TCI AMERICA

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	**Toxic compound, do not ingest or inhale. Avoid all contact with this material.** **This material is very toxic to aquatic organisms and may cause long term adverse effects to the aquatic environment.** **This compound is a possible skin sensitizer.** **Irritating to skin, eyes, and the respiratory system.**	

Section I. Chemical Product and Company Identification

Chemical Name: **p-Anisidine**

Catalog Number	A0802
Synonym	Benzenamine, 4-Methoxy- (9 CI)
Chemical Formula	$CH_3OC_6H_4NH_2$
CAS Number	104-94-9

Supplier: TCI America
9211 N. Harborgate St.
Portland OR
1-800-423-8616

In case of Emergency Call: **Chemtrec®**
(800) 424-9300 (U.S.)
(703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
p-Anisidine	104-94-9	Min. 98.0 (GC)	Not available.	Rat LD_{50} (oral) 1320mg/kg Rat LD_{50} (dermal) 3200mg/kg Rabbit LD_{50} (oral) 2900mg/kg

Section III. Hazards Identification

Acute Health Effects

Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death.
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.
Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours.
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.
Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Chronic Health Effects

CARCINOGENIC EFFECTS : Not available.
MUTAGENIC EFFECTS : Not available.
TERATOGENIC EFFECTS : Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

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	118℃ (244.4℉).	Flammable Limits	Not available.

Combustion Products: These products are toxic carbon oxides (CO, CO_2), nitrogen oxides (NO, NO_2).

Fire Hazards: Not available.

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Emergency phone number (800) 424-9300

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 solid. Possible sensitizing material. Environmentally hazardous material. Irritating material. Use a shovel to put the material into a convenient waste disposal container. Prevent entry into sewers, basements or confined areas; dike if needed. Consult federal, state, and/or local authorities for assistance on disposal.

Section VII. Handling and Storage

Handling and Storage Information	TOXIC. POSSIBLE SENSITIZER. ENVIRONMENTAL HAZARD. IRRITANT. 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. Always store away from incompatible compounds such as oxidizing agents.

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	Not available.

Section IX. Physical and Chemical Properties

Physical state @ 20°C	Solid. (White crystalline powder.)	Solubility	Soluble in benzene. Very soluble in ether. Freely soluble in methanol and ethanol. In water, 21,000mg/L @ 20°C.
Specific Gravity	1.071 (water=1) @ 57°C		
Molecular Weight	123.15	Partition Coefficient	K_{ow}= 0.95
Boiling Point	243°C (469.4°F)	Vapor Pressure	3.0 X 10^{-2} mmHg @ 20°C
Melting Point	59°C (138.2°F)	Vapor Density	4.28 (Air = 1)
Refractive Index	1.5559 @ 60°C	Volatility	Not available.
Critical Temperature	Not available.	Odor	Amine like.
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	BZ5450000
Routes of Exposure	Eye Contact. Ingestion. Inhalation.
Toxicity Data	Rat LD_{50} (oral) 1320mg/kg Rat LD_{50} (dermal) 3200mg/kg Rabbit LD_{50} (oral) 2900mg/kg
Chronic Toxic Effects	**CARCINOGENIC EFFECTS** : Not available. **MUTAGENIC EFFECTS** : Not available. **TERATOGENIC EFFECTS** : Not available. **DEVELOPMENTAL TOXICITY**: Not available. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

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Acute Toxic Effects	Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. 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. Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours. 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. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity	This material is very toxic to aquatic organisms and may cause long term adverse effects to the aquatic environment.
Environmental Fate	p-Anisidine's production and use as an intermediate in the manufacturing of azo dyes may result in its release to the environment through various waste streams. If released to air, a vapor pressure of 3.0X10-2 mm Hg at 20 deg C indicates p-anisidine will exist solely as a vapor in the ambient atmosphere. Vapor-phase p-anisidine 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 6 hours. Aniline has been shown to undergo indirect photolysis in natural waters containing humic acids, therefore it is expected that p-anisidine may also undergo indirect photolysis in natural water. If released to soil, p-anisidine is expected to have high mobility based upon an estimated Koc of 78. However, p-anisidine is expected to bind irreversibly to humic materials, making it immobile in soils where humic materials are present. p-Anisidine has a pKa of 5.34, indicating it will partially exist in the protonated form under acidic conditions and cations generally adsorb to organic carbon and clay more strongly than their neutral counterparts. Volatilization from moist soil surfaces is not expected to be an important fate process based upon a Henry's Law constant of 6.60X10-8 atm-cu m/mole. p-Anisidine is not expected to volatilize from dry soil surfaces based upon its vapor pressure. p-Anisidine is expected to biodegrade rapidly under aerobic conditions except when microorganisms are killed by high concentrations of the compound. If released to water, p-anisidine may react with either photochemically generated oxidants found in natural sunlit water or it may bond strongly with any humic materials found in suspended solids and sediments. Volatilization from water surfaces is not expected to be an important fate process based upon this compound's Henry's Law constant. Occupational exposure to p-anisidine may occur through inhalation and dermal contact with this compound at workplaces where p-anisidine is produced or used. (HSDB)

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.

Section XIV. Transport Information

DOT Classification	CLASS 6.1: Toxic material.
PIN Number	UN2431
Proper Shipping Name	Anisidines, solid.
Packing Group (PG)	III
DOT Pictograms	

Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list. This product is subject to SARA Section 313 reporting requirements.
WHMIS Classification (Canada)	CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).
EINECS Number (EEC)	203-254-2
EEC Risk Statements	R23/24/25- Toxic by inhalation, in contact with skin and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. R42/43- May cause sensitization by inhalation and skin contact. R50- Very toxic to aquatic organisms.
Japanese Regulatory Data	Not available.

Section XVI. Other Information

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Notice to Reader

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