalle and Chian 1981; Kosson et al. 1985; Reinhard et al. 1984; Sabel and Clark 1984; Schultz and Kjeldsen 1986) as well as from pits and lagoons used for storage, treatment, and disposal of liquid wastes (Barbash and Roberts 1986). Many of the processes in which tetrachloroethylene is used as a solvent involve recycling the compound by various methods (EPA 1991a). These recycling methods produce tetrachloroethylene-containing sludges and dirty filters that have been landfilled in the past. Contamination of soil can occur through leaching of tetrachloroethylene from these disposal sites (Kosson et al. 1985; Schultz and Kjeldsen 1986). Leaking of tetrachloroethylene from underground storage tanks can also result in the contamination of soil. (ATSDR 1997)

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CASRN	Chemical Name	Chemical Class/Uses	DEQ Lists	Toxicity-ECOSAR (mg/L)	Human Carcinogen?	Released (kg/yr)	Monitoring Data ? (Oregon data sources indicated in bold)*	Storage in Oregon? (State Fire Marshall data)	Haz Waste Generation? (DEQ reports)	Oregon Site Cleanup (ECSI Database)	Oregon Use Data (PURS - kg/yr)	Uses of Chemical	Sources & Pathways to the Environment
79-01-6	Trichloroethylene	VOC	Focus only	2.927	Y(2A)	49890 (TRI) 184816.5 (EI)	<b>E, G, L, Q, YYY</b>	High	Y	E	-	The end-use pattern of trichloroethylene in the United States was estimated as follows (CMR 1986): vapor degreasing of fabricated metal parts, 80%; chemical intermediates, 5%; miscellaneous uses, 5%; and exports, 10%. The most important use of trichloroethylene, vapor degreasing of metal parts, is closely associated with the automotive and metals industries. Trichloroethylene is an excellent extraction solvent for greases, oils, fats, waxes, and tars and is used by the textile processing industry to scour cotton, wool, and other fabrics (IARC 1979; Kuney 1986; Verschueren 1983). The textile industry also uses trichloroethylene as a solvent in waterless dyeing and finishing operations (McNeil 1979). As a general solvent or as a component of solvent blends, trichloroethylene is used with adhesives, lubricants, paints, varnishes, paint strippers, pesticides, and cold metal cleaners (Hawley 1981; IARC 1979; McNeil 1979). Approximately 10 million pounds of trichloroethylene are used annually as a chain transfer agent in the production of polyvinyl chloride (McNeil 1979). Other chemical intermediate uses of trichloroethylene include production of pharmaceuticals, polychlorinated aliphatics, flame retardant chemicals, and insecticides (Mansville 1992; Windholz 1983). Trichloroethylene is used as a refrigerant for low-temperature heat transfer (Cooper and Hickman 1982; IARC 1979; McNeil 1979) and in the aerospace industry for flushing liquid oxygen (Hawley 1981; Kuney 1986). Various consumer products found to contain trichloroethylene include typewriter correction fluids, paint removers/strippers, adhesives, spot removers, and rug-cleaning fluids (Frankenberry et al. 1987; IARC 1979). (ATSDR 1997)	In a comprehensive study of trichloroethylene emission sources from industry conducted for EPA, the major source was degreasing operations, which eventually release most of the trichloroethylene used in this application to the atmosphere (EPA 1985e). Degreasing operations represented the largest source category of trichloroethylene emissions in 1983, accounting for about 91% of total trichloroethylene emissions. Other emission sources include relatively minor releases from trichloroethylene manufacture, manufacture of other chemicals (similar chlorinated hydrocarbons and polyvinylchloride), and solvent evaporation losses from adhesives, paints, coatings, and miscellaneous uses. Release of trichloroethylene also occurs at treatment and disposal sites. Water treatment facilities may release trichloroethylene from contaminated water through volatilization and air-stripping procedures (EPA 1985e). Trichloroethylene is also released to the atmosphere through gaseous emissions from landfills. The compound may occur as either an original contaminant or as a result of the decomposition of tetrachloroethylene. Trichloroethylene has also been detected in stack emissions from the incineration of municipal and hazardous waste (James et al. 1985; Oppelt 1987). Trichloroethylene is released to aquatic systems from industrial discharges of waste water streams (EPA 1985c). Various monitoring studies nationwide have also found that trichloroethylene from landfill leachate can contaminate groundwater (DeWalle and Chian 1981; Kosson et al. 1985; Reinhard et al. 1984; Sabel and Clark 1984; Schultz and Kjeldsen 1986). In fact, trichloroethylene is the most frequently reported organic contaminant in groundwater (Bourg et al. 1992). Trichloroethylene can be released into the soil through industrial discharges into surface waters and through landfill leachate. EPA regulations now restrict the disposal of hazardous waste containing greater than or equal to 1,000 mg/kg halogenated