An ISO 9001:2000 Certified Company

THE POWER OF THREE[3]

PHARMCO-AAPER

AND COMMERCIAL ALCOHOLS

Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

MATERIAL SAFETY DATA SHEETS

Manufacturer: PHARMCO-AAPER
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Pyridine

1. CHEMICAL PRODUCT IDENTIFICATION

Product Name: Pyridine
Synonym(s): Azabenzene; Azine
Molecular Formula: C_5H_5N
Molecular Weight: 79.10

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
PYRIDINE	110-86-1	100.0

3. HAZARDS IDENTIFICATION

WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT.

NFPA Hazard Ratings: Health - 3, Flammability - 3, Reactivity - 0

NOTE: NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Potential Health Effects

Eye: Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin: May cause mild skin irritation. Symptoms may include redness and burning of skin.

Swallowing : Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation: Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

Symptoms of Exposure: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), cyanosis (causes blue coloring of the skin and nails from lack of oxygen), and death.

Target Organ Effects: No data

Developmental Information: No data

Cancer Information: No data

Other Health Effects: No data

Primary Route(s) of Entry: Inhalation, Skin contact.

4. FIRST AID MEASURES

Eyes: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin: Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.

Swallowing: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation: If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen. A cyanide antidote kit must be available at all times (see Section 16 for information). Immediate first aid, including administration of oxygen and amyl nitrite, may be given by a trained layman. Medical treatment involves intravenous injection and must be administered by qualified medical personnel. Speed of treatment is very important. First aid given promptly is often the only treatment needed.

Note to Physicians: Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions), Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

5. FIRE FIGHTING MEASURES

Flash Point: 68.0 F (20.0 C)
Explosive Limit: (for product) Lower 1.8 Upper .0 %
Autoignition Temperature: No data

Hazardous Products of Combustion May form: Hydrogen Cyanide.

Fire and Explosion Hazards: Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media: alcohol foam, carbon dioxide, dry chemical.

Fire Fighting Instructions: Wear a self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

6. ACCIDENTAL RELEASE MEASURES

Small Spill: Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood. Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks.

Large Spill: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

7. HANDLING AND STORAGE

Handling : Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five-gallon pails and larger metal containers, including tank cars and tank trucks, should be grounded and/or bonded when material is transferred.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin Protection: Wear resistant gloves such as: neoprene, To prevent repeated or prolonged skin contact, wear impervious clothing and boots..

Respiratory Protections: If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines
PYRIDINE (110-86-1)
OSHA VPEL 5.000 ppm - TWA
ACGIH TLV 5.000 ppm - TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: (for product) 240.0 F (115.5 C) @ 760 mmHg
Vapor Pressure: (for product) 16.000 mmHg @ 68.00 F
Specific Vapor Density: 2.700 @ AIR=1
Specific Gravity: .990 @ 68.00 F
Liquid Density: 8.240 lbs/gal @ 68.00 F; .990 kg/l @ 20.00 C
Percent Volatiles: 99.0 %
Evaporation Rate: 8.20
Appearance: No data
State: LIQUID
Physical Form: NEAT
Color: CLEAR, COLORLESS, MALODOROUS
Odor: No data
pH: Not applicable

10. STABILITY AND REACTIVITY

Hazardous Polymerization: Product will not undergo hazardous polymerization.

Hazardous Decomposition May form: Hydrogen Cyanide.

Chemical Stability: Stable.

Incompatibility: Avoid contact with: excessive heat, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Oral rat LD50: 891 mg/kg; inhalation rat LC50: 28500 mg/m3/1-hour; skin rabbit LD50: 1121 mg/kg; Irritation data: skin rabbit, open Draize, 10 mg/24H mild; eye rabbit, standard Draize, 2 mg severe. Investigated as a tumorigen and mutagen.

----------\Cancer Lists\----------

	---NTP Carcinogen---		
Ingredient	Known	Anticipated	IARC Category
Pyridine (110-86-1)	No	No	None

12. ECOLOGICAL INFORMATION

Environmental Fate: When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to have a half-life between 1 and 10 days. When released into water, this material may biodegrade to a moderate extent. When released into water, this material may evaporate to a moderate extent. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be removed from the

atmosphere to a moderate extent by wet deposition.

Environmental Toxicity: The LC50/96-hour values for fish are between 10 and 100 mg/l. The LC50/96-hour values for fish are over 100 mg/l.

13. DISPOSAL CONSIDERATION

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

Domestic (Land, D.O.T.)
Proper Shipping Name: PYRIDINE
Hazard Class: 3
UN/NA: UN1282
Packing Group: II

International (Water, I.M.O.)
Proper Shipping Name: PYRIDINE
Hazard Class: 3.2
UN/NA: UN1282
Packing Group: II

15. REGULATORY INFORMATION

US Federal Regulations
TSCA (Toxic Substances Control Act) Status
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

SARA 302 Components - 40 CFR 355 Appendix A: None

Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed( ) Fire(X) Reactive( ) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	%
PYRIDINE	110-86-1	100.00

International Regulations
Inventory Status: Not determined

State and Local Regulations
California Proposition 65: None

New Jersey RTK Label Information
PYRIDINE 110-86-1

Pennsylvania RTK Label Information

PYRIDINE 110-86-1

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are:

Chemical Name	CAS Number	RQ
Pyridine	110-86-1	1,000lb

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Pyridine

16. OTHER INFORMATION

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.