



Resonance Specialties Limited

MATERIAL SAFETY DATA SHEET

Alpha Picoline MSDS

1. IDENTIFICATION :

Product Name : Alpha Picoline

2. COMPOSITION AND INFORMATION ON INGREDIENTS

MSDS NAME : Alpha picoline

SYNONYMS : Alpha-methyl pyridine, Alpha-Picoline, o-Picoline,
2-Picoline

OTHER LANGUAGE NAMES

De : 2-Methylpyridin

Es : 2-metilpiridina

Fr : 2-méthylpyridine

SYSTEMATIC NAME : Pyridine, 2-methyl; 2-Methylpyridine

CHEMICAL CLASSIFICATION : Aromatic Heterocyclic Compound

CHEMICAL FORMULA : C₆H₇N

C.A.S. NO. : 109-06-8

EC No. : 203-643-7

3. HAZARDS IDENTIFICATION

Overview: Clear liquid with strong unpleasant odour. Water soluble.

Mode of entry: Includes skin, inhalation, eyes and possible ingestion.

Flammable.

Skin: Highly irritating. Corrosive-causes burns.

Eyes: Corrosive. Risk of serious damage to the eyes.

Inhalation: Harmful. Symptoms may include ataxia, narcosis and depressed respiration.

Ingestion: Harmful. Possibly corrosive to the gastro-intestinal tract. Persons with liver and skin problems may be more susceptible.

Section 3. HAZARD IDENTIFICATION & HEALTH HAZARD

- ⇒ EU Risk Phrases
- ⇒ R10 - Xn; R20/21/22 - Xi; R36/37
- ⇒ NFPA: H3 ; F3; R0

4. FIRST AID MEASURES

Eye:

First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

Skin:

IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.

Inhalation:

IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Protective Clothing.

Ingestion:

DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the

victim's airway is open and lay the victim on his/her side with the head lower than the body.

5. FIRE FIGHTING MEASURES

Flash point: 270C closed cup (80.60F); Autoignition temperature: 5380C(10000F); Liquid m.p. -700C (2030K)

Extinguishing media:

Dry chemical powder, carbon dioxide, and alcohol resistant foam. Water may be ineffective.

Special fire fighting procedure:

Wear protective clothing, wear self-contained breathing apparatus.

Unusual fire and explosion hazard:

Emits toxic fumes of cyanide under fire conditions. Heat may cause pressure build up in containers (Bleve). Water may be used to cool containers exposed to heat.

6. ACCIDENTAL RELEASE MEASURES

- ⇒ Stop leaks if possible.
- ⇒ Contain spillage by any means available.
- ⇒ Check explosive limits.
- ⇒ Use low sparking hand tools and intrinsically safe equipment.
- ⇒ Absorb substance in sand or earth or any other suitable material, or cover with alcohol resistant foam.
- ⇒ If substance has entered a water course or sewer, inform the responsible authority.
- ⇒ Ventilate sewers and basements where there is no risk to personnel or public.

7. HANDLING AND STORAGE

- ⇒ Store in cool dry and ventilated place away from heat, flame and sparks
- ⇒ Use explosion proof equipment and tools only.
- ⇒ Keep away from oxidizing agents including sulfuric acid and hydrogen peroxide.
- ⇒ Protect against electrostatic charge
- ⇒ Wear suitable protective clothing, gloves and eye/face protection & use non-sparking tools.
- ⇒ **Hygroscopic in nature.**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- ⇒ **Exposure Controls:** Local exhaust ventilation must be provided.
- ⇒ **Odour threshold:** data not available
- ⇒ **Personal Protection:**
- ⇒ **Eyes:** Goggles are required.
- ⇒ **Hands:** Compatible gloves are required. (PE/Butyl)
- ⇒ **Clothing:** Chemical work clothes required to prevent contact through skin.
- ⇒ Wash thoroughly after handling
- ⇒ **Respirator:** Wear appropriate OSHA (29CFR 1910.124) /NIOSH/MSHA/EU(EN 149) or equivalent approved respirator where conditions demand.
- ⇒ Facilities using this chemical must have emergency showers and eye-baths.
- ⇒ **Exposure Limits.**

The American Industrial Hygiene Association has set Workplace Environmental Exposure Limits (WEEL) for Picolines in 1988. A TWA 8 hrs of 2ppm and STEL TWA 15 minutes of 5 ppm have been stated.

9. PHYSICAL AND CHEMICAL PROPERTIES

DATA

PHYSICAL STATE : Liquid

APPEARANCE : Colourless to yellow tinted

ODOR : Characteristic smell

ODOR THRESHOLD : 0.05-0.1 ppm

Log Pow : 1.1

BOILING POINT : 127 - 129 °C

MELTING POINT : (-)70 °C

FLASH POINT : 27°C

VAPOUR PRESSURE : 1.3 kPa

SPECIFIC GRAVITY (WATER=1) : 0.946

VAPOR DENSITY (AIR=1) : 2.7

SOLUBILITY IN WATER : Miscible

pH : 9.2

LEL : 1.4%

UEL : 8.6%

AUTO IGNITION TEMPERATUR : 535 °C

EXPLOSIVE SENSITIVITY TO IMPACTS : Data not available

EXPLOSIVE SENSITIVITY TO

STATIC ELECTRICITY : Data not available

FLAMMABLE MATERIAL : Yes

PYROPHORIC MATERIAL : No

EXPLOSIVE MATERIAL : No

OXIDISER : No

ORGANIC PEROXIDE : No

CORROSIVE MATERIAL : No

MOLECULAR WEIGHT : 93.14

10. STABILITY AND REACTIVITY

Stable chemical. Color may increase over time depending on storage conditions (Section 7) but this does not affect the product purity.

