

OTTO CHEMIE PVT LTD

An ISO 9001 : 2015 & GMP Certified Company
101, Aarkay Ruby Industrial Estate (1B), Opp Shree Narayan Industrial Estate,
Chinchpada, Vasai East, Waliv, Maharashtra 401208. Tel : + 91 98200 41841
Email : info@ottokemi.com Web : www.ottokemi.com

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name : 3-Picoline, 98%
Product Code: P 1858
CAS-No.: 108-99-6

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification

OTTO CHEMIE PVT LTD

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Chinchpada, Vasai East, Waliv, Maharashtra 401208.

Email info@ottokemi.com

1.4. Emergency telephone number

Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm)

SECTION 2.Hazard identification

2.1Classification of the substance or mixture

Flammable liquids, Category 3

Acute toxicity - Oral, Category 4

Acute toxicity - Dermal, Category 3

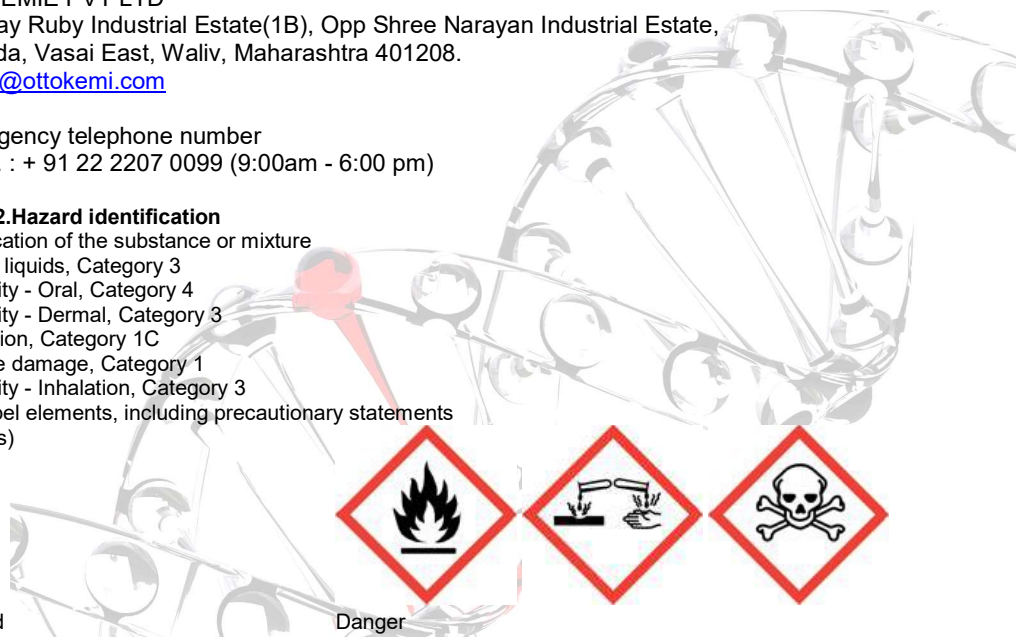
Skin corrosion, Category 1C

Serious eye damage, Category 1

Acute toxicity - Inhalation, Category 3

2.2GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Hazard statement(s)

Danger

H226 Flammable liquid and vapour

H302 Harmful if swallowed

H311+H331 Toxic in contact with skin or if inhaled

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

Precautionary statement(s)

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

Response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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	P370+P378 In case of fire: Use ... to extinguish.
	P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
	P330 Rinse mouth.
	P302+P352 IF ON SKIN: Wash with plenty of water/...
	P312 Call a POISON CENTER/doctor if you feel unwell.
	P321 Specific treatment (see ... on this label).
	P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
	P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P363 Wash contaminated clothing before reuse.
	P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P310 Immediately call a POISON CENTER/doctor
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	P311 Call a POISON CENTER/doctor
	P403+P235 Store in a well-ventilated place. Keep cool.
	P405 Store locked up.
	P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Disposal	P501 Dispose of contents/container to ...

2.3 Other hazards which do not result in classification
none

SECTION 3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
3-methylpyridine	3-methylpyridine	108-99-6	none	100%

SECTION 4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Fresh air, rest. Refer for medical attention.