organic compounds (such as trichloroethylene) in landfills (EPA 1987e). (ATSDR 1997) In a comprehensive study of trichloroethylene emission sources from industry conducted for EPA, the major source was degreasing operations, which eventually release most of the trichloroethylene used in this application to the atmosphere (EPA 1985e). Degreasing operations represented the largest source category of trichloroethylene emissions in 1983, accounting for about 91% of total trichloroethylene emissions. Other emission sources include relatively minor releases from trichloroethylene manufacture, manufacture of other chemicals (similar chlorinated hydrocarbons and polyvinylchloride), and solvent evaporation losses from adhesives, paints, coatings, and miscellaneous uses. Release of trichloroethylene also occurs at treatment and disposal sites. 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71-43-2	Benzene	VOC & Combustion by-product	Focus only	6.359	Y(A)	1291 (TRI) 16218659 (EI)	<b>E, G, H, L, Q, YYY</b>	Low	Y	E	-	Benzene has been used extensively as a solvent in the chemical and drug industries, as a starting material and intermediate in the synthesis of numerous chemicals, and as a gasoline additive. Benzene recovered from petroleum and coal sources is used primarily as an intermediate in the manufacture of other chemicals and end products. The major uses of benzene are in the production of ethylbenzene, cumene, and cyclohexane. The percentage by volume of benzene in unleaded gasoline is approximately 1-2%. In the past, certain consumer products (such as some paint strippers, carburetor cleaners, denatured alcohol, and rubber cement used in tire patch kits and arts and crafts supplies) contained small amounts of benzene (Young et al. 1978). Other consumer products that contained benzene were certain types of carpet glue, textured carpet liquid detergent, and furniture wax (Wallace et al. 1987).	Currently, benzene is commercially recovered from both coal and petroleum sources. More than 98% of the benzene produced in the United States is derived from the petrochemical and petroleum refining industries. Catalytic reformat is the major source of benzene. In the past, landfilling and lagooning have been the major methods of disposal of benzene-containing industrial wastes (EPA 1982b). In addition to biodegradation, a portion of the benzene is expected to be lost due to volatilization. Unfortunately benzene, along with other hazardous contaminants, also leaches into groundwater from the lagooned wastes. Currently, the recommended method of disposal is to incinerate solvent mixtures and sludges at a temperature that ensures complete combustion. Underground injection also appears to be an important disposal method in some states. Benzene is released to the environment by both natural and industrial sources, although the anthropogenic emissions are undoubtedly the most important. Emissions of benzene to the atmosphere result from gasoline vapors, auto exhaust, and chemical production and user facilities. Benzene is released to water and soil from industrial discharges, landfill leachate, and gasoline leaks from underground storage tanks. Benzene is released to water from the discharges of both treated and untreated industrial waste water, gasoline leaks from underground storage tanks, accidental spills during marine transportation of chemical products, and leachate from landfills and other contaminated soils. There is a potential for release of benzene to water from hazardous waste sites. Benzene is released to soils through industrial discharges, land disposal of benzene-containing wastes, and gasoline leaks from underground storage tanks. Benzene is released into the atmosphere from both natural and industrial sources. Natural sources include crude oil seeps, forest fires, and plant volatiles (Brief et al. 1980; Graedel 1978). Major anthropogenic sources of benzene include environmental tobacco smoke automobile exhaust, automobile refueling. (ATSDR 2007)
100-41-4	Ethylbenzene	VOC	Focus only	1.13	N(D)	5107 (TRI) 2313787 (EI)	<b>E, G, H, L, Q</b>	Medium	-	E	-	It is estimated that >99% of the ethylbenzene manufactured in the United States is ultimately used in styrene production, while the remainder is exported or sold in solvent applications. Minor uses of ethylbenzene include use as a solvent, as a constituent of asphalt and of naphtha, and in fuels (ACGIH 2002; Verschueren 1983). Ethylbenzene is also used in the manufacture of acetophenone, cellulose acetate, diethylbenzene, ethyl anthraquinone, ethylbenzene sulfonic acids, propylene oxide, and $\alpha$ -methylbenzyl alcohol (HSDB 2007; Verschueren 1983). (ATSDR Draft 2007)	Ethylbenzene is an aromatic hydrocarbon naturally present in crude petroleum. It is also a combustion byproduct of biomass. It is widely distributed in the environment because of human activities such as the use of fuels and solvents (which account for the bulk of emissions) and through chemical