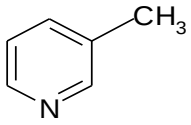
| | | |
|---|---|---|
| Date of compilation | : | April 05, 2012 |
| File Name | : | 0003Gj Ghs18 Div.2 sds Beta-picoline |
| Revision Number | : | 18 |
| Date of Issue | : | February 09, 2024 |
| Revision Due Date | : | January, 2027 |
| Supersedes date | : | September 28, 2021 |
| Supersedes version | : | 0003Gj Ghs17 Div.2 sds Beta-picoline |

## SECTION 1 : Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

| | |
|---|---|
| Product identification | : Beta picoline |
| CAS RN | : 108-99-6 |
| EC# | : 203-636-9 |
| Trade name | : Beta picoline |
| Systematic Name | : 3-Methylpyridine, 3-Picoline, Pyridine, 3-methyl- |
| Synonyms | : 3-Methylpyridine, 3-Picoline, Pyridine, 3-methyl-, Beta-Methyl pyridine, m-Methyl pyridine, m-Picoline |
| Molecular Formula | : C6H7N |
| Structural Formula | |




### 1.2 Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Identified uses

Beta Picoline is used as a solvent in making Metronidazole benzoate and dyes. It is used as an intermediate in Pharmaceutical industry and in making pesticides. It is also used for making Niacin.Based on the identified uses a Chemical safety Assessment with the relevant Risk Management measures have been prepared for this chemical.

**Uses advised against:** None

### 1.3 Details of the supplier of the safety data sheet

**FACTORY & REGISTERED OFFICE**: Jubilant Ingrevia Limited, Bhartiagram, Gajraula, District: Amroha, Uttar Pradesh-244223, India
T +91-5924-267437 & +91-5924-267438

**HEAD OFFICE**: Jubilant Ingrevia Limited, Plot 1-A, Sector 16-A,Institutional Area, Noida, Uttar Pradesh, 201301 - India
T +91-120-4361000 - F +91-120-4234881 / 84 / 85 / 87 / 95 / 96 support@jubl.com - www.jubilantingrevia.com

### 1.4 Emergency telephone

**For Chemical Emergency ONLY (in the case of fire, leak, spill, exposure or accident) Call**

**Chemtrec:** 1-800-424-9300 (US), 1-703-527-3887 (Outside U.S.)

**Chemtrec (India) :** 000-800-100-7141

**For ALL other emergencies call** Emergency Control Room Gajraula at 99970 22412

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance

**GHS-US classification**

| | |
|---|---|
| Flammable Liquid: Category 3 | H226 |
| Skin corrosion / irritant**:** Category 1C | H314 |
| Acute toxicity Oral: Category 4 | H302 |
| Acute Toxicity Dermal: Category 3 | H311 |
| Acute Toxicity Inhalation: Category 3 | H331 |
| Serious eye damage/eye irritation: Category 1 | H318 |
| Specific Target Organ Toxicity: Category 3 (After Single exposure) | H335 |

### 2.2 Label elements

***Pictograms:*** *GHS02, GHS05, GHS06*

***Signal word:*** Danger!

***GHS02-flammable***

***GHS05-Corrosive***

***GHS06-Toxic***

***2.3 Other hazards: Not available***

**Hazard and precautionary statements**
**Hazard Statements**

- H226: Flammable liquid and vapour.
- H302: Harmful if swallowed.
- H311: Toxic in contact with skin.
- H314: Causes severe skin burns and eye damage.
- H318: Causes serious eye damage.
- H331: Toxic if inhaled.
- H335: May cause respiratory irritation.

**Precautionary Statements**

- P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/light/…/equipment.
- P243: Take precautionary measures against static discharge.
- P260: Do not breathe dust/fume/gas/mist/vapours/spray.
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264: Wash … thoroughly after handling.
- P271: Use only outdoors or in a well-ventilated area.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- P370+378: In case of fire, use ... for extinction ... appropriate media specified by the manufacturer/supplier or the competent authority - if water increases risk.
- P403+235: Store in a well ventilated place. Keep cool
- P501: Dispose of the container as per local norms and regulations.

**2.3 Other Hazards**

- Substance is not classified as PBT nor as vPvB. For further details see section 12.

