**Most harmful 50 toxins used on military bases and their health impacts**

**AGENT ORANGE - HERBICIDE, DEFOLIANT**

Diabetes Mellitus

Heart valve problems

Eczema .

Cancer

Miscarriage

Birth Defects

Congenital Malformations

Blood Diseases

Chloracne

Lymphatic & Hematopoietic issues

Possible ALS - Amyotrophic Lateral Sclerosis

**ALDRIN - Pesticide**

Uterine cancer

Thrombocytopenia

Psychiatric disturbances

Parkinson's disease/Movement disorders

Lymphoma non ­Hodgkin's

Colo­rectal cancer

Cognitive impairment

Impaired learning

Impaired memory

Decreased attention span

Breast cancer

Adult Onset Leukemias

Uncontrolled muscle movements

Developmental problems

Endocrine problems,

Hepatic problems

Immunological problems

Neurological problems

Headache

Dizziness

Vomiting

Uterine Cancer

Thrombocytopenia

Psychiatric disturbances

Parkinson's Disease

Lymphoma non-Hodgkin's,

Colo-rectal Cancer,

 Cognitive Impairment,

Breast Cancer,

Central Nervous System

**AROCLOR (PCB’s)**  Used in capacitors, transformers. hydraulic fluid. Pesticides additive.

Probable carcinogen.

Reproductive problems

Developmental problems

Damage to organs

Fatty liver

Hepatomegaly

Immunosuppressive effects

Endocrine Disruptor

**ARSENIC** Pigments & dyes, bronzing, pyrotechnics, pesticide. pressure treated lumber.

Peripheral neuropathy

Hyperkeratosis

Hyperpigmentation

Diabetes ­ Type II

Coronary artery disease

peripheral vascular disease

atherosclerosis

Steatosis (fatty liver)

Skeletal malformations

Renal (kidney) cancer

Raynaud's phenomenon

Pneumonitis hypersensitivity

Neural tube defects/CNS malformations,

Nasal septal perforation

Myocardial ischemia

Low birth weight/Small for Gestational Age

Hypertension,

Hepatoportal Sclerosis,

Fetotoxicity (Miscarriage/spontaneous abortion; stillbirth),

Congenital malformations ­ general,

Cirrhosis

Cardiomyopathy

Bladder cancer

Arrhythmias

Anemia ­ hemolytic

Alopecia

Adult Onset Leukemias

Neurasthenia (Organic affective syndrome)

Myelodysplastic syndrome

Metal fume fever

Immune suppression

Hepatocellular cancer (Liver cancer)

Genito­urinary malformations

Cognitive impairment (includes impaired learning, impaired memory, and decreased attention span),

Acute tubular necrosis

CANCER (Kindney, Skin, Bladder, Liver, Lung, Prostate).

Memory Loss

Peripheral Neuropathy

Reproductive Issues

Anemia

Central Nervous System Disorders.

**ASBESTOS** Is not banned! It is used in oil field brake blocks, automotive brake systems, friction materials, gaskets, some talc products. Older applications include; insulation, ceiling tiles, flooring, pipe insulators, plumbing and lab uses.

Lung cancer

Pulmonary fibrosis

Pneumoconiosis

Pleural disease

Stomach cancer

Kidney cancer

Immune suppression,

Autoimmune antibodies

Antinuclear Antibodies

Ovarian cancer

Myelodysplastic syndrome

Multiple myeloma, Melanoma

Lymphoma non ­Hodgkin's

Laryngeal cancer

Colo­rectal cancer

Bladder cancer

Adult Onset Leukemias

Larynx cancer

Larnyx

Lung damage

Mesotheliomia,

Heart rhythm disturbances,

Possible lung damage

Sarcoidosis

**BENZENE** Crude oil and gasoline contain Benzene. Benzene is used to make plastics, resins, and nylon and synthetic fibers. Benzene is also used to make some types of lubricants, rubbers, dyes, detergents, drugs, and pesticides.

Possible carcinogen.

Fatal if swallowed

Possible reproductive toxicity.

Acutely Toxic if Inhaled.

Repeated exposure-organ toxicity.

Very hazardous for eye exposure.

Headache

Weakness

Nausea.