manufacturing and production activities. Because of its volatile nature, ethylbenzene tends to partition to the atmosphere when it is released to the environment; therefore, exposure to this chemical is most likely to occur by inhalation. However, it is also present in trace amounts in some water supplies and food items. Emissions from gasoline-powered vehicles were found to be somewhat higher than from diesel trucks (Hampton et al. 1983). Similarly, ethylbenzene has been measured in jet fuel emissions (Katzman and Libby 1975) and has been reported in waste incinerator stack emissions (Jay and Steigiltz 1995; Junk and Ford 1980). Ethylbenzene has also been shown to be released into the atmosphere from volatile organic compound (VOC)-laden waste water in municipal sewer systems (Quigley and Corsi 1995). Emissions of ethylbenzene can arise from transport of hot asphalt from a manufacturing plant to a paving site and from subsequent road paving operations. Ethylbenzene releases to the air especially in indoor environments can occur with the use of consumer products such as pesticides, liquid process photocopiers and plotters, solvents, carpet glue, paints, varnishes, automotive products, adhesives, and fabric and leather treatments that contain ethylbenzene (Hodgson et al. 1991; Lillo et al. 1990; NAS 1980; Otson et al. 1994; Sack et al. 1992; Wallace et al. 1987b). Ethylbenzene (in addition to other aromatic hydrocarbons, such as benzene, styrene, and xylenes) has also been measured in cigarette smoke (Barrefors and Petersson 1993; Wallace et al. 1986, 1987c). Releases to water can occur as a result of industrial discharges (Snider and Manning 1982), fuel spillage (Gschwend et al. 1982; Tester and Harker 1981), leaking petroleum pipelines or underground storage tanks (Cotruvo 1985), landfill leachate (Barker 1987; Beavers et al. 1996; Chen and Zoltek 1995; Hallbourg et al. 1992), and the inappropriate disposal of wastes containing ethylbenzene (Eiceman et al. 1986). Ethylbenzene emissions to oceans occur as a result of offshore oil production, hydrocarbon venting, oil field brines, and tanker oil spills (Sauer et al. 1978). Ethylbenzene can be released to soils through the spilling of gasoline and other fuels (Sauer and Tyler 1995; Tester and Harker 1981); through the disposal of solvents and household products such as paint, cleaning and degreasing solvents, varnishes, and pesticides; through emissions from leaking underground storage tanks (Cotruvo 1985); and leaching from landfill sites (Barker 1987). (ATSDR Draft 2007)
106-46-7	Dichlorobenzene, 1,4- (Dichlorobenzene-p)	VOC	Focus only	0.0958	Y(ROC2)	nd (TRI) 124300 (EI)	<b>E, G, H, L, C, Q</b>	Medium	Y	E	-	For the past 20 years, 1,4-DCB has been used principally (25-55% of all uses) as a space deodorant for toilets and refuse containers, and as a fumigant for control of moths, molds, and mildews. It has been estimated that about 40% of the domestic use of 1,4-DCB is for space deodorants moth repellents (CMR 1999). In recent years, the use of 1,4-DCB in the production of polyphenylene sulfide (PPS) resin has increased steadily (25- 50% of its total use). 1,4-DCB is also used as an intermediate in the production of other chemicals such as 1,2,4-trichlorobenzene (approximately 10%). Minor uses of 1,4-DCB include its use in the control of certain tree-boring insects and ants, and in the control of blue mold in tobacco seed beds (CMR 1999; HSDB 2005). (ATSDR 2006)	There are no known natural sources of 1,4-DCB. Because 1,4-DCB is a volatile substance that sublimes at room temperature, most environmental releases are to the atmosphere. Less than 1% of environmental releases of 1,4-DCB are to surface water (EPA 1981a). The main route for the release of this substance to surface water is expected to be through its extensive use in urinal deodorant blocks. The principal sources of 1,4-DCB release to land are disposal of industrial waste in landfills, application of sewage sludge containing 1,4-DCB to agricultural land, and atmospheric deposition. (ATSDR 2006)

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50-00-0	Formaldehyde	Preservative, Combustion-By-Product	Focus only	3.871	Y(B1)	212671 (TRI) 19901504 (EI)	<b>E, G, L</b>	High	Y	E	-	Formaldehyde has been used for many years in consumer goods to deter spoilage caused by microbial contamination (WHO 1989). It has been used as a preservative in household cleaning agents, dishwashing liquids, fabric softeners, shoe-care agents, car shampoos and waxes, and carpet-cleaning agents (WHO 1989). Generally, the formaldehyde content in these products is less than 1% (WHO 1989). Formaldehyde is used as a chemical intermediate in the manufacture of a large variety of organic compounds, ranging from amino and phenolic resins to slow release fertilizers (Gerberich et al. 1980). Because of its low cost and high purity, formaldehyde has become one of the most important industrial and research chemicals in the world. The most prominent