High Priority Chemicals of Concern for Children's Health (HPCCCH)

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Chemical name	Potential ACUTE health effects (sudden or short-term)	Potential CHRONIC health effects (over time or long-term)	CAS number
1,1,2,2-Tetrachloroethane	Nervous system effects	Cancer of the blood system (includes spleen, bone marrow, kidney and liver)	79-34-5
1,4-Dioxane	Upper respiratory irritant; central nervous system effects	Liver and kidney cancers; gallbladder and nervous and digestive system effects	123-91-1
Decabromodiphenyl ether (BDE-209)		Thyroid, liver, nervous and immune system effects; persistent, bioaccumulative and toxic	1163-19-5
2,4-Diaminotoluene	Severe eye and skin irritation; nose and throat irritant	Liver, breast, and skin cancers; reproductive, blood, cardiovascular and nervous system effects; may damage DNA in cells	95-80-7
2-Aminotoluene (Also called ortho-toluidine.)		Bladder and liver cancers	95-53-4
2-Ethylhexanoic acid		Developmental effects; reproductive and respiratory system effects	149-57-5
2-Ethyl-hexyl-4-methoxycinnamate (Also called octinoxate.)		Endocrine disruptor; has estrogenic properties; thyroid effects	5466-77-3
2-Ethylhexyl-2,3,4,5-tetrabromobenzoate (TBB)		Reproductive, developmental, neurological, and thyroid effects. Early-onset female puberty. Affects heart valves; persistent and bioaccumulative	183658-27-7
2-Methoxyethanol	Eyes and respiratory system effects	Long-term exposure can cause fatigue, nausea, tremors and anemia; blood, kidneys, central nervous system and hematopoietic system (bone marrow stem cells) effects; developmental effects (including low birth weight and miscarriage); reproductive system effects, including fertility, sperm, and male gonads	109-86-4

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3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine (Also called ortho-Tolidine.)		Cancers of multiple sites, including skin, liver, mouth, intestinal tract, lung and breast	119-93-7
4-Nonylphenol; 4-NP and its isomer mixtures		Endocrine disruption; estrogen signaling effects; sperm quality and female reproductive system effects	104-40-5; 84852-15-3; and 25154-52-3
4-tert-Octylphenol (Also called 4-(1,1,3,3-tetramethylbutyl)phenol.)		Endocrine disruption; nervous and reproductive system effects; developmental effects	140-66-9
Acetaldehyde		Nose and larynx cancers; developmental effects	75-07-0
Acrylonitrile	Headaches and nausea	Breast, digestive tract, central nervous system effects; lung, prostate, tongue and other cancers; developmental effects	107-13-1
Aniline	Dizziness and headaches; eye and skin irritant; methemoglobinemia	Cancers of the blood system, which includes the spleen, bone marrow, kidney and liver; methemoglobinemia	62-53-3
Antimony and Antimony compounds	Eye irritation; skin and gastrointestinal system effects	Lung cancer; eye irritation; respiratory, gastrointestinal, reproductive, and cardiovascular system effects; skin effects; may damage DNA in cells	7440-36-0
Arsenic and Arsenic compounds, including arsenic trioxide and dimethyl arsenic	Gastrointestinal and cardiovascular system effects; hair loss	Lung, bladder, skin, and other cancers; reproductive system effects; cognitive development effects in children	7440-38-2; 1327-53-3; and 75-60-5
Benzene		Blood cancer; anemia; immune and reproductive system effects; developmental effects	71-43-2