Decreased red blood cells

Pancreatic cancer

Lymphatic & Hematopoietic issues

Non-Hodgkins Lymphoma

Acute Lymphocytic Leukemia

Acute Myeloid Leukemia

Multiple Myeloma

Aplastic Anemia

Bone marrow Dyplasia

Immune system damage.

**BROMO.** Chemical compounds in which bromine is present. Used as a solvent for fats, waxes & resins. Used as a flame retardant and in fire extinguishers.

Possible Carcinogen

Toxic for kidneys

Toxic if swallowed, inhaled or skin contact

May be fatal if inhaled

Testicular cancer

Stomach cancer

Prostate cancer

Sino-nasal cancer

Neurotoxin

Endocrine disrupter.

Toxic to Central nervous system, upper respiratory tract.

Repeated exposure organ damage.

Asthma.

Serious eye irritation.

Skin, respiratory irritation.

Hormonal changes.

**CADMIUM** used in old batteries.

Breast cancer

Lung cancer

Prostate cancer

Pancreatic cancer

Nasopharynx cancer

Kidney cancer

Osteoarthritis

Kidney disease

Bone & Joint disease

Lung Disease

Osteoporosis

Nervous System disorders

**CARBON / HYDROCARBON** Alkanes. Alkenes, alkynes, cycloalkanes, aromatic hydrocarbons. Used mostly as a fuel, industrial polymers, polystyrene, dyes and lubricants.

Suspected carcinogen.

May be fatal if swallowed or enters airway.

Substantial risk of

Lung cancer risk

Skin cancer risk

Bladder cancer risk

Possible genetic damage

Reduced fertility

Hypertension

Cognitive impairment

Single exposure organ damage

Movement disorders (Parkinson’s)

Menstrual disorders

Vision & hearing problems.

Adult onset Leukemia

Arrhythmias

Coronary artery disease

Effects on fetus.

Thyroid disorders

Hypothyroidism

Pre­term delivery

Nephrotic syndrome

Glomerulonephritis

Congenital malformations

Fatigue

headaches

nausea, numbness.

**CHLORDANE**. Pesticide, Insecticide, Fungicide

Kidney damage

Liver damage

Nervous system damage

Heart damage

GI damage

Nose ulcers

Throat ulcers

Bronchitis

Pneumonia

palpitations

Headaches

Confusion

Endocrine disruptor

Anemia.

**CHLORINE** Used to manufacture PVC plastic. Solvent for metal working. Dry cleaning fluid. Electronics. Commercial drinking water disinfectant. Sewage plant clean-up. Commercial swimming pools. Various manufacturing uses.

toxic if swallowed or inhaled.

Central Nervous system damage

Reproductive toxin.

Kidney damage

Liver damage

Eye damage.

Skin irritation

Eye irritation

Respiration system irritation. C

**CHROMIUM (ALL)** Used in automotive plating, stainless steel, dyes & pigments, tanning of leather, timber treatment, Strengthening agent.

Stomach cancer

Pulmonary fibrosis

Photosensitivity

COPD ­ chronic obstructive pulmonary disease

Chronic renal disease

Lung cancer

Brain cancer

Acute tubular necrosis.

eye damage

Soft tissue sarcoma

Renal (kidney) cancer

Reduced Fertility Male

Prostate cancer

Pancreatic cancer

Immune suppression

Esophageal cancer

Bladder cancer

Autoimmune antibodies

positive ANA,

Adult Onset Leukemias

Abnormal sperm

Adult Onset Diabetes

Reproductive issues

Pulmonary Fibrosis

**CHRYSENE** Made from coal tar. Creosote. Dye manufacturing.

Lung cancer

Stomach cancer

Skin cancer

Reproductive issues

Low birth weight

Irritation of skin

Reduces ability to fight infections.

**COBALT** Cobalt blue dye. Used to manufacture high-performance alloys. Used to make magnets, medical prosthetics, jewelry, batteries, catalysts, Cobalt-60 is used for radiation therapy. Component of B12.

Breathing difficulties.

Nausea,

Vomiting

Coughing

Thyroid cancer

Kidney Damage

Lung Disease

Hypo-Thyroid.

Tinnitus,

Nerve damage

**DDD / DDE / DDT** Pesticide, insecticide.Banned in 1972. Was widely used in agriculture.

Liver cancer likely

Central nervous system disorders.

