

**Pyridine**  
**CAS No 110-86-1**

**MATERIAL SAFETY DATA SHEET**  
**SDS/MSDS**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Pyridine

CAS-No. : 110-86-1

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

### 1.3 Details of the supplier of the safety data sheet

Company : Pallav Chemicals & Solvents Pvt. Ltd  
253, Shiv Shakti Industrial Estate, Opp Mittal Estate  
Andheri Kurla Road, Andheri (E), Mumbai - 400050  
INDIA

Telephone : +91 22 4928 4000

Email : [sales@pallavchemicals.com](mailto:sales@pallavchemicals.com)

### 1.4 Emergency telephone number

Emergency Phone # : +91 22 4928 4000 (9:00am - 6:00 pm) [Office hours]

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word : Danger

Hazard statement(s)  
H225

Highly flammable liquid and vapour.

H302 + H312 + H332  
H315

Harmful if swallowed, in contact with skin or if inhaled  
Causes skin irritation.

H319	Causes serious eye irritation.
Precautionary statement(s) P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	none

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Formula	: C <sub>5</sub> H <sub>5</sub> N
Molecular weight	: 79,10 g/mol
CAS-No.	: 110-86-1
EC-No.	: 203-809-9
Index-No.	: 613-002-00-7
Registration number	: 01-2119493105-40-XXXX

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
<b>Pyridine</b>		
CAS-No.	110-86-1	<= 100 %
EC-No.	203-809-9	
Index-No.	613-002-00-7	
	Flam. Liq. 2; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; H225, H302, H332, H312, H315, H319	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **5.4 Further information**

Use water spray to cool unopened containers.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **6.3 Methods and materials for containment and cleaning up**

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Large spills should be collected mechanically (remove by pumping) for disposal. Ventilate the area.

### **6.4 Reference to other sections**

For disposal see section 13.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas.

Storage class (TRGS 510): Flammable liquids

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Components with workplace control parameters**

### **8.2 Exposure controls**

#### **Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## Personal protective equipment

### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |   |   |
|---|---|
| a) Appearance                                   | Form: liquid<br>Colour: colourless                                  |
| b) Odour  | unpleasant  |
| c) Odour Threshold                              | No data available   |
| d) pH   | 8,5 at 15,82 g/l at 25 °C   |
| e) Melting point/freezing point                 | Melting point/range: -42 °C - lit.                                  |
| f) Initial boiling point and boiling range      | 115 °C - lit.   |
| g) Flash point                                  | 17,0 °C - closed cup  |
| h) Evaporation rate                             | No data available   |
| i) Flammability (solid, gas)                    | No data available   |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 12,4 %(V)<br>Lower explosion limit: 1,8 %(V) |
| k) Vapour pressure                              | 13,3 hPa at 13,2 °C<br>26,7 hPa at 25,0 °C                          |
| l) Vapour density                               | No data available   |
| m) Relative density                             | 0,978 g/cm <sup>3</sup> at 25 °C                                    |
| n) Water solubility                             | soluble   |
| o) Partition coefficient: n-octanol/water       | log Pow: 0,65   |
| p) Auto-ignition temperature                    | 482,0 °C  |
| q) Decomposition temperature                    | No data available   |

- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

## 9.2 Other safety information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents, Strong acids

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 891,0 mg/kg

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Ptosis.

Behavioral:Somnolence (general depressed activity). Behavioral:Coma.

LC50 Inhalation - Rat - 4 h - 5400 ppm

LC50 Inhalation - Rat - 1 h - 28.500 mg/m<sup>3</sup>

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation.

Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:Dyspnea.

LD50 Dermal - Rabbit - 1.121 mg/kg

Remarks: Behavioral:Ataxia. Gastrointestinal:Changes in structure or function of salivary glands.

Liver:Other changes.

#### Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h

(Draize Test)

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Pyridine)

#### Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

No data available

### Specific target organ toxicity - repeated exposure

No data available

### Aspiration hazard

No data available

### Additional Information

RTECS: UR8400000

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Dizziness, tachycardia, nervousness, insomnia, Skin disorders, loss of appetite  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Bone marrow -

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 93,80 mg/l - 96 h LC50 - Cyprinus carpio (Carp) - 26,00 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 940,00 mg/l - 48 h EC50 - Daphnia magna (Water flea) - 1.140,00 mg/l - 48 h EC50 - Daphnia pulex (Water flea) - 520,00 mg/l - 48 h
Toxicity to algae	EC50 - SELENASTRUM - 100,00 - 180,00 mg/l - 72 h

### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d  
Result: 97 % - Readily biodegradable

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

Harmful to aquatic life.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 1282

IMDG: 1282

IATA: 1282

**14.2 UN proper shipping name**

ADR/RID: PYRIDINE  
 IMDG: PYRIDINE  
 IATA: Pyridine

**14.3 Transport hazard class(es)**

ADR/RID: 3                                      IMDG: 3                                      IATA: 3

**14.4 Packaging group**

ADR/RID: II                                      IMDG: II                                      IATA: II

**14.5 Environmental hazards**

ADR/RID: no                                      IMDG Marine pollutant: no                                      IATA: no

**14.6 Special precautions for user**

No data available

**SECTION 15: Regulatory information**

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

H225                                      Highly flammable liquid and vapour.  
 H302                                      Harmful if swallowed.  
 H302 + H312 +                                      Harmful if swallowed, in contact with skin or if inhaled  
 H332  
 H312                                      Harmful in contact with skin.  
 H315                                      Causes skin irritation.  
 H319                                      Causes serious eye irritation.  
 H332                                      Harmful if inhaled.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Pallav Chemicals & Solvents Pvt. Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.pallavchemicals.com](http://www.pallavchemicals.com) for additional terms and conditions of sale.