

1. General Statements

Toluidine mixture (OT58%, PT 38% and MT 4%) is likely an aromatic liquid, possibly an essential oil or an organic solvent with aromatic characteristics. The pale yellow color and aromatic odor suggest it could be a natural extract or a chemical compound containing aromatic rings.

2. Chemical identification.

Name :Toluidine mixture (OT 58%, PT 38% and MT 4%)
CAS number(s) :150-76-5
EC number :205-769-8
Molecular formula :C7H8O2

3. Uses and Benefits

Toluidine mixtures are starting materials in the production of rubber chemicals, antioxidants, and other organic compounds. Sometimes used in the manufacture of polymers and resins. Toluidines, especially ortho- and para-isomers, are sometimes used in analytical chemistry or as reagents in specific chemical reactions.

4. Physical / chemical properties

Property	Value
Physical state :	Liquid
Colour :	Pale yellow
Odour :	Aromatic odour
pH :	NA
Melting point :	-5 – -7 °C
Boiling point :	NA
Flash point :	88 °C
Density :	NA
Solubility in Water:	NA

5. Health Effects

Effect Assessment	Result
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Acute toxicity (Oral / inhalation / dermal)	Fatal if inhaled.Toxic if swallowed.
Irritation / corrosion Skin / eye/ respiratory tract	Harmful in contact with skin. May cause an allergic skin reaction.Irritation to eyes.
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	NA
Genotoxicity / Mutagenicity	NA
Carcinogenicity	NA
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	No
Fate and behavior	Result
Persistence and degradability	Not rapidly degradable
Bioaccumulative potential	No additional information available

7. Exposure

Human health

The toluidine mixture, predominantly composed of o-Toluidine (58%) and p-Toluidine (38%) with a small amount of m-Toluidine (4%), presents significant human health risks, primarily due to the toxicity of o-Toluidine.

o-Toluidine is the most hazardous component, classified as a probable human carcinogen with strong links to bladder cancer in exposed workers. It also poses risks of methemoglobinemia, skin and respiratory irritation, and organ damage from chronic exposure.**p-Toluidine** is moderately toxic and can cause irritation and blood disorders similar to o-Toluidine, though its carcinogenic potential is less clear and not officially classified.

m-Toluidine, while less studied and generally less toxic, still poses health risks including irritation and methemoglobinemia and should be handled with caution.

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.

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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
	Respiratory protection:	[In case of inadequate ventilation] wear respiratory protection.
Engineering controls	Ensure good ventilation of the work station.	
Environment protective measures		
Avoid release to the environment		

9. First-aid measures

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

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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

Extinguishing media

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

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 release

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.

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

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Protective equipment : safety goggles. protective gloves. Wear self-contained breathing apparatus and special tightly sealed suit.

Environmental precautions : Avoid release to the environment. Notify authorities if a product enters sewers or public waters.

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leaks without risks if possible.

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 : Disposal must be done according to official regulations.

13. Handling and storage

Precautions for safe handling : : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle it until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product in the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

14. Classification and Labeling

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GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H227 - Combustible liquid

H301 - Toxic if swallowed

H312 - Harmful in contact with skin

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H330 - Fatal if inhaled

H350 - May cause cancer.

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.

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

P260 - Do not breathe dust, fume, gas, mist, vapours, 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.

P272 - Contaminated work clothing must not be allowed out of the workplace.

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

P284 - Wear respiratory 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.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P310 - Immediately 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.

P320 - Specific treatment is urgent (see supplemental first aid instruction on this label).

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

P330 - Rinse mouth.

P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.

P337+P313 - If eye irritation persists: Get medical advice or attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use appropriate media to extinguish.

P403 - Store in a well-ventilated place.

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

The toluidine mixture, primarily composed of o-Toluidine (58%), p-Toluidine (38%), and m-Toluidine (4%), is a pale yellow aromatic liquid with significant industrial utility, particularly as a precursor in manufacturing rubber chemicals, antioxidants, polymers, and resins. It possesses distinct health hazards, with o-Toluidine being the most toxic and classified as a probable human carcinogen linked to bladder cancer, alongside risks of acute toxicity and irritation. Due to its toxicity and potential environmental impact, strict risk management measures are essential, including the use of personal protective equipment, proper ventilation, and rigorous handling and

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storage protocols to minimize exposure and environmental release. Emergency first-aid and firefighting procedures must be followed carefully given its hazardous nature.

16. Contact Information within company

Manufacturer

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This GPS safety summary is intended to give general information about the health, safety and environment 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.