Endocrine toxicity

Reproductive system toxicity

Excessive Sweating

Headache

Nausea

Vomiting

Dizziness.

Passes to infant through breast milk.

Developmental issues.

Organ development problems

Endocrine problems,

reproductive system problems

**DIELDRIN** PESTICIDE. Used in timber preservation, plastics, rubber coverings, telecommunication cables, plywood and other lumber

Uterine cancer

Thrombocytopenia

Psychiatric disturbances

Parkinson's disease/Movement disorders

Lymphoma non ­Hodgkin's

Colo­rectal cancer

Cognitive impairment (includes impaired learning, impaired memory, and decreased attention span),

Breast cancer

Adult Onset Leukemias

Uncontrolled muscle movements

Headache

Dizziness

vomiting.

**DIOXINS**

Developmental, reproductive & endocrine problems.

Serious Eye Damage.

Respiratory irritant.

Headache,

Nausea,

dizziness

blurred vision

Chloracne

Diabetes

Lymphatic & Hematopoietic issues

Endometriosis,

**ENDOSULFAN**  INSECTICIDE. PESTICIDE. Banned in 2011.

Possible Carcinogen.

Neurological disorders

Serious eye irritation.
Acute dermal toxicity.

Endrocrine disrupter.

Severe kidney problems.

**ENDRIN** INSECTICIDE. PESTICIDE. RODENTICIDE.

Suspected carcinogen

May cause CNS depression.

organ damage.

Irritation,of eyes, nose, throat, blurred vision,

Vomiting

Diarrhea

dermatitis.

Neurotoxin.

**ETHANE/ETHENE**

Probable carcinogen.

Toxic to Kidneys, central nervous system, Liver, heart & lungs.

Cirrhosis. Hepatitis.

frostbite.

Nausea, vomiting, diarrhea, drowsiness, dizziness. Ethene is used to accelerate rippening of fruits (bananas, citrus). Used in plastics manufacturing.

Ethyl.. (12) Poison. Carcinogenic. Fatal if swallowed, Fatal if skin contacted, Fatal if inhaled. IDLH Immediately Dangerous to Life or Health. Inhalation Hazard, Possibly mutagenic. Increase in liver tumors. Toxic for reproduction. May damage fertility or unborn child. Repeated exposure organ damage. Stomach irritation, diarrhea. Suspected of causing genetic defects. Oral clefts (cleft lip and palate). Used to make antifreeze, polyester fibers, polyethylene, polymers. Used as a plany growth hormone. Sprayed as a fruit ripening agent. Used to promote flower formation in cucumbers. Solvent, diluent. Adhesives, paint, degreasers, additives. Alcoholic beverages. IDLH. CANCER. POISON. FATAL if swallowed.

**ETHYLENE**  IDLH Immediately Dangerous to Life or Health. Suspected of causing cancer. Inhalation, ingestion may lead to death. Liver & kidney damage. Reproductive system effects. Reasonably anticipated to be a human carcinogen. Poison. neurological effects (mood, behavior, coordination, dizziness, headache). Acute inhalation toxicity. Skin burns, absorption may be toxic. Highly flammable liquid and gas. Lung, eye, skin irritation. Oral clefts (cleft lip and palate). MADE FROM ETHANE OR NAPHTHA IN AN ETHANE CRACKER. Synthetic chemical use for field spray on plants as a growth medium. Used in food packaging, construction components (high-efficiency windows, piping,electrical components). Heavy use in the plastics uindustry. ILDH. CANCER Lymphatic & Hematopoietic issues, Reproductive issues

**FURANS**  Fatal if swallowed, known carcinogen. Serious eye damage, possible organ toxicity. May cause fatty liver. Immune system and thyroid effects. Repeated exposure organ damage. Respiratory system,irritation. PRESERVATIVE, FUNGICIDE, HERBICIDE, DISINFECTANT. Used to kill mold. Used to make resins. FATAL if swallowed. Chloracne, Diabetes, Lymphatic & Hematopoietic issues,

**HCH**  Suspected of causing cancer. Toxic if swallowed. Harmful with skin contact. Very toxic to aquatic life. INSECTICIDE. Used in water treatment plants. Used as a water softener. CANCER. FATAL if swallowed or skin contact

**HEPTACHLOR** Probable Carcinogen. Fatal if swallowed or skin contact. Acute oral and inhalation toxicity. Single exposure organ damage. Possible severe skin damage. Suspected of damaging fertility or the unborn child.. Developmental, reproductive & endocrine probplems. Repeated exposure organ damage. Skin irritation, eye irritation INSECTICIDE. Ag and home use. Largely phased out. CANCER. FATAL if swallowed.

