

GPS Safety Summary N-Ethyl ortho toluidine

Reference number: AIL-GPS-006 Issue date: 15/10/2021 Revision date: 01/07/2025

Version: 1.0 <u>CL-4: PUBLIC</u>

1. General Statement

N-Ethyl ortho toluidine is a yellowish liquid with amine-like odour. Combustible substance, poorly flammable (flash point > 60 up to 93 °C). Vapours may form explosive mixtures with air when the substance is heated above its flash point. Very slightly soluble in water. Low or very low-volatile. Acute or chronic health hazards result from the substance.

2. Chemical identity

Name : N-Ethyl ortho toluidine

CAS number(s) : 94-68-8 EC number : 202-354-3 Molecular formula : C9H13N

Structure :

3. Uses and Benefits

N-Ethyl-o-toluidine (2-(Ethylamino)toluene) is a stain used for proteomics research.

4. Physical / Chemical properties

Property	Value
Physical state :	Liquid
Colour :	Yellow
Odour :	amine-like
pH:	No data available
Melting point	Not applicable

GPS Safety Summary

N-Ethyl ortho toluidine CL-4: PUBLIC

Boiling point :	216 °C
Flash point :	88 °C
Density:	0.94 g/cm³
Solubility Water:	Very slightly soluble.

5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Toxic if swallowed, in contact with skin or if inhaled
Irritation / corrosion Skin / eye/ respiratory tract	NA
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	Causes damage to organs. May cause damage to organs through prolonged or repeated exposure
Genotoxicity / Mutagenicity	NA
Carcinogenicity	It may cause cancer.
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	No
Fate and behavior	Result
Persistence and degradability	No additional information available
Bioaccumulative potential	log P (octanol-water): 2.660 (estimated result)

7. Exposure

Human health

The substance may cause cancer and cause damage to organs.

The most likely route of human exposure (workers) is through skin. In industrial settings, ingestion is not an anticipated route of exposure. Workers may be exposed during (un)loading, mixing, sampling, analysis or maintenance operations and particularly in case of batch processes. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

Careless handling or accidental spillage of the chemical could result in exposure to potentially hazardous levels of chemicals.the substance is handled in closed systems, and it is usual for operators to wear impervious suits and self-contained breathing apparatus for operations involving the transfer of dimethyl sulfate, where there is the possibility of greater exposure.Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

Environment

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. More information about release measures and accidental release measures are available in the extended safety data sheet.

8. Risk Management Recommendations

Human health measures

Organizational	A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet.			
Protection	Eye protection:	Safety glasses		
	Skin and body protection:	Wear suitable protective clothing (Avoid inhalation or skin contact)		
	Respiratory protection:	High concentration or prolonged activity: self contained breathing apparatus. In the case of vapor formation: use a respirator with an approved filter		
Engineering controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.			
Environment protective measures				
Products must not be released into water without pre-treatment.				

9. First-aid measures

First-aid measures after inhalation : Remove the person to fresh air and keep them comfortable for breathing. Take medical advice.

First-aid measures after skin contact : Wash skin with plenty of water. Remove/Take off immediately all contaminated clothing.

GPS Safety Summary N-Ethyl ortho toluidine

First-aid measures after ingestion: Rinse mouth. Call a physician immediately.

First-aid measures after eye contact: Rinse eyes with water as a precaution.

10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media :Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire: Toxic fumes may be released.

Advice for firefighters

Precautionary measures fire : Eliminate all ignition sources if safe to do so. Keep the container closed when not in use. Keep the container tightly closed and away from heat, sparks and flame.

CL-4: PUBLIC

Firefighting instructions: Fight fire from safe distance and protected location. Do not enter a fire area without proper protective equipment, including respiratory protection.

11. Accidental release measures

Protective equipment: Protective clothing. Wear recommended personal protective equipment.

Environmental precautions: Avoid release to the environment.

For containment: Take up liquid spill into absorbent material.

12. Disposal consideration

Regional legislation (waste): Disposal must be done according to official regulations.

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations: Do not discharge into drains or the environment. Dispose of an authorized waste collection point. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals

13. Handling and storage

Precautions for safe handling: Obtain special instructions before use. Do not handle it until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area.

Ethyl ortho toluidine <u>CL-4: PUBLIC</u>

Hygiene measures: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

14. Classification and Labeling

Hazard pictograms (GHS US)





Signal word (GHS US) : Dang

Hazard statements (GHS US) : H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

H351 - Suspected of causing cancer. H370 - Causes damage to organs.

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust, fume, gas, mist, vapors, spray.

P264 - Wash hands, forearms and face thoroughly after handling.

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

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

P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing

protection.

P301+P310 - If swallowed: Immediately call a poison center or doctor.

P302+P352 - If on skin: Wash with plenty of water.

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.

P308+P311 - If exposed or concerned: Call a poison center or doctor. P308+P313 - If exposed or concerned: Get medical advice/attention.

P311 - Call a poison center or doctor.

P312 - Call a poison center or doctor if you feel unwell. P314 - Get medical advice or attention if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P330 - Rinse mouth.

P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulations.

15. Conclusion

N-Ethyl ortho toluidine substance is a yellowish liquid which may cause cancer and damage to organs. Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

16. Contact Information within company not mandatory

Manufacturer

Aarti Industries Limited

Udyog Kshetra, 2nd Floor, Mulund Goregaon Link Road, Mulund (West)

GPS Safety Summary N-Ethyl ortho toluidine

CL-4: PUBLIC

400080 Mumbai - India T +91-22-6797-6666 - F +91-22-2565 3234 info@aarti-industries.com - www.aarti-industries.com

This GPS safety summary is intended to give general information about the health, safety and environmental and not intended to provide in-depth details. To obtain the most accurate and current information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.