Category	Sub-Category	Pollutant	About / Use	Sources	Potential Effects
Inorganics	Metals	Barium	A naturally occurring metal found in some limestones, sandstones, and soils, especially in the eastern U.S.	Natural weathering of rocks, mining operations, drilling muds, fossil fuel combustion, and industrial production.	Can cause increased blood pressure. High levels may affect the heart, stomach, and nervous system.
		Beryllium	A naturally occurring metal used in electrical equipment, nuclear power, and aerospace industries.	Mining operations, processing plants, and improper waste disposal.	Can cause intestinal lesions. Long-term exposure may damage lungs and bones. Possible carcinogen.
		Cadmium	A metal found in rocks, coal, and petroleum. Used in metal plating, batteries, solar cells, and pigments.	Industrial discharge, mining waste, galvanized pipes, batteries, paints, plastic stabilizers, and landfill leachate.	Can cause high blood pressure, liver and kidney damage, and anemia. Toxic to aquatic life.
		Chromium	A metal used in surface coatings, cooling towers, dyes, wood preservatives, leather tanning, and alloys.	Mining runoff, fossil fuel combustion, cement plants, mineral leaching, and waste incineration.	Chromium III is nutritionally essential. Chromium VI is toxic and can cause liver, kidney, and skin damage.
		Copper	A metal used in electrical wiring, plumbing, and some pesticides.	Metal plating, industrial and domestic waste, mining, and mineral leaching.	High doses can cause stomach distress, liver and kidney damage. Causes unpleasant taste and staining.
		Lead	A metal historically used in paints, plumbing, roofing, and batteries.	Old pipes and plumbing, mining, industrial processes, and legacy contamination from leaded gasoline and paint.	Delays physical and mental development in children. Causes learning difficulties, kidney problems, and high blood pressure in adults. Probable carcinogen.
		Mercury	Occurs as inorganic salts and organic compounds (like methylmercury).	Industrial waste, mining, coal combustion, and electrical equipment (batteries, lamps, switches).	Causes kidney and nervous system damage. Methylmercury is especially harmful to developing fetuses and children.
		Nickel	A naturally occurring metal used in electroplating, stainless steel, alloys, and coinage.	Industrial waste, mining, and natural deposits.	Long-term exposure to high levels may damage the heart and liver.
		Thallium	A metal used in electronics, pharmaceuticals, glass, and alloys.	Ore-processing sites, electronics manufacturing, and glass and pharmaceutical factories.	Can cause hair loss, blood changes, and damage to kidneys, intestines, and liver.
	Metalloids	Antimony	A metalloid used in flame retardants, batteries, ceramics, glass, and alloys.	Natural weathering, industrial production, and manufacturing of flame retardants, ceramics, and batteries.	Long-term high-level exposure may alter blood glucose and cholesterol levels.
		Selenium	A naturally occurring metalloid that is essential in small amounts. Used in electronics and glass manufacturing.	Natural deposits, petroleum refineries, and mines.	Can cause hair/fingernail loss, numbness in extremities, and circulatory problems. Essential in small amounts but toxic at high doses.
		Silver	A metal used in photography, electronics, jewelry, and medical applications.	Mining, product fabrication, and disposal of silver-containing products.	Chronic exposure can cause argyria—a permanent blue-gray discoloration of skin and eyes.
	Radionuclides	Radium	A highly radioactive metal. Radium-226 has a half-life of about 1,600 years and decays into radon gas.	Primarily from natural deposits in rock and soil.	Increases the risk of cancer, particularly bone cancer, from exposure to alpha radiation.
		Radon	A radioactive gas produced by the decay of radium.	Natural deposits of radium in rock and soil.	A leading cause of lung cancer, especially in enclosed spaces with poor ventilation.
		Strontium	A naturally occurring element similar to calcium. Used in fireworks and flares. Radioactive strontium-90 is a nuclear byproduct.	Dissolution of minerals in limestone, natural brines, and industrial processes.	Can affect bone growth. Radioactive strontium-90 can cause bone cancer and leukemia.
		Uranium	A weakly radioactive metal used to produce nuclear energy.	Natural deposits and uranium mining/milling waste.	Can cause kidney damage and increases cancer risk from radiation exposure.
	Other	Arsenic	A toxic element used to strengthen alloys and formerly used in pesticides.	Natural processes, industrial activities, pesticides, and smelting of metal ores.	Can cause skin damage and circulatory problems. Known human carcinogen.
		Chloride(s)	Highly soluble salts found naturally in seawater. Small amounts can contaminate freshwater.	Saltwater intrusion, road salts, water softeners, fertilizers, and industrial waste.	Causes salty taste. Corrodes pipes, which can release lead and copper into drinking water.
		Cyanide	Used in electroplating, steel processing, plastics, synthetic fabrics, and fertilizer production.	Discharge from steel, metal, plastic, and fertilizer factories.	Can cause nerve and thyroid damage. Very high levels can cause rapid breathing, tremors, and death.
		Fluoride	Occurs naturally and is added to some municipal water supplies. Used in various industries.	Natural deposits, industrial waste, and intentional addition to drinking water.	Low levels help prevent tooth decay. High levels (above 4 mg/L) can cause bone disease and tooth discoloration in children.
		Nitrate	An essential plant nutrient found naturally in soils, water, and the atmosphere.	Fertilizers, feedlots, food processing waste, septic tanks, and sewage.	Can cause "blue baby syndrome" in infants under 6 months, reducing blood's oxygen-carrying ability. Excess nitrate causes algae overgrowth in water bodies.

