



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Phenolphthalein Indicator, 1% (w/v) in Pyridine

Product Number 5627

Other Identifying Product Numbers 5627-100, 5627-16, 5627-32

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company Ricca Chemical Company

Address 412 West Fork Drive

Arlington, TX 76012 USA

Telephone 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA) 800-424-9300

CHEMTREC (International) 1+ 703-527-3887

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SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Acute Toxicity - Oral	Category 4	H302	P264,P270,P301+P312,P330,P501
Acute Toxicity - Dermal	Category 4	H312	P280,P302+P352,P312,P321,P362+P364,P501
Acute Toxicity - Inhalation (Vapors)	Category 4	H332	P261,P271,P304+P340,P312
Flammable Liquids	Category 2	H225	P210,P233,P240,P241,P242,P243,P280,P303+P361+P353,P370+P378,P403+P235,P501
Skin Corrosion / Irritation	Category 2	H315	P264,P280,P302+P352,P321,P332+P313,P362+P364
Serious Eye Damage / Eye Irritation	Category 2	H319	P264,P280,P305+P351+P338,P337+P313
Germ Cell Mutagenicity	Category 2	H341	P201,P202,P280,P308+P313,P405,P501
Carcinogenicity	Category 1B	H350	P201,P202,P280,P308+P313,P405,P501
Reproductive Toxicity	Category 2	H361	P201,P202,P280,P308+P313,P405,P501
Specific Target Organ Toxicity - Repeated Exposure	Category 2	H373	P260,P314,P501

2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.



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Hazard Number	Hazard Statement
H225	Highly flammable liquid and vapor
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled
H315	Causes skin irritation
H319	Causes serious eye irritation
H341	Suspected of causing genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to kidneys, liver through prolonged or repeated exposure

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

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Prevention

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharge.
P260	Do not breathe fumes or mist.
P264	Wash hands, arms, and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	If exposed or concerned: Get medical advice or attention.
P312	Call a poison center or doctor if you feel unwell.
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical advice or attention.
P337+P313	If eye irritation persists: Get medical advice or attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish.

Storage

Precautionary Number	Precautionary Statement
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal

Precautionary Number	Precautionary Statement
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P501

Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

1 percent of this mixture consists of ingredient(s) of unknown acute toxicity (all routes).

SECTION 3: Composition / Information on Ingredients

3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
pyridine	Pyridine; azabenzene; azine	110-86-1	98.98
3,3-bis(4-hydroxyphenyl)-2-benzofuran-1-one	Phenolphthalein	77-09-8	1.02

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Dilute immediately with water or milk. Induce vomiting. Call a physician.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. May cause irritation, redness and pain. Absorption through skin may occur with toxic effects similar to inhalation.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Suspected of damaging fertility or the unborn child Danger! Harmful or fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes severe irritation of the respiratory system, skin and eyes. Affects central nervous system, liver and kidneys. If ingested, give large quantity of water and induce vomiting. Call a physician. Wash areas of contact with soap and water. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: May cause irritation, redness and pain. Absorption through skin may occur with toxic effects similar to inhalation.

4.3. Immediate Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute immediately with water or milk. Induce vomiting. Call a physician.

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SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish. Alcohol foam, dry chemical, carbon dioxide Water may be ineffective due to the low flash point.

5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Highly flammable liquid and vapor Flammable liquid. Vapors are heavier than air and may travel to a source of ignition and flash back. Products of combustion include carbon monoxide, carbon dioxide, and oxides of nitrogen.

5.3. Special Protective Equipment and Precautions for Firefighters

Wear special protective clothing and positive pressure self-contained breathing apparatus. Butyl rubber barrier recommended.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground and bond container and receiving equipment. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharge. Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Eliminate all ignition sources. Stop or control the leak, if this can be done without undue risk. Use water spray to cool and disperse vapors, protect personnel, and dilute spills to form nonflammable mixtures. Control runoff and isolate discharged material for proper disposal.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store in a well-ventilated place. Keep cool. Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store in secure, flammable storage area away from all sources of ignition. Empty containers may be hazardous since they retain product residues.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

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U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

Chemical Name	CAS Number	Exposure Limit
Pyridine	110-86-1	5 ppm TWA; 15 mg/m ³ TWA

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

No limits found.

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Chemical Name	CAS Number	Exposure Limit
Pyridine	110-86-1	1 ppm TWA

8.2. Engineering Controls

Use only outdoors or in a well-ventilated area. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	liquid
Color:	Colorless to light yellow
Odor:	penetrating, disagreeable, fishy
Odor Threshold:	Data not available.
Melting/Freezing Point:	-42°C
Boiling Point/Range:	115 - 116°C
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available. - 12.4%
Flash Point:	20 °C
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	8.5 (0.2 M in water)
Kinematic Viscosity:	Data not available.
Solubility:	soluble
Vapor Pressure:	20 mmHg at 25°C
Evaporation Rate:	Data not available.
Relative Density:	0.98
Relative Vapor Density:	2.73
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	0.65

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Strong oxidizers (such as Chlorine, Bromine, Fluorine), strong acids (such as Hydrochloric, Sulfuric, Nitric), heat, sparks, open flame.