In case of skin contact

Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.

In case of eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

If swallowed

Rinse mouth. Do NOT induce vomiting. Refer for medical attention.

4.2 Most important symptoms/effects, acute and delayed

HARMFUL if swallowed, inhaled or absorbed through skin. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Inhalation may be fatal as a result of spasm, inflammation of larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. (USCG, 1999)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

/SRP:/ Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. /Aromatic hydrocarbons and related compounds/

SECTION 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Special Hazards of Combustion Products: Vapors may travel considerable distance to a source of ignition and flashback. Forms explosive mixtures in air. Emits toxic fumes under fire conditions. (USCG, 1999)

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations. Personal protection: chemical protection suit including self-contained breathing apparatus.

6.3 Methods and materials for containment and cleaning up

Accidental Release Measures. Personal precautions, protective equipment and emergency procedures: Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Methods and materials for containment and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Fireproof. Separated from strong oxidants. Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic. Storage class (TRGS 510): Flammable liquids.

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

SECTION 9. Physical and chemical properties

Physical state	clear amber liquid.
Colour	Colorless liquid
Odour	Sweetish, not unpleasant odor
Melting point/ freezing point	-18\u00b0C(lit.)
Boiling point or initial boiling point and boiling range	144\u00b0C(lit.)
Flammability	Flammable. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit / flammability limit	no data available
Flash point	37\u00b0C
Auto-ignition temperature	~537.78\u00b0C
Decomposition temperature	no data available

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pH	no data available
Kinematic viscosity	no data available
Solubility	In water:soluble
Partition coefficient n-octanol/water (log value)	no data available
Vapour pressure	4.4 mm Hg (20 \u00b0C)
Density and/or relative density	0.957g/mL at 25\u00b0C(lit.)
Relative vapour density	3.2 (vs air)
Particle characteristics	no data available

SECTION 10.Stability and reactivity

10.1Reactivity

no data available

10.2Chemical stability

Stable under recommended storage conditions.

10.3Possibility of hazardous reactions

Moderate fire risk.BETA-PICOLINE may react with oxidizing materials . Neutralizes acids in exothermic reactions to form salts plus water. May be incompatible with isocyanates, halogenated organics, peroxides, phenols (acidic), epoxides, anhydrides, and acid halides. Flammable gaseous hydrogen may be generated in combination with strong reducing agents, such as hydrides.

10.4Conditions to avoid

no data available

10.5Incompatible materials

... Can react vigorously with oxidizing materials.

10.6Hazardous decomposition products

When heated to decomposition it emits toxic fumes of /nitrogen oxides/.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg

Inhalation LC50 Rat: > 50mg/L.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity

to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12.Ecological information

12.1Toxicity

Toxicity to fish: LC50; Species: Pimephales promelas (Fathead Minnow) age 29 days, length 18.1 mm, weight 0.077 g; Conditions: freshwater, flow through, 24.1\u00b0C, pH 7.8, hardness 43.5 mg/L CaCO₃, alkalinity 44.0 mg/L CaCO₃, dissolved oxygen 7.2 mg/L; Concentration: 144000 ug/L for 96 hr (95% confidence interval: 131000-160000 ug/L) /99% purity

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

12.2Persistence and degradability

AEROBIC: An aerobic biological screening study, which utilized a 10 mg/L yeast extract and an Aeris Ochraqulf soil for inocula, indicates that 3-methylpyridine is not readily biodegradable(1). At 24\u00b0C and a pH of 7, less than 1% of an initial 12.7 ppm of 3-methylpyridine was mineralized within 30 days as evidenced via the release of inorganic nitrogen(1). However, an aerobic soil grab sample study demonstrated rapid biodegradation of 3-methylpyridine(2). 3-Methylpyridine was added to Fincastle silt loam (Aeris Ochraqulf) with a pH of 6.7 and incubated at 25\u00b0C(2); within 32 days, 69.3% of the available nitrogen was released to inorganic forms(2); sterilized controls lost 11.7% of the starting material to volatilization; but, did not release inorganic nitrogen(2).