## SECTION 3: COMPOSITION / INFORMATION ON INGERDIENTS

**3.1 Substances**

| Substance | CAS No. | EINECS No. | Purity | GHS Classification |
|---|---|---|---|---|
| Beta- picoline | 108-99-6 | 203-636-9 | **98.5% (min)** | Flammable Liquid: Category 3 H226<br>Skin corrosion / irritant**:** Category 1C H314<br>Acute toxicity Oral: Category 4 H302<br>Acute Toxicity Dermal: Category 3 H311<br>Acute Toxicity Inhalation: Category 3 H331<br>Serious eye damage/eye irritation: Category 1 H318<br>Specific Target Organ Toxicity: Category 3 (After Single exposure) H335 |
| Alpha picoline | 109-06-8 | 203-643-7 | 0.2 % (max) | |
| 2-Ethyl pyridine | 100-71-0 | 202-881-9 | 0.3% (max) | |
| Gamma picoline | 108-89-4 | 203-626-4 | 1.0% (max) | |

**3.2 Mixtures**

Not applicable

## SECTION 4: FIRST AID MEASURES

**4.1 Description of first aid measures**

- **Eyes**: Symptoms: Lachrymator, redness, severe burns.
  If in eyes rinse cautiously with water for at least 15 minutes. Remove contact lenses if easy to do so. Continue rinsing. Seek immediate medical attention.
- **Skin:** Corrosive. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

- **Inhalation**: Symptoms: Corrosive. Cough. Labored breathing. Shortness of breath. Sore throat. Symptoms may be delayed. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if you feel unwell.
- **Ingestion**: Symptoms: Corrosive. Abdominal pain. Sore throat. Collapse. If swallowed call a poison center if you feel unwell. Rinse mouth. Do NOT induce vomiting by use of emetics. Seek prompt/immediate medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

- ***Acute effects:***
  High concentrations are extremely destructive to tissues of the mucous membranes and upper respiratory tract, eyes and skin. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Exposure can cause gastrointestinal disturbance.
- ***Chronic effects:***
  Damage to the liver and kidneys**.**

### 4.3. Indication of any immediate medical attention and special treatment needed

- Notes to Physician: Treat symptomatically.

## SECTION 5 : FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

- Appropriate extinguishing media :Dry chemical powder, carbon dioxide, and alcohol resistant foam. Water may also be used. Water sprays can be effective in cooling down the fire-exposed containers and knocking down the vapors. Water jets may be used to flush spills away and dilute the same to non-flammable mixtures.

### 5.2. Special hazards arising from the substance or mixture

- Vapor may flow long distance to distant ignition sources and flash back. Forms explosive mixtures in air. Emits toxic fumes under fire conditions. Toxic vapors may be released upon thermal decomposition (cyanides, nitrogen oxides, carbon monoxide).
- Consider isolating the fire when it involves the material and permitting it to burn itself out. Do not allow water to enter container, because of exothermic reaction.
- Flashback along vapor trail may occur. Closed container exposed to heat may explode. Irritating vapors and toxic fumes of carbon monoxide may be released in fore conditions.
- Consider isolating the fire when it involves the material and permitting it to burn itself out. Move all personnel out of the fire area. Move away in event of any explosion. Keep at safe distance.

### 5.3. Advice for firefighters

- Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Do not breathe vapors.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Always stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.
- Fire fighters must wear Self Contained Breathing Apparatus (SCBA) and full protective clothing. The chemical is harmful in contact with skin.
- Report any run-off of fire waters contaminated with this chemical as per local and federal procedures applicable.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures.

#### 6.1.1 For non-emergency personnel

- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- Avoid breathing vapors and contact with skin and eyes.
- Shut off leak source if possible.
- Shut off all possible sources of ignition.
- Wipe up.
- Decontaminate all equipment.
- Use non-sparking tools.

#### 6.1.2 For emergency personnel

- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- Alert Emergency Responders and tell them location and nature of hazard.
- Shut off all possible sources of ignition and increase ventilation.
- Stop leaks if possible.
- Clean up all spills immediately following relevant Standard Operating Procedures.
- Avoid breathing vapors and contact with skin and eyes.
- Use non-sparking tools.

### 6.2. Environmental precautions

- Clean up all spills immediately following relevant Standard Operating Procedures.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.
- Wipe up.
- Prevent, by any means available, spillage from entering drains or water and watercourses.
- Collect recoverable product into labeled containers for recycling, recovery or disposal.
- Contain spill with sand, earth or vermiculite.
- Spread area with lime or absorbent material, and leave for at least 1 hour before washing.

