

# Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
  	<p>Toxic compound, do not ingest or inhale. Avoid all contact with this material.</p> <p>Irritating to skin, eyes, and the respiratory system.</p> <p><b>CARCINOGEN. MINIMIZE EXPOSURE.</b></p> <p><b>POSSIBLE MUTAGEN. MINIMIZE EXPOSURE.</b></p> <p>This compound is a possible skin sensitizer.</p>	   

## Section I. Chemical Product and Company Identification

Chemical Name	<b>3-Phenylazo-2,6-diaminopyridine Monohydrochloride</b>		
Catalog Number	B0022	Supplier	TCI America 9211 N. Harborgate St. Portland OR 1-800-423-8616
Synonym	2,6-Pyridinediamine, 3-(2-phenyldiazenyl)-, hydrochloride (1:1) (CA INDEX NAME); Phenazopyridine Hydrochloride		
Chemical Formula	C <sub>11</sub> H <sub>11</sub> N <sub>5</sub> •HCl		
CAS Number	136-40-3	In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

## Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
3-Phenylazo-2,6-diaminopyridine Monohydrochloride	136-40-3	Min. 98.0 (HPLC,T)	This chemical is classified as a carcinogen. There is no acceptable exposure limit for a carcinogen. This compound is classified as a possible mutagen. There is no acceptable exposure limit for a mutagen.	Rat LD <sub>50</sub> (oral) 472 mg/kg Mouse LD <sub>50</sub> (intravenous) 180 mg/kg

## Section III. Hazards Identification

Acute Health Effects	<p>Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <p>Skin contact may result in sensitization. Always cover all exposed skin with an impermeable layer and use proper eye protection. A OSHA/MSHA approved dust and vapor respirator is required when working with this material.</p> <p>Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.</p>
Chronic Health Effects	<p><b>CARCINOGENIC EFFECTS</b> : Carcinogenic by RTECS criteria.</p> <p><b>MUTAGENIC EFFECTS</b> : Not available.</p> <p><b>TERATOGENIC EFFECTS</b> : Tumorigenic Effects.</p> <p>Rat TDLo Oral 225 gm/kg/78 weeks continuous</p> <p>TOXIC Effects:</p> <p>Tumorigenic - Carcinogenic by RTECS criteria</p> <p>Mouse TD Oral 40 gm/kg/78 weeks continuous</p> <p>TOXIC Effects:</p> <p>Tumorigenic - Equivocal tumorigenic agent by RTECS criteria</p> <p>Liver - Tumors</p> <p>Mouse TDLo Oral 81 gm/kg/80 weeks continuous</p> <p>TOXIC Effects:</p> <p>Tumorigenic - Carcinogenic by RTECS criteria</p> <p>Liver - Tumors</p> <p><b>DEVELOPMENTAL TOXICITY</b>: Not available.</p> <p>Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.</p>

## Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

**Section V. Fire and Explosion Data**

Flammability	May be combustible at high temperature.	Auto-Ignition	Not available.
Flash Points	Not available.	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ), halogenated compounds WARNING: Highly toxic HCl gas is produced during combustion.		
Fire Hazards	Not available.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations.		

**Section VI. Accidental Release Measures**

Spill Cleanup Instructions	Toxic material. Irritating material. Carcinogenic material. Possibly mutagenic material. Possibly sensitizing material. Use a shovel to put the material into a convenient waste disposal container. Finish cleaning the spill by rinsing any contaminated surfaces with copious amounts of water. Consult federal, state, and/or local authorities for assistance on disposal.
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**Section VII. Handling and Storage**

Handling and Storage Information	TOXIC. IRRITANT. CARCINOGEN. POSSIBLE MUTAGEN. POSSIBLE SENSITIZER. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively.
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**Section VIII. Exposure Controls/Personal Protection**

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
	
Exposure Limits	This chemical is classified as a carcinogen. There is no acceptable exposure limit for a carcinogen. This compound is classified as a possible mutagen. There is no acceptable exposure limit for a mutagen.

**Section IX. Physical and Chemical Properties**

Physical state @ 20°C	Solid. (Violet powder.)	Solubility	Not available.
Specific Gravity	Not available.		
Molecular Weight	249.7	Partition Coefficient	Not available.
Boiling Point	Not available.	Vapor Pressure	Not applicable.
Melting Point	Not available.	Vapor Density	Not available.
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Not available.
Viscosity	Not available.	Taste	Not available.