12.3Bioaccumulative potential

An estimated BCF of 3 was calculated for 3-methylpyridine(SRC), using a log Kow of 1.20(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC). Low bioconcentration was reported for tests using carp (Cyprinus carpio)(4), however actual BCF values were not available(SRC).

12.4Mobility in soil

Using a structure estimation method based on molecular connectivity indices(1), the Koc of 3-methylpyridine can be estimated to be 115(SRC). According to a classification scheme(2), this estimated Koc value suggests that 3-methylpyridine is expected to have high mobility in soil. The pKa of 3-methylpyridine is 5.63(3), indicating that this compound will exist partially in cation form in the environment and cations generally adsorb more strongly to soils containing organic carbon and clay than their neutral

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counterparts(4). Soil studies with 2-methylpyridine(5), a compound expected to have similar sorption properties as 3-methylpyridine(SRC), demonstrated that Koc can vary with pH with lowest adsorption occurring in the non-ionized form(5).
12.5 Other adverse effects
no data available

SECTION 13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14. Transport information

14.1 UN Number

ADR/RID: UN2313

IMDG: UN2313

IATA: UN2313

14.2 UN Proper Shipping Name

ADR/RID: PICOLINES

IMDG: PICOLINES

IATA: PICOLINES

14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

14.4 Packing group, if applicable

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

IMDG: no

IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15. Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
3-methylpyridine	3-methylpyridine	108-99-6	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.

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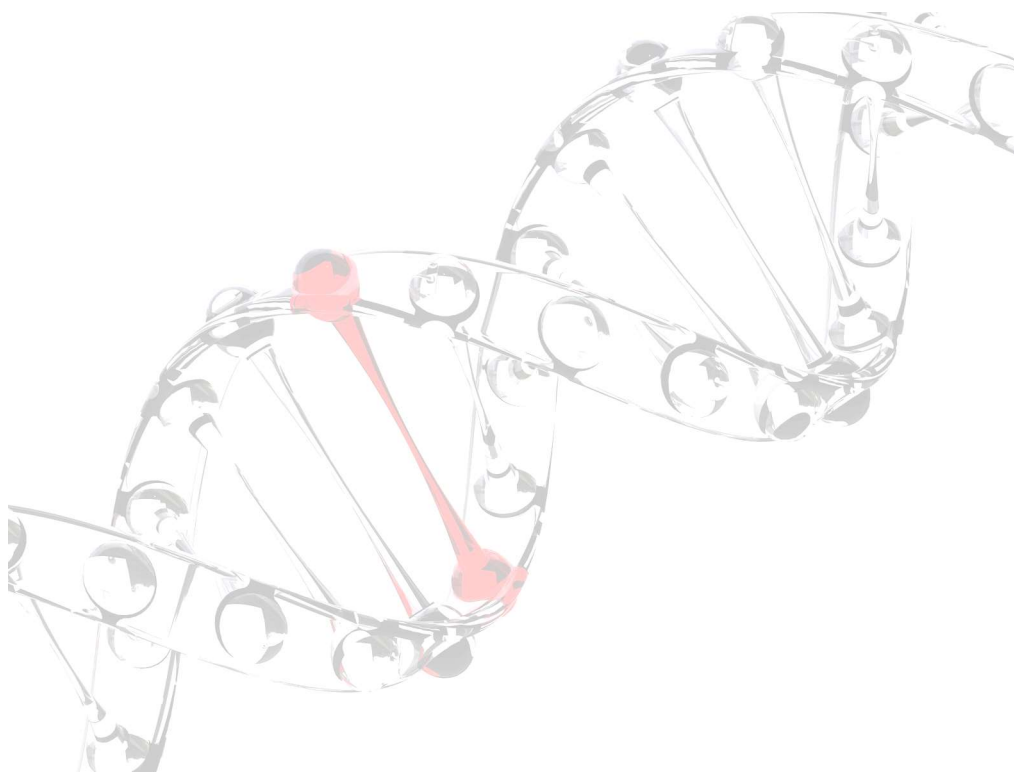
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Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.



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