**HEXA..** Probable carcinogen. Acutely toxic if swallowed, inhaled. Target Organs - Respiratory system. Repeated exposure organ toxicity. Harmful effects on liver, blood CNS, heart and immune systems. Possible reproductive abnormalities. Causes severe skin burns and eye damage [Danger Skin corrosion/irritation] Reproductive issues. Compromised immune system. Headache, Nausea, GI Disturbances, Decrease in red and white blood cells. Eye redness, sneezing, salivation, blistering, burns & cough. Used in Paint and paint thinners. Used to make other chemicals. Swelling agent or dispersing media. Used as a base for manufacture other chemicals. CANCER. TOXIC if swallowed or inhaled.

**HEXANE**  Probable carcinogen. Toxic, possibly fatal if swallowed, inhaled. Reproductive issues. Compromised immune system. Harmful effects on liver, blood, heart, immune system and central nervous system. Repeated exposure organ damage. Decrease in red & white blood cell counts. Used in the food industry to extract oils from seeds (soybeans, sunflowers, canola, corn). A contaminent in all soy products. Not regulated by FDA. Used in adhesive sprays, art materials, stain removers. CANCER. TOXIC if swallowed. Permanent nerve damage. CNS depression, nausea, confussion, dizziness, headaches.

**JET FUEL** Central Nervous System depression, convulsions, loss of consciousness, coma or death. Liver damage, immune response suppression, neurological & hearing disturbances Skin, eye damage. JP-4, JP-5 JP-7 JP-8 fuels. Central Nervous System Depressiom, can lead to DEATH. Adverse liver function. Abnormal electroencephalograms, shortened attention spans.

**LEAD**  Fatal if swallowed, inhaled or skin contact. Seizures, Reduced Fertility Male (infertility and subfertility), Peripheral neuropathy, Hypertension, Gout, Developmental Delay, Decreased I.Q../Mental retardation, Decreased Coordination/ Dysequilibrium, Coronary artery disease, peripheral vascular disease, atherosclerosis, Cognitive impairment (includes impaired learning, impaired memory, and decreased attention span), Chronic renal disease, Behavioral problems, Anemia ­ hemolytic, ADD/ADHD, hyperactivity, Abnormal sperm (morphology, motility, and sperm count) Toxic for reproduction. Reduced Fertility ­ Female (infertility and subfertility), Psychiatric disturbances, Pre­term delivery, Porphyria ­ toxic, Nephrotic syndrome, Low birth weight/Small for Gestational Age, Immune suppression, Hormonal changes (levels of ciRemediate Completeulating sex hormones ­ FSH/LH, Inhibin, and/or estrogens, progesterones, and anderogens), Hearing loss, Glomerulonephritis, Delayed growth, Cardiomyopathy, Arrhythmias, Altered time to sexual maturation (accelerated or delayed puberty). Toxic for reproduction. May damage fertility or unborn child. Wilms Tumor, Thyroid disorders ­Hypothyroidism, Stomach cancer, Osteoporosis, Neurasthenia (Organic affective syndrome), Lung cancer, Erectile dysfunction, Congenital malformation Craniofacial, Carcinoid, Brain cancer ­adult, Bladder cancer, Alzheimer's, ALS (Lou Gehrig's disease). Repeated exposure organ damage. May lead to central nervous system disorders. Used in battery manufacture. Ammunition, burial vault liners, ceramic glazes, leaded glass, solder, water systems, crystal, paints and protective coatings. Radiation shielding. FATAL if swallowed, inhaled or skin contact. Bone & Joint issues, Memory Loss (may be severe), Peripheral Neuropathy. High Blood pressure, Reproductive system damage, Anemia, Encephalopathy (Brain Damage), Kidney disease, Depression, Anxiety, Immune system disorders.