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Benzene, Pentachloro		Endocrine disruption; developmental effects; thyroid and reproductive system effects	608-93-5
Benzophenone-2 (Bp-2)		Endocrine disruption; estrogen signaling and kidney effects; photo toxicant (adverse effects are more pronounced in the light); cancer; may damage DNA in cells	131-55-5
Bisphenol A (BPA)		Reproductive system effects; developmental effects; cognitive development and breast effects; early onset of puberty in females; endocrine disruption	80-05-7
Bisphenol F (BPF)		Developmental and reproductive effects	620-92-8
Bisphenol S (BPS)		Kidney damage; Reproductive and developmental effects such as estrogen disruption	80-09-1
Butyl benzyl phthalate (BBP)		Cancer; developmental effects; reproductive system effects; endocrine disruption	85-68-7
Butylated hydroxyanisole (BHA)		Endocrine disruption; stomach cancer; kidney, adrenal and thyroid effects; reproductive system effects	25013-16-5
C.I. Solvent yellow 14		Liver cancer; may damage DNA in cells	842-07-9
Cadmium and cadmium compounds		Lung, and other organ cancers; liver and kidney effects; reproductive system effects; central nervous system development effects; may damage DNA in cells	7440-43-9
Carbon disulfide		Nervous and reproductive system effects; developmental effects; brain, liver and heart effects	75-15-0
Chlorinated paraffins		Target organs include liver, kidney, and thyroid; shown to be carcinogenic, persistent and bioaccumulative	108171-26-2

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Cobalt and cobalt compounds	Respiratory effects such as asthma, wheezing and pneumonia	Lung and other organ cancers; reproductive system effects; developmental effects; heart, liver and kidney effects; may damage DNA in cells	7440-48-4
Di-2-ethylhexyl phthalate (DEHP)	May trigger asthma	Liver cancer; endocrine disruption; developmental effects; reproductive system effects, including the testes; skeletal system and neural tube development and heart effects; developmental effects in unborn babies; diabetes and obesity; persistent, bioaccumulative and toxic	117-81-7
Dicyclohexyl phthalate (DCHP)		Endocrine disruption; developmental effects, reproductive system effects	84-61-7
Diethyl phthalate (DEP)		Endocrine disruption; reproductive system effects	84-66-2
Di-n-butyl phthalate (DBP)		Endocrine disruption; developmental effects; reproductive system effects	84-74-2
Diisobutyl phthalate (DIBP)		Developmental and reproductive effects	84-69-5
Diisodecyl phthalate (DIDP)		Developmental effects; liver effects	26761-40-0
Diisononyl phthalate (unbranched) (DINP)		Developmental effects; Liver, spleen and kidney cancers; reproductive system effects	28553-12-0
Di-n-octyl phthalate (DnOP)		Liver, kidney, thyroid and immune system effects	117-84-0
Estragole		Liver cancer; multiple organ effects; may damage DNA in cells	140-67-0
Ethylbenzene	Respiratory effects; eye irritant; dizziness	Liver, kidney and lung cancers; developmental effects; nervous system, blood, liver, kidneys and inner ear/hearing effects	100-41-4

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Ethylene glycol		Central nervous system, heart, lung, kidney and liver effects; developmental effects	107-21-1
Ethylene glycol monoethyl ether (Also called 2-ethoxyethanol.)		Developmental effects; toxic to blood cells; reproductive system effects, including spontaneous abortions, disturbed menstrual cycle, subfertility and developmental defects to male reproductive organs	110-80-5
Ethylhexyl diphenyl phosphate (EHDPP)		Reproductive system effects; effects on liver, blood, kidney, and adrenal glands	1241-94-7
Formaldehyde	Skin irritant; gastrointestinal system effects if found in drinking water	Leukemia; nose, throat, lung, eye, nose, and throat cancers; can cause asthma- like respiratory problems	50-00-0
Hexabromocyclododecane		Reproductive system effects; developmental effects; thyroid and liver effects; persistent, bioaccumulative and toxic	25637-99-4
Hexachlorobenzene		Liver cancer; developmental effects; endocrine disruption; central nervous system effects; skin sores; thyroid effects; accumulates in body fat	118-74-1
Hexachlorobutadiene (HCDB)		Cancer; nervous and reproductive system effects; persistent, bioaccumulative and toxic; developmental effects; kidney effects; may damage DNA in cells	87-68-3
Mercury and mercury compounds		Central nervous system effects; developmental effects; persistent, bioaccumulative and toxic	7439-97-6
Methyl ethyl ketone (Also called MEK or 2-butanone.)	Eye, nose, throat and skin irritant	Reproductive and central nervous system effects; developmental effects	78-93-3