Conditions to avoid; Static discharge, high temperature and incompatible chemicals.

Incompatible with Acids, acid chlorides Oxidising agents like hydrogen peroxide and sulphuric acid Chloroformates

Slightly hygroscopic

Hazardous combustion or decomposition products: Thermal decomposition may produce cyanide.

11. TOXICOLOGICAL INFORMATION

Acute effects:

High concentrations are corrosive 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. Behavioural somnolence observed in test animals. Neurotoxicity indication in rats via dermal adsorption.

Chronic effects: May affect liver function (reversible increased liver weight), blood clotting factors, decrease in red blood cells

Toxicity:

RTECS #: TJ4900000

ACUTE ORAL RAT LD50 : 790 mg/kg

ACUTE INHALATION MOUSE LC50 : 9 gm/m³

ACUTE INHALATION RAT LCL0 : 4000ppm/4 hr.

ACUTE DERMAL RABBIT LD50 : 410µl/kg

INTRAPERITONEAL RAT LD50 : 200mg/kg

INTRAPERITONEAL MOUSE LD50 : 529mg/kg

CARCINOGENICITY MUTAGENICITY REPRODUCTIVE TOXICITY

- ⇒ **Ames Test:** Negative
- ⇒ **Carcinogenicity:** Not listed as carcinogenic by IARC or any other agency.

12. ECOLOGICAL INFORMATION

Summary: This material should not be directly introduced into environmental bodies without treatment. Not classified dangerous to the aquatic environment since it is readily biodegradable.

Mobility:

- ⇒ **Koc=96.2** Low sorption. High mobility in soils with non-acidic pH.(pKa=6)
- ⇒ **Henry's Law constant:** 9.96×10^{-6} . Moderately volatile from aqueous bodies, despite high water solubility.
- ⇒ **Log Pow=1.1.** Low potential to bioaccumulate.
- ⇒ **Kphot=1.1x10⁻¹²** cu cm/molecule-sec at 25 deg C(SRC). Half life estimated at 15 days.

Biodegradability

Sufficient data exists to conclude rapid biodegradation (100% possible within 14d) under aerobic conditions. Resistant to biodegradation under anaerobic conditions (>100d).

Ecotoxicity

- ⇒ **Acute toxicity:** Pimephales Promelas (Fish, fresh water, fathead minnow) LC50: 897mg/l, 96 hours. Temp.: 25.6oC (DSM NV)
- ⇒ Not expected to be toxic to algae.

13. DISPOSAL CONSIDERATIONS

- ⇒ US RCRA Chemical code: U191 (Hazardous waste)
- ⇒ Burn in a chemical incinerator equipped with an afterburner and scrubber.
- ⇒ Exert extra care in igniting, as this material is highly flammable.
- ⇒ Observe all federal, state and local environmental regulations

14. TRANSPORTATION INFORMATION

Classification as per IMO/IMDG/US Dot/ IATA

PROPER SHIPPING NAME : Picolines

UN/ID NUMBER : 2313

UN HAZARD CLASS : 3

UN PACKING GROUP : III

15. REGULATORY INFORMATION

European information

- ⇒ EC#203-643-7
- ⇒ Annex I Index# : 613-036-00-2
- ⇒ Classification : R10 - Xn; R20/21/22 - Xi; R36/37

Risk Phrases

- ⇒ R 10 Flammable.
- ⇒ R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- ⇒ R 36/37 Irritating to eyes and respiratory system.

Safety Phrases

- ⇒ S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- ⇒ S 36 Wear suitable protective clothing.

US information

- ⇒ EPA TSCA section 8 (b) chemical inventory. CAS RN 109-06-8 present
- ⇒ 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 an 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 subject to SARA section 313 reporting requirements.
- ⇒ The CERCLA RQ of this product is 5000 lbs
- ⇒ **Chris Code:** MPR

Canada: Present on the DSL

AICS: Pyridine, 2-methyl listed

16. ADDITIONAL INFORMATION

MSDS Creation **Date:** 07/18/1996

MSDS Revision **Date:** 08/18/2007

The information above is believed to be accurate and represents the best information currently available to us. However we take no warranty of merchantability or any other warranty express or implied with respect to such information and we assume no liability resulting from the use Users should make the own investigation to determine the suitability of information for there particular purposes. In no way shall be company be liable for any claim losses or damages of any third party of for lost profit or a special indirect incidental consequential or exemplary damages howsoever arising. Even if the company has been advised of the possibility of such damages.