**LEWISITE** Known carcinogen. Death may result from lack of oxygen. Causes inflammation, blisters and general destruction of tissue. Burning pain, violent sneezing, nosebleed, sinus pain, shortness of breath. An organoarsenic compound. Used in chemical weapons. Blister agent. CANCER. Extensive skin burning, chronic respiratory disease, permanent blindness. Central Nervous System disorders. Blistering Agent. Contains Arsenic.

**LINDANE** Suspected of causing cancer. Toxic if swallowed. Harmful effects on liver, blood CNS, heart and immune systems. Endocrine disrupter. Decrease in red and white blood cells. INSECTICIDE. PESTICIDE. Use in wool production. Used in canola oil production. 90% of detection in human is from food. Major sources are: Mother's milk, canola oil, peanuts, rice, sunflower seeds, peas, wheat, barley, oats. Also used for creams and shampoos for lice & mite control. CANCER. TOXIC if swallowedd.

**MERCURY, METHYL MERCURY** Fatal if swallowed, inhaled or skin contact.Peripheral neuropathy, Hearing loss, Behavioral problems, Acute tubular necrosis Low birth weight/Small for Gestational Age, Immune suppression, Glomerulonephritis, Fetotoxicity (Miscarriage/spontaneous abortion; stillbirth), Congenital malformations ­ general, Chronic renal disease, Autoimmune antibodies, positive ANA, Aplastic anemia, Anemia ­ hemolytic. Repeated exposure organ damage. Thyroid disorders ­Hypothyroidism, Scleroderma, Reduced Fertility ­ Female (infertility and subfertility), Reduced Fertility Male (infertility and subfertility), Neurasthenia (Organic affective syndrome), Nephrotic syndrome, Myocardial ischemia, Menstrual disorders, Hormonal changes (levels of ciRemediate Completeulating sex hormones ­ FSH/LH, Inhibin, and/or estrogens, progesterones, and androgens), Coronary artery disease, peripheral vascular disease, atherosclerosis. Used in thermometers, thermostats, blood pressure monitors, dental fillings, light switches, vaccine preservative, nasla sprays, eye drops, antiseptics and diaper rash ointments. Also used in batteries, semi-conductors, florescent ligh bulbs, mascara, paper manufacturing and some paints. Many fish are high in mercury content. FATAL if swallowed or inhaled. Bones (including spine, & bone density) issues, joint degenerative disease, Osteoarthritis, inflamation. Peripheral neuropathy. Central Nervous System disorders, Reproductive disorders, Immune system disorders, Kidney disease.

**METHYL** Probable carcinogen. Fatal or Toxic if swallowed or inhaled. Possible reproductive toxicity, damage to unborn child. Toxic with skin contact. Single exposure organ damage. Possible skin corrosive. Serious eye damage. Possible central nervous system depression. Toxic for reproduction. May damage fertility or unborn child. Repeated exposure may can organ damage. Suspected of causing genetic defects. Nausea, vomiting, diarrhea, blood in urine, yellowing of skin. Target Organs: Blood, kidneys, CNS, liver, spleen, lungs, GI, eyes & skin. Fatigue, lack of appetite, agitation, paleness. Severe skin burns and eye damage.

Variety of commercial and industrial uses as a fuel, manufacture of other chemicals. Chemical agent for pharmateuticals and Agricultural products. Used to make synthetic fibers for clothing, adhesives, paint, plywood, CANCER. FATAL or TOXIC if swallowed or inhaled. TOXIC with Skin contact.