### 6.3. Methods and material for containment and cleaning up

**6.3.1: Containment of the spill.**

**(a) Bunding, covering of drains.**

- Alert Emergency Responders and tell them location and nature of hazard.
- Shut off all possible sources of ignition and increase ventilation.
- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- Stop leaks if possible.
- Prevent, by any means available, spillage from entering drains or water and watercourses.
- Collect recoverable product into labeled containers for recycling, recovery or disposal.
- Contain spill with sand, earth or vermiculite.
- Clean up all tools and equipment.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.

**(b) Capping procedure.**

- Clean up all spills immediately following relevant Standard Operating Procedures.
- Avoid breathing vapors and contact with skin and eyes.
- Shut off leak source if possible.
- Shut off all possible sources of ignition.
- Wipe up.
- Decontaminate all equipment.
- Use non-sparking tools.

**6.3.2 Cleanup procedure**

- Spread area with lime or absorbent material, and leave for at least 1 hour before washing.
- Decontaminate all equipment.

### 6.4. Reference to other sections

- Referred to section 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

- Do not breathe vapor or mist.
- Wear protective gloves/clothing and eye/face protection.
- Wash thoroughly after handling.
- Ground and secure containers when dispensing or pouring product.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Launder contaminated clothing before re-use.
- If on skin or hair, IMMEDIATELY remove all contaminated clothing and rinse/shower with plenty of water.
- Use in a well-ventilated place/Use protective clothing commensurate with exposure levels.

### 7.2. Conditions for safe storage, including any incompatibilities

- Store at ambient temperature in a dry and well ventilated place.
- Store in a flame proof area.
- Store away from incompatible materials.
- Keep only in original container.
- Keep securely closed when not in use.

### 7.3. Specific end use(s)

- Beta Picoline is used as a solvent in making Metronidazole benzoate and dyes. It is used as an intermediate in Pharmaceutical industry and in making pesticides. It is also used for making Niacin.

## SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

**8.1.1 Exposure Limits Values**

| Chemical name | ACGIH TLV | OSHA PEL |
|---|---|---|
| Beta-picoline | Not established | Not established |

## 8.2 Exposure Controls

The hazard associated with this property is the potential for fire or explosion due to vapor concentration. The most likely occurrence would result from:

- Spills or releases during storage or transfer
- Flammable vapor concentrations present during maintenance operations
- Exposure to open flame /sparks / excessive heat / static electricity

The severity of the impact of the hazard above is suggested to the employee injury ranging from minor to severe burns or inhalation of products of combustion, which may include cyanides, nitrogen oxides and carbon monoxide. Significant damage to operating equipment from explosion or fire may cause release of material.

a) The substance is rigorously contained by technical means during its whole life cycle including use, purification, cleaning, maintenance of equipment, sampling, analysis, loading and unloading of equipment vessels, waste disposal or purification and storage
b) Procedural and control technologies are used that minimize emission and any resulting exposure
c) Only properly trained and authorized personnel handle this substance.
d) In the case of cleaning and maintenance works, special procedures such as purging and washing are applied before the system is opened and entered.
e) In cases of accident and where waste is generated, procedural and/or control technologies are used to minimize emissions and resulting exposure during purification or cleaning and maintenance procedures, and
f) Substance handling procedures are well documented and strictly supervised the side operator

**Acute Toxicity (Oral/Dermal/Inhalation)**

- High concentrations are extremely destructive to tissues of the mucous membranes and upper respiratory tract, eyes and skin. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Exposure can cause gastrointestinal disturbance.
- **Beta Picoline is harmful if swallowed, toxic in contact with skin and if inhaled. It causes irritation to skin, eyes and respiratory system.**

**Irritation/Corrosivity (Skin/eyes/Respiratory tract):**

- Although in modern skin or eye animal studies have been conducted, the weight of evidence indicates that the liquid material is likely to be a severe eye irritant, whilst the vapour irritant to the eyes and respiratory tract. In humans severe irritation of the eyes and respiratory tract resulted from exposure to the vapour/aerosol and the liquid is corrosive to skin.

**Repeated dose Toxicity, sub acute/sub chronic/chronic(Oral/Dermal/Inhalation):**

- **Chronic Exposure**
  No chronic exposure data were located.

**8.2.1 Appropriate Engineering Controls:**

- Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Local ventilation is usually preferred. Ensure that eyewash stations and safety showers are close to the workstation location.

