

GPS Safety Summary <u>N,N-dimethylaniline</u>

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CL-4: PUBLIC

<u>1. General Statement</u>

N, N-Dimethylaniline is an organic chemical compound, a substituted derivative of aniline. It consists of a tertiary amine, featuring dimethylamino group attached to a phenyl group. This oily liquid is colourless when pure, but commercial samples are often yellow.

2. Chemical identity

Name	: N,N-dimethylaniline	
CAS number(s)	: 121-69-7	
EC number	: 204-493-5	
Molecular formula	: C8H11N	
Structure	:	
		ЧC



3. Uses and Benefits

N,N-Dimethylaniline is used as an intermediate in the manufacture of vanillin, Michler's ketone, methyl violet, and other dyes and also as a solvent, an alkylating agent, and a stabilizer.

4. Physical / chemical properties

Property	Value
Physical state :	Liquid
Colour :	Yellow
Odour :	No data available
рН :	7.4
Melting point	Not applicable
Boiling point :	185 °C
Flash point :	61 °C
Density :	0.96 g/cm3

Solubility in Water:	NA

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	NA
Genotoxicity / Mutagenicity	NA
Carcinogenicity	Suspected of causing cancer.
Toxicity for reproduction	Not classified

<u>6. Environmental Effects</u>

Effect Assessment	Result
Aquatic toxicity	Yes
Fate and behavior	Result
Persistence and degradability	No additional information available
Bioaccumulative potential	No additional information available

7. Exposure

Human health

The substance Suspected to cause cancer.Acute (short-term) inhalation exposure to N,N-dimethylaniline has resulted in effects on the central nervous system (CNS) and circulatory system, with headache, cyanosis, and dizziness in humans. Effects on the blood have been reported in exposed workers.

The most likely route of human exposure (workers) is through skin. In industrial settings, ingestion is not an anticipated route of exposure. The probability of exposure to workers is expected to be low because this product is manufactured in an enclosed controlled environment and is transported in well sealed containers. 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.

Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

Environment

Substance is very toxic to aquatic life with long lasting effects. 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 clothingWear impervious rubber safety shoes
	Respiratory protection:	Wear appropriate mask. Self-contained breathing apparatus, wear respiratory protection.
	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		
Product must not be released into water without pre-treatment. Neutralize wastewater before release.		

9. First-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact: Wash skin with plenty of water. Take off immediately all contaminated clothing. Be careful, the product may remain trapped under clothing, footwear or a wrist-watch. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Get medical advice/attention.

First-aid measures after eye contact : Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do.Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : If swallowed, seek medical advice immediately and show this container or label. If you feel unwell, seek medical advice.

10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:Waterspray,Drypowder,Foam,Carbondioxide.Unsuitable extinguishing media: NASpecial hazards arising from the substance or mixtureHazardous decomposition products in case of fire: On burning: release of toxic and corrosive gases/vapours

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.

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

<u>11. Accidental release measures</u>

(nitrous vapours, carbon monoxide - carbon dioxide).

Protective equipment :Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product. Wear recommended personal protective equipment.

Environmental precautions: Prevent liquid from entering sewers, watercourses, underground or low areas. Avoid release to the environment.

For containment : Stop leak without risks if possible. Collect spillage.

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.

Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Hazardous waste shall not be mixed together with other waste. Hazardous waste shall be managed responsibly. 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 : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle 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. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. 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. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

14. Classification and Labeling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

Signal word (CLP) Hazard statements (CLP)

Precautionary statements (CLP)

GHS06 GHS08 GHS09
Danger
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled.
H351 - Suspected of causing cancer.
H411 - Toxic to aquatic life with long lasting effects.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P261 - Avoid breathing 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.

15. Conclusion

N,N-Dimethylaniline is oily liquid and is colourless when pure, but commercial samples are often yellow. The substance Suspected to cause cancer. 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

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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.