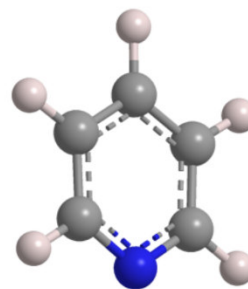
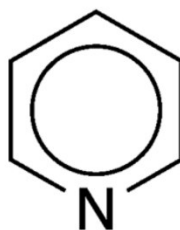


# Pyridine










Pyridine is a colorless liquid with a foul odor and several hazardous properties. In the late 1840s, physician/chemist Thomas Anderson produced several liquids by heating animal bones to high temperatures. One of these turned out to be pyridine, which he named after the Greek word *pyr* (fire).

About 20 years later, chemists elucidated the structure of pyridine..

Pyridine's structure is isoelectronic with that of benzene, but its properties are quite different. Pyridine is completely miscible with water, whereas benzene is only slightly soluble. Like all hydrocarbons, benzene is neutral (in the acid–base sense), but because of its nitrogen atom, pyridine is a weak base.

In industry and in the lab, pyridine is used as a reaction solvent, particularly when its basicity is useful, and as a starting material for synthesizing some herbicides, fungicides, and antiseptics. Current worldwide pyridine production is  $\approx 20,000$  t/year, valued at about US\$600 million.

## Pyridine hazard information

Hazard class*	Hazard statement	
Flammable liquids, category 2	H225—Highly flammable liquid and vapor	
Acute toxicity, oral, category 4	H302—Harmful if swallowed	
Acute toxicity, dermal, category 4	H312—Harmful in contact with skin	
Skin corrosion/irritation, category 2	H315—Causes skin irritation	
Serious eye damage/eye irritation, category 2A	H319—Causes serious eye irritation	
Acute toxicity, inhalation, category 4	H332—Harmful if inhaled	
Carcinogenicity, category 2	H351— Suspected of causing cancer	
Hazardous to the aquatic environment, acute hazard, category 3	H402—Harmful to aquatic life	

From: <https://www.acs.org/content/acs/en/molecule-of-the-week/archive/p/pyridine.html>