**8.2.2. Personal Protection:**

- Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- **Hands**: Wear appropriate protective gloves to prevent skin exposure.
- **Eyes**: Safety goggles/ Chemical Safety glasses and Face shield.
- **Clothing**: Boots and clothing to prevent contact.

**Respirator**: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

# SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

## 9.1. Information on basic physical and chemical properties

| Sr.No. | Parameter | Typical value |
|---|---|---|
| 1. | Appearance | Colorless to yellow tinted liquid |
| 2. | Odor | Sweetish, Characteristic |

| | | |
|---|---|---|
| 3. | Odor Threshold | < 1ppm |
| 4. | pH | 10 (in water solution, 100 g/L @ 20°C) |
| 5. | Melting point/Freezing point | (-) 18.3 °C |
| 6. | Initial Boiling point and boiling range | 143 °C |
| 7. | Flash point | 38$^0$C closed cup (100.4$^0$F) |
| 8. | Evaporation rate (n-BuAc=1) | Not available |
| 9. | Flammability (Solid, gas) | Flammable Liquid |
| 10. | Upper/lower flammability or Explosive limits | 1.3%-8.7% |
| 11. | Vapor pressure | 0.807 kPa |
| 12. | Vapor density (air=1) | 2.7 |
| 13. | Specific gravity or density | 0.9568 @20°C |
| 14. | Solubility | Miscible in water, 1.00E+06 mg/L<br>Temp: 25 °C |
| 15. | Log Pow, partition coefficient ( Octonol /water) | 1.2 |
| 16. | Auto-ignition temperature | 488°C |
| 17. | Decomposition temperature | Not available |
| 18. | Viscosity | 0.946 mPa · s (dynamic) at 20 °C |
| 19. | Explosive property | No |
| 20. | Oxidizing property | No |

**9.2. Other information.**

- **pKa (@25$^0$C):**5.63; **Refractive Index:**1.506 .; **Molecular Weight:**93.13; **Corrosive material:**Yes.

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

- BETA-PICOLINE may react with oxidizing materials (NTP, 1992). 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 ,acids and acid chlorides, Oxidizing materials like hydrogen peroxide and sulphuric acid and Chloroformates. Flammable gaseous hydrogen may be generated in combination with strong reducing agents, such as hydrides.

**10.2. Chemical stability**

- Stable under normal temperature and pressure. Heat will contribute to instability.

**10.3. Possibility of hazardous reactions**

- Thermal decomposition may produce Cyanide, nitrogen oxides and carbon monoxide.

**10.4. Conditions to avoid**

- Hygroscopic**.** Keep away from heat, sparks, flame, high temperature and incompatible chemicals.

**10.5. Incompatible materials**

- Acids and acid chlorides, Oxidizing materials like hydrogen peroxide and sulphuric acid and Chloroformates.

**10.6. Hazardous decomposition products**

- Thermal decomposition may produce Cyanide, nitrogen oxides and carbon monoxide.

**10.7. Hazardous Polymerization**: Not reported.

## SECTION 11: TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects**

***a) Acute toxicity***

**RTECS#**: TJ5000000

| No. | Parameter | Data |
|---|---|---|
| 1 | **Acute Oral LD50** | = 400 mg/kg |

| | | |
|---|---|---|
| 2 | **Acute Inhalation LC50:** | = < 3300 ppm |
| 3 | **Acute Dermal LD50:(rodent)** | = 1000mg/kg |
| 4 | **Acute Inhalation Rat Lcl0** | = 11820 Mg/M3/5h. |
| 5 | **Intraperitoneal Rat Ld50** | = 150mg/Kg |
| 6 | **Intraperitoneal Mouse Ld50** | 596mg/Kg |

**b) SKIN CORROSION/ IRRITATION**
It causes burns and is irritating to skin.

**c) SERIOUS EYE DAMAGE/IRRITATION**
It is irritating to eyes.
**Parameter:** Irritation/corrosion (Epidemiological data)
**Data :**Beta-picoline is a strong irritant ...on contact with eyes, usually with delayed action; contact is followed by lacrimation, photophobia, conjunctivitis and corneal edema. Inhalation can cause nasopharyngeal and upper respiratory tract irritation, with burning sensations, cough and dyspnea; prolonged exposure may lead to pulmonary edema.

d) **RESPIRATORY OR SKIN SENSITIZATION;**
Data is not available.