**Section X. Stability and Reactivity Data**

Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light.
Incompatibilities	Reactive with strong oxidizing agents.

**Section XI. Toxicological Information**

RTECS Number	US7875000
Routes of Exposure	Eye Contact. Ingestion. Inhalation.
Toxicity Data	Rat LD <sub>50</sub> (oral) 472 mg/kg Mouse LD <sub>50</sub> (intravenous) 180 mg/kg

Chronic Toxic Effects	<p><b>CARCINOGENIC EFFECTS</b> : Carcinogenic by RTECS criteria.  <b>MUTAGENIC EFFECTS</b> : Not available.  <b>TERATOGENIC EFFECTS</b> : Tumorigenic Effects.  Rat TDLo Oral 225 gm/kg/78 weeks continuous  TOXIC Effects:  Tumorigenic - Carcinogenic by RTECS criteria  Mouse TD Oral 40 gm/kg/78 weeks continuous  TOXIC Effects:  Tumorigenic - Equivocal tumorigenic agent by RTECS criteria  Liver - Tumors  Mouse TDLo Oral 81 gm/kg/80 weeks continuous  TOXIC Effects:  Tumorigenic - Carcinogenic by RTECS criteria  Liver - Tumors  <b>DEVELOPMENTAL TOXICITY</b>: Not available.  Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.</p>
Acute Toxic Effects	<p>Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.  Skin contact may result in sensitization. Always cover all exposed skin with an impermeable layer and use proper eye protection. A OSHA/MSHA approved dust and vapor respirator is required when working with this material.  Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.</p>

## Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	<p>Phenazopyridine's production and use in the manufacture of 2,6-diamino-3-phenylazopyridine hydrochloride, a urinary analgesic in human and veterinary medicine, may result in its release to the environment through various waste streams. If released to air, an estimated vapor pressure of 8.65X10<sup>-7</sup> mm Hg at 25 deg C indicates phenazopyridine will exist in both the vapor and particulate phases in the ambient atmosphere. Vapor-phase phenazopyridine will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 2 hrs. Particulate-phase phenazopyridine will be removed from the atmosphere by wet and dry deposition. If released to soil, phenazopyridine is expected to have low mobility based upon an estimated Koc of 870. Volatilization from moist soil surfaces is not expected to be an important fate process based upon an estimated Henry's Law constant of 3.30X10<sup>-15</sup> atm-cu m/mole. Phenazopyridine will not volatilize from dry soil surfaces based upon its vapor pressure. If released into water, phenazopyridine is expected to adsorb to suspended solids and sediment in water based upon the estimated Koc. Volatilization from water surfaces is not expected to be an important fate process based upon this compound's estimated Henry's Law constant. However, volatilization from water surfaces is expected to be attenuated by adsorption to suspended solids and sediment in the water column. An estimated BCF of 10 suggests the potential for bioconcentration in aquatic organisms is low. Occupational exposure to phenazopyridine may occur through inhalation of dust and dermal contact with this compound at workplaces where phenazopyridine is produced or used. The general population may be exposed to phenazopyridine via ingestion as the hydrogen chloride form is used as a medicine.</p>

## Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.
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## Section XIV. Transport Information

DOT Classification	Not a DOT controlled material (United States).
PIN Number	Not applicable.
Proper Shipping Name	Not applicable.
Packing Group (PG)	Not applicable.
DOT Pictograms	

## Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	<p>This product is <b>NOT</b> on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:  (i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.  (ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on an MSDS sheet.</p>
WHMIS Classification (Canada)	<p>CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).  CLASS D-2B: Material causing other toxic effects (TOXIC).  On DSL</p>
EINECS Number (EEC)	205-243-8
EEC Risk Statements	<p>R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.  R36/37/38- Irritating to eyes, respiratory system and skin.  R45- May cause cancer.  R46- May cause heritable genetic damage.  R47- May cause birth defects.</p>
Japanese Regulatory Data	Not Available.

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Emergency phone number (800) 424-9300

**Section XVI. Other Information**

**Version 1.0**  
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**Notice to Reader**

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, household, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.

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