**NITRO** rdx & tnt (28) Probable of causing cancer. Fatal if swallowed. CNS depression. Acute toxicity if ingested, skin contact or inhalation. Anemia, liver malfunction. Spleen dilation. Increased risk of kidney & bladder cancer. Central nervous system depression. Toxic for reproduction. Reduces body's ability to carry oxygen. Cirrhosis, Acute hepatocellular injury (Hepatitis) Single exposure organ toxicity. Toxic for reproduction. May damage fertility or unborn child. Possible cataracts. Anemia. Repeated exposure organ damage. Severe eye, skin burns. May cause convulsions & death. MASS EXPLOSION HAZARD. Steatosis (fatty liver), Methemoglobinemia, Coronary artery disease, peripheral vascular disease, atherosclerosis, Serious eye irritation. Skin, respiratory irritation. Reproductive Toxicity. Harmful if swallowed, Nausea, vomiting & diarrhea. Skin, eye irritation. Headaches, fever, nausea, bloody urine. Menstrual disorders, Erectile dysfunction, Abnormal sperm (morphology, motility, and sperm count) Used in manufacture of high explosives and propellants. Heavily used in military. Quary and mining sites. Some are used in cement, paper clips, silver production & use, shoe polish, oxidizing agent, dye component, many pharmateucials, gasoline, CANCER (Kidney, Bladder). FATAL if swallowed. TOXIC if ingested, inhaled or skin contact. Cirrhosis, Hepatitis.

NOx Nitrogen Oxide Fatal if inhaled. Causes severe skin burns and eye damage. May cause or intensify fire; oxidizer. Found in power plants (from fossil fuel burning) and industrial sites (cement, waste incinerators, plass manufacturing plants). Nitrous Oxide is used in hospitals, dental offices, labratories, as an aerosol, food processing, refrigeration, rocket fuel propellant, instrument and sensor calibration. FATAL if inhaled.

**PAH** - Polycyclic Aromatic Hydrocarbons (3) Probable carcinogen. May be fatal if inhaled. Scrotal cancer, Laryngeal cancer, kidney cancer, skin cancer, Prostate cancer. Pancreatic cancer. Esophagel cancer. Bladder cancer. Lung Cancer. Breast Cancer. Bone cancer. Colo-rectal cancer. Oral cancer. Harmful if swallowed.May damage blood, kidneys, liver, skin, Central Nervous System, eyes, Ewings Sarcoma, Adult onset Leukemia. Corony artery disease, Vascular disease, compromised immune system. Reduced male fertility. Early onset menopause. Atherosclerosis. Occurs naturally in Coal, Crude Oil, and gasoline. Found in tobacco products. Released by forest fires, volcanos CANCER (Scrotal, Laryngal, Kidney, Skin, Lung, Prostate, Pancreatic, Esophagel, Bladder, Lung, Breast, Bone, Colo-rectal, Oral), Immune System disorders.

**PCBs**  (6) Known carcinogen. Possible death. Pancreatic cancer. Testicular cancer. Breast Cancer. non-Hodgkins Lymphoma. Liver cancer. Dermal & neurotixicity. Endocrine disprupter. Thyroid disorders ­Hypothyroidism, Porphyria ­ toxic, Developmental Delay, Decreased I.Q../Mental retardation, Cirrhosis, Chloracne, Behavioral problems, ADD/ADHD, hyperactivity. Fatty liver, Hepatitis., Immune system disorders, Porphyria, Thyroid hormone alterations. Low birth weight. Bronchitis. AD/HD. Cirrhosis. Hypothyroidism. Mental retardation. Reduced Fertility ­ Female (infertility and subfertility), Parkinson's disease/Movement disorders, Hypoactivity, Hypertension, Hyperkeratosis/Hyperpigmentation, Hearing loss, Endometriosis, Diabetes ­ Type I, Bone cancer/Ewing's sarcoma, Altered time to sexual maturation (accelerated or delayed puberty), Altered sex ratio Used in transformers, capacitors, voltage regulators, switches, hydraulic systems, flourescent bulb ballasts, adhesives, tapes, oil-based paint, plastics, floor finishes. CANCER (Pancreatic, Testicular, Thyroid, Breast, Liver). Non-Hodgkins Lymphoma. Endocrine disrupter. Chloracne. Reproductive TOXIN. Chloracne, Liver damage, Respiratory issues, Fatty Liver, Immune System disorders.

**PCE** Suspected of causing cancer. Cirrhosis, Acute hepatocellular injury (Hepatitis) Steatosis (fatty liver) Used as a solvent in dry cleaning and in the production of florinated compounds. Also in adhesives, aerosol degreasers, brake cleaers,aerosol lubricants, sealants, stainless steel polish. Used as a processing aid in pesticides, fertilizers and other Agricultural manufacturing. "CANCER. EPA determined that 59 of the 61 conditions of use of PCE present an

unreasonable risk of injury to health."