**Skin Sensitization**
**Parameter** **:** Skin sensitization.
**Data** **:** Ambiguous results. Dermal sensitization been reported in some cases.

**e) GERM CELL MUTAGENICITY**
**Parameter** : Mutagenicity
**Data :**Genotoxic activity was absent (i.e., DNA lesions were not induced and mutagenic activity was not induced) when tested using the following tests: DNA single-strand breaks measurement in V79 cells, HGPRT gene mutation assay in V79 cells, and Ames Salmonella/microsome test.

**f) CARCINOGENICITY**
- Not listed by NTP, IARC and OSHA.
- Not present on the EU CMR list.
- According to information presently available Beta Picoline is not found to be carcinogenic.

**g) REPRODUCTIVE TOXICITY**
No information available.

**h) STOT-SINGLE EXPOSURE**
No information available.

**i) STOT- REPEATED EXPOSURE**
No information available.

**j) ASPIRATION HAZARD.**
No information available.

### 11.2 Other Information

- **Acute Effects**
  Beta Picoline is harmful if swallowed, toxic in contact with skin and if inhaled. It causes irritation to skin, eyes and respiratory system**.**
- **Chronic effects:**
  Damage to the liver and kidneys.
- **Target Organs**: Eyes, skin, respiratory system, CNS, liver and Kidney**.**

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

**12.1.1 Ecotoxicity:**
- OECD algae growth inhibition test: EC50 (Selenastrumcapricornutum) = 320 mg/L.
- OECD acute immobilization and reproduction test for Daphnia: EC50 (24 hours): between 180 mg/L and 320 mg/L; EC50 (48 hours) = 320 mg/L; NOEC = 180 mg/L.

- OECD fish testing: LC50 (96 hrs) between 560 mg/L and 1000 mg/L; NOEC (behavior) = 320 mg/L; NOEC (mortality) = 560 mg/L.

**12.1.2 .Chronic Toxicity to Fish:**

- No information is available.

**12.2. Persistence and degradability**

- Does not biodegrade readily based on very low BCF value.

**12.3. Bioaccumulative potential**

- BCF = Not available
- Log Pow = -1.2
- Does not biodegrade readily based on very low BCF value.

**12.4. Mobility in soil**

- Koc=53.46. Moderate mobility in soil.
- Henry's Law constant: 7.73E-06 atm-m3/mole. Moderately volatile from aqueous bodies, despite high water solubility.
- Log Pow=1.2. Low potential to bioaccumulate.

**12.5. Results of PBT and vPvB assessment**

- The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII.

**12.6. Other adverse effects**

- **Environment Fate:**
- Fully biodegradable within 28-day test period using OECD guidelines for CO2 evolution test.

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1 Waste treatment method**

- Burn in a chemical incinerator equipped with an afterburner and scrubber.
- Exert extra care in igniting, as this material is highly flammable.
- Dispose of this material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws. Note that disposal regulations may also apply to empty containers and equipment rinsates.

## SECTION 14: Transport information

- This substance is considered to be hazardous for transport by Air/Rail/Road and Sea and thus regulated by IMO/ IMDG/ IATA/ ICAO.

| Mode of Transport | Agency |
|---|---|
| **Land transport** | ADR/RID |
| **Maritime Transport** | IMDG |
| **Air Transport** | IATA |

**14.1. UN number**

- UN 2313

**14.2. UN proper shipping name**

- Picolines(3-Picolines)

**14.3. Transport hazard class(es)**

- Flammable liquid class 3
- Hazard Label


**14.4. Packing group**

- III

**14.5. Environmental hazards**

- It does not biodegrade readily based on very low BCF value and is fully biodegradable within 28-day test period using OECD guidelines for CO2 evolution test. It is moderately volatile from aqueous bodies, despite high water solubility and is low potential to bioaccumulate.
  Based on the environmental modeling, this material has a moderate potential to get absorbed in the organic matter of soil and is volatile from water bodies. Since this is an estimated result it is recommended that the material should be disposed into the environment. The material should never be disposed into the sewage.

**14.6. Special precautions for user**

- Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.

- Use explosion-proof electrical/ventilating/light/…/equipment.
- Take precautionary measures against static discharge.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Wash … thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.

