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# 1-Nitropyrene

National Cancer Institute

## Source

National Cancer Institute. *1-Nitropyrene*. NCI Thesaurus. Code C29781.

A synthetic, light sensitive, yellow crystalline solid that is practically insoluble in water and soluble in diethyl ether, acetone, ethanol, benzene and toluene. It is not used for any commercial applications and is used only for research purposes, principally as a marker for exposure to nitro-polycyclic aromatic hydrocarbons from diesel exhaust. When heated to decomposition, 1-nitropyrene emits toxic fumes of nitrogen oxides. This compound is found in particulate emissions from combustion products, of which diesel exhaust is the principle source. The primary route of potential human exposure to 1-nitropyrene is inhalation. This compound is one of the most abundant mononitroarenes detected in ambient air. Occupational exposure to 1-nitropyrene occurs primarily in workers exposed to diesel engine exhaust in the transport industry. It is reasonably anticipated to be a human carcinogen. (NCI05)