**PFAS** SVHC - Substances of Very High Concern. (29) Probable Carcinogen. Possible damage to unborn child. Toxic if swallowed. Single exposure organ damage. Testicular Cancer, Kidney cancer, Prostate cancer. Liver, heart and thyroid damage possible. Severe fetal developmental problems. Immune & digestive system problems. Heart disease. Low birth weight, slows development of fetus. Cholesterol problems. Pre-eclampsia. Exposure may cause kidney and liver damage. Repeated exposure - organ damage. Asthma. Serious eye & skin damage including burns. Acute oral & inhalation toxicity. Harmful if swallowed. Severe eye burns. Respiratory system and skin irritant. Hundreds of industrial & commercial uses. CANCER (Testicular, Kidney, Prostate). Severe fetal development problems. Heart disease.

**PHTHALATES**  Probable Carcinogen. Reproductive toxin. Physical defects in growing embryo. Reproductive toxin. Severe eye irritation. Significant inflammation of the skin. Possible carcinogen and mutagen. Increase in liver tumors. Possible infertility. Chlorracné, This condition is a serious skin condition characterized by acne-like lesions. Stomach irritation, diarrhea. Used for synthetic chemicals & plastics. Poly Vinyl Chloride - PVC. Used to increase flexibility. Used in cosmetics, toys, medical tubing, blood storage bags, lubricants, carpeting, clothing. CANCER (Liver, Lung) Heart, Pulmonary issues, Kidney Damage. Reproductive TOXIN.

**PHENOLS**  Fatal if swallowed, Inhaled or skin contact. Acute Toxicity if swallowed, inhaled or with skin contact. Reproductive toxin. Ingestion may cause Muscle tremors, damage to the heart, kidneys, Liver & Lungs, difficulty walking & Death. May cause serious eye, skin damage. Asthma. 2/3s is used in plastic manufacturing (bakelite). Used in cosmetics; sunscreens, skin lightening creams, hair color. Used in Pharmaceuticals FATAL if swallowed, Inhaled, or skin contact. Reproductive TOXIN.

**PROPANE**  Known Carcinogen. Testicular Cancer. Stomach Cancer. Kidney Cancer. Prostate Cancer. Lung Cancer, Nasal. Cancer. Toxic if swallowed. Causes liver & kidney damage. Toxic if swallowed. Acute toxicity if ingested or skin contact. Possible cell mutations. Hormonal changes. Possible reproductive toxicity. Repeated exposure - organ toxixity. Used as a fuel, CANCER (Testicular, Stomach, Kidney, Prostate, Lung, Nasal. TOXIC if swallowed

**PYRENE**  Carcinogenic, Tumorigenic. Lungs damage. Toxic for reproduction. Increased risk of skin, respiratory, bladder, stomach, & kidney cancers. Harmful if swallowed, inhaled, or skin contact. Irritating to skin. Very toxic to aquatic organisms. Used to make dyes. Made from coal tar & coal. CANCER. Toxic to kidneys, liver, REPRODUCTIVE SYSTEM

**RADIOACTIVE** Known carcinogen. IARC Fatal if swallowed or inhaled. Toxic if ingested or inhaled. Repeated exposure organ toxicity.Target organs: kidney, LIVER, BRAIN, lungs, CNS & immune system. Danger of cumulative effects. DNA damage. Fuel rods for nuclear reactors, nuclear weapons and warhwads. Some are used in making pigments, cosmetics, aloys, electronics, and laboratory use. Some for cancer treatments. Adds strenght to magnesium. Used to make heat resistent ceramics, aircraft engines and some light bulbs and camera lens. CANCER. FATAL if swallowed or inhaled. Liver, kidneys, bone,& thyroid issues. Ocular Melanocytic Tumors.