10.4. Hazardous Decomposition Products

Will not occur.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 874 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Pyridine	110-86-1	Oral LD50 Rat 866 mg/kg (Source: JAPAN_GHS)

Acute Toxicity - Dermal Exposure:

Dermal acute toxicity estimate (ATE): 1111 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Pyridine	110-86-1	Dermal LD50 Rabbit 1000 - 2000 mg/kg (Source: CHEMVIEW)

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 13.0329 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Pyridine	110-86-1	Inhalation LC50 Rat 12.898 mg/L 4 h (vapor, Source: JAPAN_GHS)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Pyridine	110-86-1	Group 2B (Possibly Carcinogenic to Humans) - Monograph 119 [2019]; Monograph 77 [2000]
Phenolphthalein	77-09-8	Group 2B (Possibly Carcinogenic to Humans) - Monograph 76 [2000]

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
Pyridine	110-86-1	Male Rat - Some Evidence; Female Rat - Equivocal Evidence; Male Mice - Clear Evidence; Female Mice - Clear Evidence (TR-470)
Phenolphthalein	77-09-8	Reasonably Anticipated To Be A Human Carcinogen; Male Rat - Clear Evidence; Female Rat - Some Evidence; Male Mice - Clear Evidence; Female Mice - Clear Evidence (TR-465)

U.S. OSHA specifically regulated carcinogens

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Chemical Name	CAS Number	Classification
No data found.		

11.3 Additional Toxicology Information:

Harmful if swallowed, in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation. Suspected of causing genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to kidneys, liver through prolonged or repeated exposure.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Pyridine	110-86-1	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 63.4 - 73.6 mg/L [flow-through] (EPA); LC50 96 h Cyprinus carpio 26 mg/L [semi-static] (EPA); LC50 96 h Oncorhynchus mykiss 4.6 mg/L [static] (EPA)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

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SECTION 14: Transportation Information

14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Sizes: 1 L, 100 mL, 500 mL

UN Number: UN1282

Proper Shipping Name: Pyridine Solution

Hazard Class: 3

Packing Group: II

Hazard Label(s):



14.2 Transportation by Air - International Air Transport Association (IATA)

Sizes: 1 L, 100 mL, 500 mL

UN Number: UN1282

Proper Shipping Name: Pyridine Solution

Hazard Class: 3

Packing Group: II

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 1 L, 100 mL, 500 mL

UN Number: UN1282

Proper Shipping Name: PYRIDINE SOLUTION

Hazard Class: 3

Packing Group: II

Hazard Label(s):



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SECTION 15: Regulatory Information

15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
No data found.		

15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Chemical Name	CAS Number	RQ
No data found.		

15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chemical Name	CAS Number	Regulatory Information
Pyridine	110-86-1	1000 lb final RQ; 454 kg final RQ

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List	Regulatory Information
Pyridine	110-86-1	Emission Reporting	1.0 % de minimis concentration
Phenolphthalein	77-09-8	Emission Reporting	0.1 % de minimis concentration

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Pyridine	110-86-1	Present

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Pyridine	110-86-1	Environmental hazard

15.07. New Jersey Worker and Community Right-to-Know Components

Chemical Name	CAS Number	Regulatory Information
Pyridine	110-86-1	sn 1624
Phenolphthalein	77-09-8	sn 4110

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15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
Pyridine	110-86-1	carcinogen, 5/17/2002
Phenolphthalein	77-09-8	carcinogen, 5/15/1998

15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Chemical Name	CAS Number	List	Status
Pyridine	110-86-1	DSL	Present
Phenolphthalein	77-09-8	DSL	Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Chemical Name	CAS Number	Status
Pyridine	110-86-1	Present (ACTIVE)
Phenolphthalein	77-09-8	Present (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Chemical Name	CAS Number	List	Number
Pyridine	110-86-1	EINECS	203-809-9
Phenolphthalein	77-09-8	EINECS	201-004-7

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Pyridine	110-86-1	Present [02882]
Phenolphthalein	77-09-8	Present [12959]

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Pyridine	110-86-1	Annex 1	Present [KE-29929]
Phenolphthalein	77-09-8	Annex 1	Present [KE-03234]



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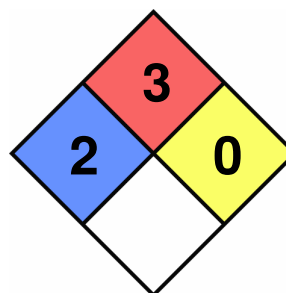
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Pyridine	110-86-1	(5)-710
Phenolphthalein	77-09-8	(9)-1152

SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 2
Flammability: 3
Reactivity: 0
Special Hazard:



16.2 Document Revision

Last Revision Date:
2026-05-22

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.