

GPS Safety Summary 4-Methoxy-2-nitroaniline (bordeaux gp base)

Reference number: AIL-GPS-121 Issue date: 05/06/2025 Version: 1.0 CL-4: PUBLIC

1. General Statements

4-Methoxy-2-nitroaniline (bordeaux gp base) is crystalline solid which is orange red. Combustible substance, poorly flammable. Slightly soluble in water. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment.

2. Chemical identification.

Name :4-Methoxy-2-nitroaniline (bordeaux gp base)

CAS number(s) :96-96-8 EC number :202-547-2 Molecular formula :C7H8N2O3

Structure :

$$H_2N$$
 $O-CH_3$

3. Uses and Benefits

It is commonly used as an intermediate in the production of azo dyes, acid dyes, and reactive dyes.

4. Physical / chemical properties

Property	Value	
Physical state :	Solid	
Colour :	Orange-red.	
Odour :	Odourless	
pH:	NA	
Melting point :	124 °C	
Boiling point :	303.88 °C	
Flash point :	158.4 °C	
Density:	1.318 g/cm3 Type: 'density' Temp.: 20 °C	
Solubility in Water:	Poorly soluble in water.	

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5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Fatal 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	May cause damage to organs through prolonged or repeated exposure
Genotoxicity / Mutagenicity	NA
Carcinogenicity	NA
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	Yes
Fate and behavior	Result
Persistence and degradability	Not readily biodegradable in water.
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

7. Exposure

Human health

4-Methoxy-2-nitroaniline (bordeaux gp base) is fatal if swallowed, in contact with skin or if inhaled. It may cause damage to organs through prolonged or repeated exposure. The exposure must be kept as minimum as possible by the use of appropriate risk management measures 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:

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.

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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:	Face shield (EN 166). In case of dust production: protective goggles (EN 166)		
	Skin and body protection:	Protective clothing (EN 14605 or EN 13034). In case of dust production: head/neck protection. In case of dust production: dustproof clothing (EN 13982)		
	Respiratory protection:	Dust production: dust mask with filter type P3. On heating: full face mask with filter type A. High dust production: self-contained breathing apparatus (EN 136 + EN 137)		
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 victim into fresh air. Immediately consult a doctor/medical service.

First-aid measures after skin contact : Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents without medical advice. Remove clothing before washing. Consult a doctor/medical service

First-aid measures after eye contact: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice.

First-aid measures after ingestion : Rinse mouth with water. The victim is fully conscious: immediately induce vomiting. Induce vomiting by giving a 0.9 % saline solution. Immediately consult a doctor/medical service. Call Poison Information Centre (www.big.be/antigif.html). Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital.

Extinguishing media

Suitable extinguishing media : Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.

Unsuitable extinguishing media: Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

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Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire :On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide)

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 : Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

11. Accidental release measures

Protective equipment : Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Dust cloud production: self-contained breathing apparatus (EN 136 + EN 137). Dust cloud production: dust-tight suit (EN 13982).

Environmental precautions: Prevent soil and water pollution. Prevent spreading in sewers.

For containment : Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Provide equipment/receptacles with earthing. Knock down/dilute dust clouds with water spray. Take account of toxic/corrosive precipitation water.powered form no compressed air fpr pumping over spills.

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: Avoid raising dust. Take precautions against electrostatic charges. Keep away from naked flames/heat. In a finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Do not discharge the waste into the drain. Powdered form: no compressed air for pumping over. Keep the container tightly closed.

Hygiene measures: Observe very strict hygiene and avoid contact.

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14. Classification and Labeling

Hazard pictograms (CLP)





GHS06

Signal word (CLP)

Hazard statements (CLP)

: Danger

: H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled.

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

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P260 - Do not breathe dust.

P262 - Do not get in eyes, on skin, or on clothing.

P264 - Wash hands thoroughly after handling.

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

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

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing.

P284 - Wear respiratory protection.

P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P310 - Immediately call a doctor, a POISON CENTER. P314 - Get medical advice/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.

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 container, contents to hazardous or special waste collection point, in

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

15. Conclusion

2-nitro-p-anisidine is a solid, orange, odourless aromatic compound with moderate water solubility and low acute oral toxicity in animal studies. Although it is poorly flammable, there is a risk of dust explosion when handled as a fine powder in the presence of an ignition source. The substance may cause minor irritation to the eyes, skin, and respiratory tract upon exposure and has the potential to induce methemoglobinemia, a serious systemic condition. Due to limited data on chronic toxicity, reproductive effects, mutagenicity, and carcinogenicity, caution is advised during handling. Appropriate personal protective equipment (PPE), safe handling procedures, and immediate first aid measures should be implemented to minimize exposure risks. Continuous monitoring and updated toxicological evaluations are recommended to ensure occupational safety. 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

Manufacturer

Aarti Industries Limited

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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.