**TCE** http://yosemite.epa.gov/sab/sabproduct.nsf/0/773DC7E8C5C1332D852574F200699A89/$File/IRIS\_TOX\_REVIEW\_TCE\_ERD.PDF Possible Liver, Kidney Cancer, Non-Hodgkin Lymphoma, Cardiac defects. Acute hepatocellular injury (Hepatitis). Testicular cancer, Prostate cancer, Pancreatic cancer, Multiple myeloma, Lung cancer, Cervical cancer, Brain cancer. Nervous system damage. TOXIC TO REPRODUCTION. KNOWN HUMAN CARCINOGEN. KNOWN HUMAN MUTAGENIC. Scleroderma, Psychiatric disturbances, Hepatocellular cancer , Fetotoxicity (Miscarriage/spontaneous abortion; stillbirth), Decreased Coordination/ Dysequilibrium, Cirrhosis, Childhood Leukemias, Cardiac congenital malformations, Autoimmune antibodies, positive ANA, Arrhythmias Trigeminal neuropathy, Systemic Lupus Erythematosus, Raynaud's phenomenon, Peripheral neuropathy, Pancreatitis, Oral clefts (cleft lip and palate), Neural tube defects/CNS malformations, Nephrotic syndrome, Low birth weight/Small for Gestational Age, Immune suppression, Hodgkin's Disease (lymphoma), Genito­urinary malformations (includes cryptorchidism, hypospadias), Cognitive impairment (includes impaired learning, impaired memory, and decreased attention span), Choanal atresia, Adult Onset Leukemias, ADD/ADHD, hyperactivity, Acute tubular necrosis TCE is also used in some household products, such as cleaning wipes, aerosol cleaning products, tool cleaners, paint removers, spray adhesives, and carpet cleaners and spot removers.Solvent. CANCER (Liver, Kidney, Testicular, Prostate, Pancreatic, Lung, Cervical, Brain), non-Hodgkins Lymphoma. Multiple Myeloma. TOXIC to reproductive system.

**THALLIUM**  (3) Suspected carcinogen - OSHA Peripheral neuropathy Difficulty breathing, chest pain. Psychiatric disturbances, Menstrual disorders. Conjunctivitis, skin lesions, jaundice, diarrhea. Used in the glass and pharmaceutical industries. Used in infared devices, high-temperature superconductors, radioisitopes, mercury lamps. CANCER. Thallium poisoning foments adverse effects on the nervous system and may cause vomiting, diarrhea, temporary hair loss, and impediments to the lungs, heart, liver, and kidneys. In some instances, thallium poisoning leads to death. Memory Loss (may be severe),

**TOLUENE**  Toxic if ingested, inhaled or skin contact. Probable Carcinogen. Possibly Fatal if Swallowed, Inhaled or skin contact. Acute oral, dermal, inhalation toxicity. Repeated exposure organ toxocity. Reproductive Toxicity. Erectile dysfunction. Serious irritant to eyes, skin, respiratory system. May cause anemia, fatty liver, coronary artery disease. Industrial & commercial solvent, used in glues, correction fluid, nail polish remover, used in urethane production pharmaceuticals, dyes, kills certain worms in Ag use. CANCER. FATAL if swallowed, inhaled or skin contact.

**TRIHALOMETHANES**  Used for solvents, refrigerants. We mainly come into contact with them through our drinking water. They are produces from the break-down of the chlorine used as a disinfectant.

VOCs Can be dangerous toxins. Some inhalation may lead to death. Probably carcinogenic. Damage to kidneys, liver, and central nervous system. Asthma attacks, allergic reactions. Severe eye, nose and throat irritation. Memory loss, dizziness, headaches, visual impairment, loss of coordination. Man made chemicals. COMMON GROUND WATER CONTAMINENT. PESTICIDE. Used in the manufacture of paints, pharmaceuticals and refrigerants. Industrial solvent. Byproduct of chlorination of drinking water. Used in paints, paint strippers, wood preservatives, air fresheners. Used in copiers, printers, graphics materials (glues, adhesives, permanent markers). CANCER (Stomach). TOXIC. FATAL if swallowed.

**XYLENE**  Probable carcinogen. Possible Stomach cancer, Peripheral neuropathy. May be fatal if swallowed or inhaled. Scleroderma, Menstrual disorders, Arrhythmias. Single exposure organ toxicity. Headaches, Delayed growth, Acute hepatocellular injury (Hepatitis) Serious eye, skin, respiratory system irritant. A VOC, non-water soluable. Derived from crude oil. Used to process & stain tissues. PESTICIDE. DISINFECTANT. A major component of sosa bottles, detergent bottles, household fabrics. CANCER (Stomach). FATAL if swallowed or inhaled.