SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Pyridine
CAS number	110-86-1
Synonyms	Azine, Azabenzine

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

Identified uses	Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2)
Acute oral toxicity (Category 4)
Acute dermal toxicity (Category 4)
Acute inhalation toxicity - vapors (Category 4)
Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)
Target organs: Respiratory system, Central nervous system (CNS)

2.2 GHS Label elements, including precautionary statements

Pictogram 

Signal Word Danger

Hazard statements

Prevention	Wash face, hands and any exposed skin thoroughly after handling
	Do not eat, drink or smoke when using this product
	Wear protective gloves/protective clothing/eye protection/face protection
	Avoid breathing dust/fume/gas/mist/vapors/spray
	Use only outdoors or in a well-ventilated area
	Keep away from heat/sparks/open flames/hot surfaces. - No smoking
	Keep container tightly closed
	Ground/bond container and receiving equipment
	Use explosion-proof electrical/ventilating/lighting/equipment
	Use only non-sparking tools
	Take precautionary measures against static discharge
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
	Call a POISON CENTER or doctor/physician if you feel unwell
Skin	Call a POISON CENTER or doctor/physician if you feel unwell
	Wash contaminated clothing before reuse
	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/sho
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
	Rinse mouth
Fire	In case of fire: Use CO2, dry chemical, or foam for extinction
Storage	Store in a well-ventilated place. Keep cool
Disposal	Dispose of contents/container to an approved waste disposal plant

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

WARNING! This product contains a chemical known in the State of California to cause cancer.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Pyridine	Azine; Azabenzine	110-86-1	>95%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
In case of eye contact	Rinse off immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
If swallowed	If swallowed, DO NOT induce vomiting. Obtain medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulties. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	CO2, dry chemical, dry sand, alcohol-resistant foam. Cool closed containers exposed to fire with water spray.
Unsuitable extinguishing media	Water spray may be ineffective.

5.2 Specific hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition may lead to release of irritating gases and vapors.

5.4 Further information

Hazardous combustion products: Carbon monoxide (CO), Carbon dioxide (CO2), Hydrogen cyanide (Hydrocyanic acid), Nitrogen oxides (NOx)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Use only under a chemical hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Aviod ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharges.

Hygiene measures

No information available

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area.

Incompatibilities

No information available

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value	
Pyridine	TWA	5 ppm	15 mg/m3

US. ACGIH Threshold Limit Values

Component	Type	Value
Pyridine	TWA	1 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Pyridine	IDLH	1000 ppm
	TWA	5 ppm 15 mg/m3

8.2 Exposure controls

Appropriate engineering controls
Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal protective equipment

Eye/face protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection
Wear appropriate protective clothing and gloves to prevent skin exposure.

Body Protection
Wear appropriate gloves to prevent skin exposure.

Respiratory protection
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure
No information available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	Fishy
Odor Threshold	No information available
pH	8.5 15 g/l aq. solution
Melting Point/Range	-42°C / -43.6°F
Boiling Point/Range	115 - 116°C / 239 - 240.8°F
Evaporation Rate	No information available
Flammability (solid)	No information available

Flammability or explosive limit	
Upper:	12.4 vol %
Lower:	1.8 vol %
Vapor Pressure	20 mbar @ 20 °C
Vapor Density	2.73 (Air = 1.0)
Density	0.978
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	482°C / 899.6°F
Decomposition Temp	No information available
Viscosity	0.95 mPa.s at 20 °C
Molecular Formula	C5 H5 N
Molecular Weight	79.1
VOC Content(%)	No information available
Flash point	17°C / 62.6°F

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
None known, based on information available

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
None likely under normal processing conditions.

10.4 Conditions to avoid
Incompatible products. Excess heat.

10.5 Incompatible materials
Strong acids, alkaline, oxidizing agents.

10.6 Hazardous decomposition products
Carbon monoxide (CO), Carbon dioxide (CO2), Hydrogen cyanide (hydrocyanic acid), Nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Pyridine	891 mg/kg (Rat)	1121 mg/kg (Rabbit)	28500 mg/m3 (Rat) - 1h

Skin corrosion/irritation
Irritating to eyes and skin

Serious eye damage/eye irritation
Irritating to eyes

Respiratory or skin sensitization
See section 2 for full list of hazards and precautions.

Germ cell mutagenicity
No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Pyridine	110-86-1	Not listed	Not listed	A3	Not listed	Not listed

Specific target organ toxicity - single exposure
Respiratory system, Central nervous system

Specific target organ toxicity - repeated exposure
None known.

Reproductive toxicity
No information available

Chronic effects
No information available

11.2 Additional Information
See actual entry in RTECS for complete information.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Pyridine	EC50	Freshwater Algae	520 mg/L - 24h
	LC50	Freshwater fish	26 mg/L - 96h 63.4 - 73.6 mg/L - 96h 4.6 mg/L - 96h
	EC50	Water Flea	520 mg/L - 24h

12.2 Persistence and degradability

No information available

12.3 Bio accumulative potential
No information available

12.4 Mobility in soil
No information available

12.5 Results of PBT and vPvB assessment
No information available

12.6 Endocrine disrupting properties
No information available

12.7 Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN number:	UN1282
Proper shipping name:	PYRIDINE
Hazard Class	3
Packaging Group	II

IMDG

UN number:	UN1282
Proper shipping name:	PYRIDINE
Hazard Class	3
Packaging Group	II

IATA

UN number	UN1282
Proper shipping name	PYRIDINE
Hazard Class	3
Packaging Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Pyridine: 1000 lb

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

SARA 313 (TRI reporting)

Threshold values: 1.0

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not regulated

Food and Drug Administration (FDA)

Not regulated

US state regulations

US. Massachusetts RTK - Substance List

Listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

US. Pennsylvania Worker and Community Right-to-Know Law

Listed

California Proposition 65

Listed

SECTION 16: Other information

Revision date: 06/19/2024
Revision number: 1

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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