## SECTION 15: REGULATORY INFORMATION

- **European Union Information**

**Classification as per CLP Regulation 1272/2008:**

- **Hazards Class and Category**: Flam. Liq. Cat.3; Acute Tox.Oral Cat.4; Acute Tox Dermal Cat.3, Eye Dam.Cat 1;Acute Tox. Inhalation Cat.3; STOT SE Cat3; Skin Corr 1C
- **Hazard Statements:** H226; H302; H311; H318;H331; H335;H314

| Chemical Inventory Lists: | Status |
|---|---|
| **TSCA:** | Present |
| **EINECS:** | 203-636-9 |
| **Canada(DSL/NDSL):** | Listed/ DSL |
| **Japan:** | 5-711 |
| **Korea:** | KE 2003-3-2408 |
| **Australia:** | Not Listed |
| **China: IECSC** | Listed |

**US information**

- EPA TSCA section 8 (b) chemical inventories.
- None of the chemicals in this product are listed under TSCA section 12b.
- None of the chemicals in this product have an RQ under SARA Section 302(RQ).
- None of the chemicals in this product have a TPQ under SARA Section 302(TPQ).
- None of the chemicals in this product contain any class1 & class2 ozone depletors, neither contain any hazardous air pollutants under 'Clean Air Act'.
- None of the chemicals in this product are listed as Hazardous substances or priority pollutants or Toxic substances list under 'Clean Water Act'.
- This product is not subject to SARA section 313 reporting requirements.
- **Philippines**: Yes
- **SARA 313**: not applicable
- **Reportable Quantities**: not applicable
- **State Regulations**: not applicable
- **Other Regulatory Listings:** This material is listed as a Volatile Organic Compound (VOC) by U.S. EPA; see 40 CFR 60.

## SECTION 16: OTHER INFORMATION

**a) Compilation information of safety data sheet**

| | |
|---|---|
| Date of compilation | : April 05, 2012 |
| Chemical | : Beta picoline |
| CAS # | : 108-99-6 |
| File Name | : 0003Gj Ghs18 Div.2 sds Beta-picoline |
| Revision Number | : 18 |
| Date of Revision | : February 09, 2024 |
| Revision Due Date | : January, 2027 |
| Supersedes date | : September 28, 2021 |

**b) A key or legend to aberrations and acronyms used in the safety data sheet**

- PBT =Persistent Bioaccumulative and Toxic.
- vPvB= Very Persistent and Very Bioaccumulative.
- SCBA= Self Contained Breathing Apparatus.
- NIOSH REL= National Institute for Occupational Safety and Health Recommended Exposure Limit.
- OSHA PEL=Occupational Safety and Health Administration Permissible Exposure Limit.
- OELTWA= Occupational Exposure Limit Time Weighted Averages.
- IDLH= Immediately Dangerous to Life or Health.
- UEL= Upper Explosive Limit.
- LEL= Lower Explosive Limit.
- RTECS= Registry of Toxic Effects of Chemical Substances.
- NTP=National Toxicology Program.
- IARC= International Agency for Research on Cancer.
- EPA=Environmental Protection Agency.

- TSCA= Toxic Substances Control Act.
- CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act.
- SARA= Superfund Amendments and Reauthorization Act.
- NFPA= National Fire Protection Association.
- WHIMS= Workplace Hazardous Materials Information System.
- DSL/NDSL= Domestic/Non-Domestic Substances List.
- CSR=Chemical Safety Report.
- BCF = Bio Concentration Factor.
- DNEL = Derived No Effect Level.
- PNEC = Predicted No Effect Concentration.
- TLV = Threshold Limit Value.
- ACGIH = American Conference of Governmental Industrial Hygienists.
- REACH = Registration, Evaluation .Authorization and Restriction of Chemicals.
- CLP = Classification, Labeling and Packaging.
- LD / LC = Lethal Doses / Lethal Concentration.
- GHS = Globally Harmonized System.
- ADR = Accord European relative au transport international de merchandises.
- IMDG-Code = International Maritime Code for Dangerous Goods.
- EmS = Emergency measures on Sea.
- ICAO = International Civil Aviation Organization.
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation.

**c) Key Literature reference and sources for data**

**Biographical reference and data sources**

- Globally Harmonized System of Classification and Labelling of Chemicals.
- CLP REG (regulation) (EC) no. 1272/2008, last modification by regulation (EC) no. 790/2009.

**SDS US (GHS HazCom 2012)**

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

(End of Safety Data Sheet)