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Methylene chloride (Also called dichloromethane.)		Lung, liver, and breast cancers; reproductive and nervous system effects; developmental effects	75-09-2
N-Methylpyrrolidone (Also called N-methylpyrrolidone or NMP.)		Developmental effects (low fetal and birth weights, developmental delays and impairment of cognitive skills in offspring)	872-50-4
N-Nitrosodimethylamine		Liver, kidney and lung cancers	62-75-9
N-Nitrosodiphenylamine		Bladder cancer; histiocytic lymphoma (a rare form of lymph tissue cancer)	86-30-6
Parabens		The following five chemicals are grouped together because they share similar characteristics, including the following: Endocrine disruption; estrogen signaling effects; increased risk for breast cancer; bioaccumulative; male reproductive system effects, including effects to sperm development and testosterone levels	
Butyl paraben		Same as above	94-26-8
Ethyl paraben		Same as above	120-47-8
Methyl paraben		Same as above	99-76-3
4-Hydroxybenzoic acid		Same as above	99-96-7

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Propyl paraben		Same as above	94-13-3
4-Chloroaniline (Also called para-Chloroaniline.)	Burns skin and eyes; interferes with ability of the blood to carry oxygen (methemoglobinemia and anemia)	Spleen and liver cancers; red blood cell effects; methemoglobinemia; anemia; kidney and the nervous system effects; may damage DNA in cells	106-47-8
Tetrachloroethene (Also called perchloroethylene or tetrachloroethylene.)	Respiratory system effects; neurological and central nervous system effects	Liver, esophageal, cervical, bladder and breast cancers; leukemia; multiple myeloma and non-Hodgkin's lymphoma; central nervous system and kidney effects; reproductive system effects, including menstrual disorders, altered sperm quality and reduced fertility; developmental effects in unborn babies	127-18-4
Perfluorooctanyl sulphonic acid and its salts (PFOS)		Developmental effects; liver effects; developmental effects in children and unborn babies; thyroid effects; persistent, bioaccumulative and toxic	1763-23-1
Phenol	Respiratory irritation, headaches, burning eyes and skin; irregular heart beat	Developmental effects; liver effects	108-95-2
4-Octylphenol		Endocrine disruption; interference with estrogen signaling	1806-26-4
Short-chain chlorinated paraffins (SCCP)		Cancer of liver, kidney, and thyroid; persistent and bioaccumulative	85535-84-8
Styrene	Eye irritant; nervous respiratory system effects	Leukemia and lymphoma; developmental effects; hearing effects; changes in neurochemicals; pancreas and esophagus effects; liver, blood, kidney, stomach and endocrine, nervous and respiratory system effects; may	100-42-5

		cause genetic damage in the white blood cells	
Chemical name	**Potential ACUTE health effects (sudden or short-term)**	**Potential CHRONIC health effects (over time or long-term)**	**CAS number**
Tetrabromobisphenol A (TBBPA)		Thyroid and kidney effects; binds to estrogen hormone receptors at high concentrations; persistent and bioaccumulative	79-94-7
Toluene	Cardiac arrhythmia; central nervous system effects	Central nervous system effects; developmental effects; liver, lung and kidney effects	108-88-3
Triphenyl phosphate (TPP)	Allergic reactions associated with consumer products	Reproductive and developmental effects such as decreased sperm count and altered male hormone levels; accelerates onset of Type-2 diabetes	115-86-6
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)		Liver, kidney and testicle cancers; blood and thyroid effects	13674-87-8
Tris (1-chloro-2-propyl) phosphate (TCPP)		Female reproductive and development effects; TCPP is structurally similar to other carcinogenic flame retardants	13674-84-5
Tris(2-chloroethyl) phosphate (TCEP)		Kidney cancer; reproductive system effects, including fertility impairment and male reproductive effects; central nervous system effects	115-96-8
Vinyl chloride	Central nervous system effects	Liver, brain, lung, lymphatic system and blood cancers; Lou Gehrig's Disease (ALS); immune and reproductive system effects; developmental effects; may damage DNA in cells	75-01-4