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TECHNO PHARMCHEM
An ISO 9001 : 2008 Certified Company
Registered Off. : 101-A, Deep Enclave, Pocket "D", Ashok Vihar, Phase-III, Delhi-110 052 (India)
Corporate Off. : 152, Vardhman City Centre, Near Shakti Nagar Underbridge, Delhi-110052 (India)
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PYRIDINE

1. Product Identification
Synonyms: Azabenzene
CAS No.: 110-86-1
Molecular Weight: 79.10
Chemical Formula: C_5H_5N
Product Codes: 39059 , 39060

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Pyridine	110-86-1	99 - 100%

3. Hazards Identification
Potential Health Effects

Inhalation: Inhalation causes severe irritation to the respiratory tract. Symptoms of overexposure include headache, dizziness, nausea, shortness of breath, coughing, insomnia, diarrhea,gastrointestinal disturbances, and back pain with urinary frequency. Liver and kidney damage may occur.
Ingestion: Toxic effects parallel those of inhalation. May be fatal if swallowed.
Skin Contact: Causes severe irritation, possibly burns, to the skin. Symptoms include redness and severe pain. Absorption through the skin may occur, resulting in toxic effects similar to inhalation. Eye Contact: Vapors cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage.
Chronic Exposure: Liver and kidney damage has been reported.
Aggravation of Pre-existing Conditions: Persons with pre-existing skin, eye or central nervous system disorders, or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of this substance.

4. First Aid Measures
Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion: If swallowed, give large quantities of water to drink and get medical attention immediately. Never give anything by mouth to an unconscious person.
Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.
Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures
Fire: Flash point: 20C (68F) CC
Autoignition temperature: 482C (900F)
Flammable limits in air % by volume:
lel: 1.8; uel: 12.4
Explosion: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.
Fire Extinguishing Media: Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool. Water may be ineffective.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.

6. Accidental Release Measures
Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust.

7. Handling and Storage
Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do Not attempt to clean empty containers since residue is difficult to remove.

8. Exposure Controls/Personal Protection
Airborne Exposure Limits:
For Pyridine:
- OSHA Permissible Exposure Limit (PEL) - 5 ppm (TWA).
- ACGIH Threshold Limit Value (TLV) - 1 ppm (TWA),
- NIOSH Recommended Exposure Limit (REL) - 5 ppm (Ceiling).
Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Respirators : If the exposure limit is exceeded and engineering controls are not feasible, a full facepiece respirator with organic vapor cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.
Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties
Appearance: Colorless to yellow liquid.
Odor: Penetrating, sickening.
Solubility: Miscible in water.
Specific Gravity: 0.98 @ 25C/4C
pH: 8.5
% Volatiles by volume @ 21C (70F): 100
Boiling Point: 115.3C (239F)
Melting Point: -42C (-44F)
Vapor Density (Air=1): 2.72
Vapor Pressure (mm Hg): 18 @ 20C (68F)
Evaporation Rate (BuAc=1): No information found.

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10. Stability and Reactivity
Stability: Stable under ordinary conditions of use and storage. Heat will contribute to instability.
Hazardous Decomposition Products: May form cyanide fumes and oxides of carbon and nitrogen if heated to decomposition.
Hazardous Polymerization: Will not occur.
Incompatibilities: Heat, flame, maleic anhydride, perchromates, strong acids, strong oxidizers. Will attack some forms of plastics, rubber, and coatings.
Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

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.

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. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.
Environmental Toxicity: This material may be toxic to aquatic life.

13. Disposal Considerations
Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information
Land

Proper Shipping Name: PYRIDINE
Hazard Class: 3
UN/NA: UN1282
Packing Group: II
Information reported for product/size: 441LB

International (Water, I.M.O.)

Proper Shipping Name: PYRIDINE
Hazard Class: 3
UN/NA: UN1282
Packing Group: II
Information reported for product/size: 441LB

15. Regulatory Information
SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No
Reactivity: No (Pure / Liquid)

16. Other Information
Product Use:
Laboratory Reagent.