Camlab Limited – Material Safety Data Sheet 1110599

1. Identification

Product Code **1110599**

Product Name **PYRIDINE pure**

Molecular Formula **C_5H_5N =79.10**

CAS Number **110-86-1**

Supplier: **CAMLAB LIMITED**

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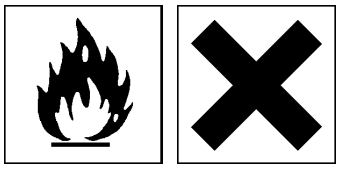
2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Pyridine	110-86-1	203-809-9	> 99.0%	F Xn : R11,R20/21/22	WEL

3. Hazards Identification



Highly flammable. Harmful by inhalation, in contact with skin and if swallowed.

4. First Aid Measures

Eyes: Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.

Skin: Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION.

Inhalation: Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

Ingestion: If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards: Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. Vapour-air mixtures are explosive. Vapours may flow along surfaces to distant ignition sources and flash back.

Extinguishing Media: Alcohol resistant foam, dry powder, carbon dioxide or vaporising liquid. Use water spray to keep fire exposed containers cool.

Unsuitable Media: Do not use water jet.

6. Accidental Release Measures

Personal Protection	Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. Beware : vapour is heavier than air and will tend to accumulate at low spots.
Enviromental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

8.1 Workplace Exposure Limits

Workplace Exposure Limits	Long Term (8hr TWA):	5.000	ppm	16.00	mg m-3
	Short Term (15min Period):	10.00	ppm	33.00	mg m-3

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.
Hands	Use solvent resistant gloves.
Eyes	Use chemical splash proof glasses or goggles.
Skin	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

9. Physical & Chemical Properties

Appearance	Clear colourless to pale yellow liquid.
Odour	Penetrating, nauseating odour and burning taste.
pH	9 @ 20 °C
Boiling point	115.0 °C
Melting point	42.0- °C
Flash point	17.0 °C(Closed cup)
Upper Flammable Limit	12.4 %
Lower Flammable Limit	1.8 %
Auto Ignition	482.0 °C
Explosive properties	Moderate/severe in confined spaces.
Oxidising Properties	No.
Vapour Presure	20 mmHg @ 20 C
Relative Density	0.9780
Water Solubility	Completely miscible in water.

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
Materials to Avoid	Strong oxidising agents. Mineral acids. Chlorosulphonic acid and sulphur trioxide.

10. Stability & Reactivity (continued)

Hazardous Decomposition Products	Will evolve very toxic fumes of cyanide if involved in a fire or heated to decomposition.

11. Toxicological Information

Eyes	Both the vapour and liquid will, be irritating to the eyes but unlikely to cause serious injury.
Skin	Can be absorbed through the skin and may cause irritation and dermatitis. Skin sensitisation and photosensitisation may occur.
LD50 Skin	Rabbit 1121 mg/Kg
Ingest	Ingestion of large amounts will cause damage to the central nervous system, heart, liver and kidneys.
LD50 Ingest	Oral Rat 891 mg/Kg
Inhalation	Exposure to vapour concentrations above the occupational exposure limits will produce irritation of the eyes and respiratory tract. Symptoms include drowsiness, mental confusion and unconsciousness. effects the central nervous system resulting in gastrointestinal tract causing, headache, nausea, giddiness, vomiting, insomnia and anorexia.
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	At low concentrations possesses no hazard to reproduction or teratogenic effects.
Other Information	The vapour can be detected from its smell at 1ppm. This does not, however, act as a reliable warning due to olfactory fatigue.

12. Ecological

Moderately toxic to mammals, fish and bacteria.

13. Disposal Considerations

Disposal Methods	Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion.
Contaminated Packaging	Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion.

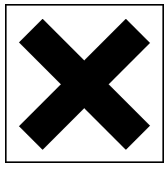
14. Transport Information

Proper Shipping Name	Pyridine
UN Number	1282
UN Classification	3 Flammable liquid
Subsidiary Risk	None
Flash Point	17.0 °C(Closed cup)
Packing Group	II
Transport Category	2
Marine pollutant	No
ADR Hazard ID	33

15. Regulatory Information

Labelling Classification	Highly Flammable, Harmful.
Label Symbols	F

Xn



15. Regulatory Information (continued)

Risk & safety Phrases	Highly flammable. Harmful by inhalation, in contact with skin and if swallowed. Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water.
EEC Number	203-809-9

16. Other Information

Document Information	This document has been prepared in accordance with directive 88/379/EEC. The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. Revision Date: 19/11/03. Data reviewed and PDF file generated: 17/03/10.