

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
  	<p>Flammable material; avoid heat and sources of ignition. Corrosive to eyes and skin on contact. Toxic compound, do not ingest or inhale. Avoid all contact with this material. Hygroscopic -- keep container tightly sealed. Store under nitrogen.</p>	

Section I. Chemical Product and Company Identification

Chemical Name	3-Picoline (beta-)		
Catalog Number	P0416	Supplier	TCl America 9211 N. Harborgate St. Portland OR 1-800-423-8616
Synonym	Beta Methylpyridine (3-)		
Chemical Formula	CH ₃ C ₅ H ₄ N		
CAS Number	108-99-6	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
3-Picoline (beta-)	108-99-6	Min. 98.0 (GC)	Not available.	Rat LD ₅₀ (oral) 400mg/kg Rat LD ₅₀ (intraperitoneal) 150mg/kg Mouse LD ₅₀ (intravenous) 298mg/kg

Section III. Hazards Identification

Acute Health Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	<p>CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available.</p> <p>Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.</p>

Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. DO NOT use an eye ointment. Flush eyes with running water for a minimum of 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention. Treat symptomatically and supportively.
Skin Contact	If the chemical gets spilled on a clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.
Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform artificial respiration. WARNING: It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.
Ingestion	DO NOT induce vomiting. Loosen tight clothing such as a collar, tie, belt, or waistband. If the victim is not breathing, administer artificial respiration. 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. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.

Section V. Fire and Explosion Data

Flammability	Flammable.	Auto-Ignition	539°C (1002.2°F)
Flash Points	36°C (96.8°F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO ₂), nitrogen oxides (NO _x).		
Fire Hazards	No specific information is available regarding the flammability of this compound in the presence of various materials.		
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. No additional information is available regarding the risks of explosion.		
Fire Fighting Media and Instructions	Flammable liquid. SMALL FIRE: Use DRY chemicals, CO ₂ , alcohol foam or water spray. LARGE FIRE: Use alcohol foam, water spray or fog.		

Section VI. Accidental Release Measures

Spill Cleanup Instructions	Flammable liquid. Corrosive liquid. Toxic material. Hygroscopic material. Store material under nitrogen. Keep away from heat and sources of ignition. Mechanical exhaust required. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT get water inside container. DO NOT touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.
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Section VII. Handling and Storage

Handling and Storage Information	FLAMMABLE. CORROSIVE. TOXIC. HYGROSCOPIC. STORE UNDER NITROGEN. Handle with caution and minimize exposure. Keep container dry. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Never add water to this product. 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, acids.
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Section VIII. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.
Personal Protection	Face shield. Lab coat. Vapor respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
	
Exposure Limits	Not available.

Section IX. Physical and Chemical Properties

Physical state @ 20°C	Colorless liquid.	Solubility	Miscible with water, alcohol and ether.
Specific Gravity	0.957		
Molecular Weight	93.13	Partition Coefficient	Not available.
Boiling Point	144°C (291.2°F)	Vapor Pressure	4.4 mm Hg @ 20°C
Melting Point	Not available.	Vapor Density	3.2
Refractive Index	1.5043 @ 24°C	Volatility	Not available.
Critical Temperature	Not available.	Odor	Sweetish, not unpleasant odor.
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 oxidizing agents, acids, acid chlorides, chloroformates.

Section XI. Toxicological Information

RTECS Number	TJ5000000
Routes of Exposure	Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data	Rat LD ₅₀ (oral) 400mg/kg Rat LD ₅₀ (intraperitoneal) 150mg/kg Mouse LD ₅₀ (intravenous) 298mg/kg
Chronic Toxic Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Acute Toxic Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	Methylpyridines are produced from the pyrolysis of coal or synthetically by reactions between aldehydes and ketones with ammonia. 3-Methylpyridine may be released to the environment via effluents from the manufacture and use of coal-derived liquid fuels and the disposal of coal liquefaction and gasification waste by products. 3-Methylpyridine's production and use as a solvent, a chemical intermediate, and as a laboratory agent may also result in its release to the environment from various waste streams. It has been identified in drinking water, ground water, surface water, in wastewater effluents, and in atmospheric samples. It has also been detected as a volatile component of beef and mutton and in cigarette smoke. If released to soil, 3-methylpyridine will have high mobility, although the cation form may be adsorbed to clay and other soil material. Volatilization of 3-methylpyridine may be important from moist and dry soil surfaces. With a pKa of 5.63, 3-methylpyridine will be partially ionized at environmental pHs. The pKa of 3-methylpyridine is 5.63 so in acidic soils it will be largely in an ionic form, suggesting that cationic adsorption is probable and adsorption to clayey soil possible. An aerobic soil grab sample study demonstrated rapid biodegradation of 3-methylpyridine. However, biodegradation may be quite slow under anaerobic conditions. If released to water, 3-methylpyridine would not adsorb to suspended solids and sediment due to its high water solubility and low Koc value. 3-Methylpyridine would volatilize from water surfaces with estimated half-lives for a model river and model lake of about 4.7 and 37 days, respectively. An estimated BCF value of 4.8 suggests that 3-methylpyridine will not bioconcentrate in aquatic organisms. An aerobic river die-away test also showed that 3-methylpyridine biodegraded rapidly after acclimation in highly polluted natural waters. Biodegradation is also expected to be fast in acclimated aerobic groundwater. If released to the atmosphere, 3-methylpyridine will exist in the vapor phase. Vapor-phase 3-methylpyridine is degraded in the atmosphere by reaction with photochemically produced hydroxyl radicals with an estimated half-life of about 14.6 days. The most probable human exposure would be occupational exposure, which may occur through dermal contact or inhalation at work places where coal-derived fuels are produced or used. The most common non-occupational exposure is likely to result from either passive or active inhalation of cigarette smoke. Limited monitoring data indicate that other non-occupational exposures can occur from the ingestion of certain foods and contaminated drinking water supplies.

Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local or 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	DOT CLASS 3: Flammable liquid.
PIN Number	UN2313
Proper Shipping Name	Picolines
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.
WHMIS Classification (Canada)	WHMIS CLASS B-2: Flammable liquid with a flash point lower than 35°C (100°F). WHMIS CLASS E: Corrosive liquid.
EINECS Number (EEC)	203-636-9
EEC Risk Statements	R10- Flammable. R18- In use, may form flammable/explosive vapor-air mixture. R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.
Japanese Regulatory Data	Not available.

Section XVI. Other Information

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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, households, 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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