use of formaldehyde in the United States is manufacturing urea-formaldehyde resins; 23% of the annual capacity is used in this market. Formaldehyde solutions have also been used for disinfecting dwellings, ships, storage houses, utensils, and clothing. Formaldehyde is used as a tissue preservative and disinfectant in embalming fluids. In the agricultural industry, formaldehyde has been used as a fumigant, as a preventative for mildew and spelt in wheat, and for rot in oats (HSDB 1999). It has been used as a preplanting soil sterilant in mushroom houses (HSDB 1999). Formaldehyde has been used as a germicide and fungicide for plants and vegetables; as an insecticide for destroying flies and other insects; and in the manufacture of slow-release fertilizers. Approximately 80% of the slow-release fertilizer market is based on urea-formaldehyde-containing products. (ATSDR 1999)	Formaldehyde is released to outdoor air from both natural and industrial sources. Combustion processes account directly or indirectly for most of the formaldehyde entering the atmosphere. One important source of formaldehyde is automotive exhaust from engines not equipped with catalytic converters. Formaldehyde concentrations in jet engine exhaust have been found to range from 0.761 to 1.14 ppm (Miyamoto 1986). Formaldehyde is formed in large quantities in the troposphere by the oxidation of hydrocarbons (Calvert et al. 1972; WHO 1989) leading to elevated formaldehyde levels shortly after periods of high vehicular traffic (Grosjean et al. 1996). Pressed wood products contribute to indoor formaldehyde levels. Combustion sources and phenol-formaldehyde resin bonded products generally are weak emitters to indoor air. Common indoor combustion sources include gas burners and ovens, kerosene heaters, and cigarettes. Formaldehyde can also be emitted into indoor air from fish during cooking. Formaldehyde also arises in the atmosphere from natural sources. Formaldehyde is released to water from the discharges of both treated and untreated industrial waste water from its production and from its use in the manufacture of formaldehyde-containing resins. Formaldehyde can also be formed in seawater by photochemical processes. Formaldehyde is released to soils through industrial discharges and through land disposal of formaldehyde-containing wastes. (ATSDR 1999)
108-88-3	Toluene	VOC	Focus only	2.567	N(D)	89668 (TRI)	<b>E, G, L, Q, MM, YYY</b>	High	Y	E	-	Toluene is widely used and is produced by a large number of domestic chemical and petroleum companies. All nonisolated toluene is used in a BTX mixture added to gasoline to improve octane ratings (EPA 1990a). Nearly half of the isolated toluene is used to produce benzene (IARC 1988). About one-third of the isolated toluene is used as a solvent in paints, coatings, adhesives, inks, and cleaning agents. A portion of the isolated toluene goes into the production of polymers used to make nylon, plastic soda bottles, and polyurethanes. Toluene is also used as a starting material in the synthesis of trinitrotoluene (TNT). The remainder is used for pharmaceuticals, dyes, nail polish, and the synthesis of organic chemicals (Cosmetic Ingredient Review Panel 1987). Toluene was once used as an anthelmintic agent against roundworms and hookworms (Krinsky 1980).	Large amounts of toluene enter the environment each year, almost entirely as direct releases to the atmosphere. The largest source of toluene release is during the production, transport, and use of gasoline, which contains about 5-7% toluene by weight. Significant quantities are also released in association with the production, use, and disposal of industrial and consumer products that contain toluene. Small amounts are released in industrial waste water discharges and land disposal of sludges and petroleum wastes. Toluene used in paints, solvents, adhesives, inks, and similar products is also released to air upon use. Toluene may also be released during disposal processes, notably medical waste incineration. Toluene may be released to water from industrial discharges and urban wastes, or by spills and leaks of gasoline. Release of toluene to land may occur in association with gasoline spills, leaking underground gasoline storage tanks, or land disposal of municipal sludges or refinery wastes. (ATSDR 2000)

NOTE 1: For TRI data, nr= no release reported in Oregon from database; dash (-) indicates that the chemical is not reportable under TRI

NOTE 2: For State Fire Marshall Data: L ow= used at 5 or less facilities, with total max range of no more than 1000-4999; Medium = used at 6-14 facilities, with total max range of no more than 10000-249000; High = used at 15 or more facilities and/or max range exceeds 250,000+; dash (-) indicates not reported

NOTE 3: For monitoring Detects, **BOLD** indicates detected in Oregon, **NORMAL** indicates Detected in the Environment Elsewhere.

NOTE 4: Monitoring data source references can be found on the accompanying Citations table