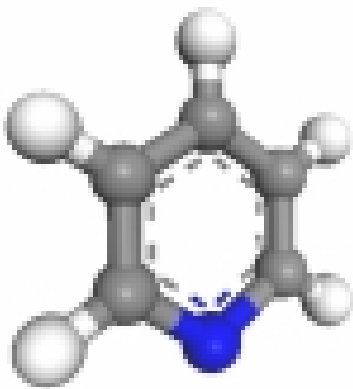


# ALOHA™ CVD/ALD Materials



## UHP Pyridine

Syn.: Pyridine, Azabenzene, Azine

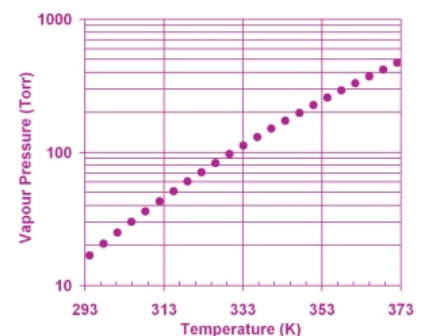
$C_5H_5N$

CAS n° 110-86-1

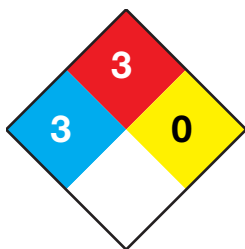
- Pyridine is a common and versatile solvent, and is miscible with both water and hydrocarbons. It is a basic, aprotic but strongly polar compound with a non-delocalized lone pair of electron. This structure results in a very strong moisture affinity caused by the H-bonding. In normal condition, pyridine is a liquid with a very unpleasant putrid odour.
- Chemical grade pyridine is used in many industries, such as pharmaceutical, biocides, dyes, adhesives, etc. Pyridine is also used as a denaturant for antifreeze mixtures, for ethyl alcohol, for fungicides, and as a dyeing aid for textiles
- ALOHA's UHP Pyridine is produced by ultra-purification of chemical grade Pyridine, and is qualified and supplied to major DRAM and Flash memory makers.
- Like for most of the ALOHA advanced products, each UHP solvent canister is supplied with a BALAZS CofA ensuring strict compliance with the specifications. Please consult [www.balazs.com](http://www.balazs.com) for more information on Air Liquide's BALAZS analytical services.

### Physical Chemical Properties

Physical Property	
Molecular Weight	79.10 g.mol <sup>-1</sup>
Physical State	Liquid
Colour	Colourless
Melting Point	< -41.6°C
Boiling point	115.2°C
Viscosity	0.94 cP @ 20°C
Heat of Vaporization	35.09 kJ.mol <sup>-1</sup> @ 344K
Specific Gravity	0.982 g.cm <sup>-3</sup>



## Hazard Rating



### HMIS

Health: 3  
Flammability: 3  
Reactivity: 0

Please consult the ALOHA MSDS of UHP Pyridine for additional data.

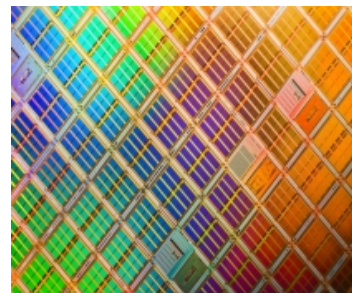
### EU Hazard Classification:

F: [Highly Flammable]  
Xn [Harmful]

- Risk Phrases: R 11; R 20/21/22
- Safety Phrases: S (2); S 26; S 28

## Applications

- In the semiconductor industry, pyridine is primarily used in extra low temperature SiO<sub>2</sub> ALD processes in conjunction with H<sub>2</sub>O and chlorosilanes (see for instance Y. Du et al., *J. Phys. Chem. C*, **111** (1), 219 -226, 2007).
- For such applications, ALOHA™ has developed a proprietary drying and filtration technology to ensure the lowest contamination level on the market today.



## Packaging & Dispensing System

- UHP Pyridine can be packaged in a variety of canisters depending on the equipment.
- ALOHA canisters can be equipped with continuous or point-type liquid level sensor for optimum product usage. Both the level sensor and the canister can be customized to meet your application requirements.
- Pyridine can also be dispensed to several points of use from bulk canisters using Air Liquide's CANDI or CALEN remote delivery system.



## Transport Information

- Proper shipping name: Pyridine
- UN Number: 1282
- Packaging : PG II / Class 3 (Flammable Liquid)
- IATA : Allowed in passenger aircrafts (Instruction 305, 5L max, 1L max per pkg), and in cargo aircrafts (instruction 307, 60 L max).

