



POLLUTANT: (CO₂)
Carbon Dioxide

Alias: Fossil Phil

DESCRIPTION: CO₂ is a colorless and odorless gas at room temperature. It is the fourth most abundant gas in the Earth's atmosphere. Humans and animals exhale CO₂ and plants "breathe" it in as they make food with the process of photosynthesis. The Carbon Cycle kept CO₂ emissions in balance on Earth until it was upset by the Industrial Age.

CRIME: Carbon dioxide is emitted into the air when fossil fuels are burned to release energy in power plants, homes, factories and vehicles. As CO₂, a greenhouse gas, has built up in the Earth's atmosphere, it has contributed to global climate change.

CAUSE: Carbon dioxide is emitted into the air when fossil fuels are burned to release energy in power plants, homes, factories and vehicles. Carbon dioxide in its solid form is dry ice. It is also used in fire extinguishers.

NYS Department of Environmental Conservation



POLLUTANT: (H₂S)
Hydrogen Sulfide

Alias: P.U. Stench

DESCRIPTION: (Compound) Hydrogen sulfide is a highly toxic, flammable, colorless gas with a characteristic odor of rotten eggs. People can smell it at low levels.

CRIME: Just a few breaths of high levels of hydrogen sulfide gas can cause death. At lower levels, long-term exposure can cause eye irritation, headache, fatigue, and breathing difficulties for asthmatics.

CAUSE: Hydrogen sulfide gas is produced naturally by the bacteria in our gastrointestinal tract and by volcanoes and hot springs. It is released into the ambient air by wastewater treatment plants, gas and oil drilling operations, landfills, and farms with manure storage or livestock confinement facilities.

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POLLUTANT:
PM2.5 (PM Fine)

Alias: Petite la Wheeze

DESCRIPTION: PM2.5, also known as PM Fine, is a generic name for particulate matter less than 2.5 microns in diameter. PM2.5 is made up of more toxic compounds than PM10, such as heavy metals and cancer-causing organic compounds.

CRIME: Since PM2.5 particles are smaller than PM10, they travel deeper into the lung, causing even more damage to the respiratory system. They can also damage the heart and cause cancer.

CAUSE: PM2.5 comes from burning fuel in powerplants, factories, cars and trucks, as well as dust blowing from roadways, fields and construction sites.

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POLLUTANT:
Radon (Rn)

Alias: Radiation Ron

DESCRIPTION: (Element) Radon is a naturally occurring gas that comes from various rocks, soils, and underground water sources.

CRIME: Radon gives off radiation that can cause lung cancer. Radon is second only to smoking as a cause of lung cancer.

CAUSE: Radon forms from the breakdown of the natural elements uranium and radium. Radon comes from the ground and can enter a building from the soil. You can test your home for radon with an in-home radon test kit. When necessary, radon can be removed from your home by installing ventilation systems.

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POLLUTANT: (C₂H₃Cl)
Vinyl Chloride

Alias: Plastic Pete

DESCRIPTION: (Compound) Vinyl chloride is a colorless gas with a mild, sweet odor. It is a manufactured substance.

CRIME: Vinyl chloride in the air can cause liver and nerve damage, immune reactions, reproductive problems and cancer of the liver, brain, lungs and blood. Vinyl chloride is soluble in water and can contaminate groundwater.

CAUSE: Vinyl chloride is released into the air by factories that make polyvinyl chloride (PVC), a material used in plastic and vinyl products. Tobacco smoke also contains vinyl chloride.

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POLLUTANT: (H₂CO)
Formaldehyde

Alias: Burnice D'Smog

DESCRIPTION: (Compound) At room temperature, formaldehyde is a flammable gas that dissolves easily in water. It has a distinct, pungent smell.

CRIME: Low levels of formaldehyde irritate the eyes, nose, throat and skin, and cause headaches and fatigue. People with asthma are more sensitive to formaldehyde. High levels may cause nose and throat cancer.

CAUSE: Formaldehyde is used in many materials in the home and workplace, such as plywood and carpeting. Because of this, it is a common indoor air pollutant. Formaldehyde is also produced by combustion from forest fires, automobile exhaust, and cigarettes. It also interacts with sunlight and oxygen to help form smog.

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POLLUTANT: (C₂Cl₄)
Perchloroethylene

Alias: Washy Wanda

DESCRIPTION: (Compound) Also known as tetrachloroethylene, "perc" is a manufactured chemical that is a clear, non-flammable liquid at room temperature. It easily evaporates into the air and has a sharp, sweet odor.

CRIME: Perc enters your body when you breathe its vapors in the air. High concentrations of perc can cause irritation of the eyes, nose, throat or skin and effects on the nervous system similar to alcohol intoxication. It is also suspected to cause liver and kidney damage, cancer, and harm to the unborn and young children, as well as contaminate ground water. Very high levels can cause unconsciousness or even death.

CAUSE: Perc is used for dry cleaning fabrics and metal degreasing. Small amounts of perc are on clothes you bring home from the dry cleaner. Living close to a dry cleaner may also expose you to perc in the air or ground water.

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POLLUTANT: (Cl)
Chlorine

Alias: Choking Charlie

DESCRIPTION: (Element) Chlorine is a greenish-yellow gas with a suffocating, extremely irritating odor.

CRIME: Exposure to chlorine causes burning of the eyes, nose, throat, and lungs.

CAUSE: Chlorine is a widely used chemical in the manufacture of a large number of compounds, like plastics, chlorinated hydrocarbons, and synthetic rubber. It is also used for water and wastewater disinfection and bleaching. Swimming pool and spa chemicals may contain chlorine and must be used properly. Mixing chlorine bleach with common household chemicals containing ammonia can cause chlorine and other dangerous gases to be released.

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