Volatile Organic Compounds (VOCs)	Halogenated	Carbon Tetrachloride	A solvent formerly used as a grain fumigant, refrigerant, and dry cleaning agent.	Landfill disposal, industrial releases, and grain storage facilities.	Can cause liver and kidney damage. Probable human carcinogen.
		Chloroform	A chemical formerly used as a solvent, now mainly used to make refrigerants.	Pulp and paper mills, wastewater treatment, large processing facilities, and septic systems.	Can affect the nervous system, liver, and kidneys. Probable human carcinogen.
		Perchloroethylene (PCE)	A solvent used for dry cleaning and metal degreasing.	Dry cleaners, textile operations, and metal degreasing facilities.	Can cause dizziness, headaches, and coordination problems. Long-term exposure may damage liver and kidneys. Likely carcinogen.
		Trichloroethylene (TCE)	An industrial solvent used for metal degreasing and refrigerant manufacturing.	Industrial degreasing, automotive and metal machining industries, chemical waste sites, and leaky storage tanks.	Can cause dizziness and confusion. Long-term exposure may damage liver, kidneys, and nervous system. Known human carcinogen.
		Fluorotrichloromethane (Freon 11)	A refrigerant banned in 1996 due to ozone depletion.	Illegal drug labs, landfills, and industrial solvent spills.	High concentrations can cause tremors and heart problems. Liquid contact causes frostbite.
	Non-halogenated	Acetone	A common solvent used in cleaners, nail polish remover, and paint thinner.	Industrial wastewater and landfills.	High levels can irritate eyes, nose, and throat. May cause headaches and dizziness. Low toxicity at typical environmental levels.
		Methanol	A naturally occurring substance used as a fuel additive, paint stripper, and cleaner.	Tank truck or rail car releases, underground storage tanks.	Can cause headaches and dizziness. Ingestion can cause blindness, nervous system damage, and death.
		Methyl Tert-Butyl Ether (MTBE)	A fuel additive and solvent with an offensive taste and odor.	Leaking storage tanks, fuel spills, pipeline leaks, and landfills.	Can cause headaches, nausea, and dizziness. Detectable taste and odor at very low concentrations.
Semivolatile Organic Compounds (SVOCs)	Halogenated	Pentachlorophenol (PCP)	A wood preservative. Formerly used as a herbicide until banned in 1987.	Leaching from treated wood, industrial spills, hazardous waste sites.	Can damage liver, kidneys, and nervous system. Likely human carcinogen.
		Polychlorinated Biphenyls (PCBs)	Man-made chemicals once used in electrical equipment and hydraulic fluids. Banned in 1979.	Improper disposal of old electrical equipment, hazardous waste sites, and incinerator emissions.	Can cause skin conditions and affect immune, reproductive, and nervous systems. Probable human carcinogen.
	Non-halogenated	Polycyclic Aromatic Hydrocarbons (PAHs)	A group of over 100 compounds found naturally and in man-made products like dyes, plastics, and pesticides.	Construction waste, petroleum releases, and coal-tar based sealcoats.	Some PAHs are probable carcinogens. May affect skin, immune system, and reproductive system.
		Pesticides	Chemicals used to kill or control pests.	Agriculture and forestry operations.	Effects vary by pesticide. May affect nervous system, liver, kidneys, and reproductive system. Some are known carcinogens.
Petroleum Byproducts		Creosote	A wood preservative made from coal tar, used commercially on railroad ties and utility poles.	Runoff from railroad ties and utility poles.	Skin contact can cause irritation and sun sensitivity. May damage kidneys and liver. Probable carcinogen.
		Coal Tar	A thick, brown or black liquid byproduct of coal processing.	Underground storage tanks and coal tar facilities.	Causes skin irritation and sun sensitivity. Contains cancer-causing PAHs. Increases skin and lung cancer risk.
		Crude Oil	Unrefined petroleum extracted from the ground.	Underground storage tanks, pipeline leaks, industrial spills, and oil spills.	Can cause skin and eye irritation. Contains benzene and other chemicals that may cause cancer.
		Diesel	A fuel made from petroleum, used in diesel engines.	Underground storage tanks, pipeline leaks, and fuel spills.	Can cause skin irritation and respiratory problems. Exhaust contains chemicals that may increase cancer risk.
		Gasoline	A refined petroleum fuel used in internal combustion engines.	Underground storage tanks, pipeline leaks, and fuel spills.	Vapors can cause dizziness and headaches. Contains benzene, a known carcinogen.
		Benzene, Toluene, Ethylbenzene, and Xylene (BTEX)	A group of chemicals naturally found in petroleum products. Highly flammable with strong odors.	Leaking underground storage tanks, fuel spills, landfills, and pipeline leaks.	Benzene is a known carcinogen affecting blood-forming organs. Toluene, ethylbenzene, and xylene affect the nervous system.
Explosives		2,4,6-Trinitrotoluene (TNT)	An explosive used for military and industrial purposes. U.S. production ended in the mid-1980s.	Active and former military installations and ammunition plants.	Can cause anemia, liver damage, and skin irritation. Possible carcinogen.
		Hexahydro- 1, 3, 5 - triazine (RDX)	A powerful synthetic explosive used in military applications.	Active and former military installations and ammunition plants.	Large amounts can cause seizures. May affect nervous system, liver, and kidneys. Possible carcinogen.
Pathogen		E. Coli	A type of bacteria found in the intestines of humans and animals. Some strains cause illness.	Human and animal waste, and naturally in soil.	Can cause severe stomach cramps, bloody diarrhea, and vomiting. Some strains can cause kidney failure, especially in children and elderly.