

GPS Safety Summary 3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE

Reference number: AIL-GPS-124 Issue date: 06/06/2025 Version: 1.0 CL-4: PUBLIC

1. General Statements

3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE is powder solid. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment.

2. Chemical identification.

Name :3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE

CAS number(s) :20325-40-0 EC number :243-737-5

Molecular formula :C14H18Cl2N2O2

Structure :

3. Uses and Benefits

It can be used as a reagent or intermediate in the synthesis of dyes and pigments, especially in the preparation of azo dyes. It is also used in laboratories for experimental purposes in organic synthesis and material science.

4. Physical / chemical properties

Property	Value	
Physical state :	Solid	
Colour :	White to grey.	
Odour :	Aromatic.	
pH:	1.7 at 20°C	
Melting point :	268 °C	
Boiling point :	NA	
Flash point :	206 °C	
Density:	NA	
Solubility in Water:	22.8 g/l , 20°C	

3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE

CL-4:PUBLIC

5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Harmful if swallowed.
Irritation / corrosion Skin / eye/ respiratory tract	Cause severe skin burns and eye damage
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	NA
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	Not readily biodegradable in water.
Bioaccumulative potential	No additional information available

7. Exposure

Human health

3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE is Harmful if swallowed. It causes severe skin burns and eye damage and it also may cause cancer. 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.

3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE

CL-4:PUBLIC

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		
	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 : Removing people to fresh air and keeping them comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion: Rinse mouth. Do not induce vomiting. Call a physician immediately.

Extinguishing media

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

Unsuitable extinguishing media: No additional information available.

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.

3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE

CL-4:PUBLIC

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 : 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: Clean up waste regularly and abnormal spills immediately. Avoid breathing dust and contact with skin and eyes. Wear protective clothing, gloves, safety glasses and dust respirator. Use dry clean up procedures and avoid generating dust.

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. 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. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

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

3.3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE

CL-4:PUBLIC

Hazard pictograms (CLP)





GHS05

GHS07

GHS08

Signal word (CLP)

Hazard statements (CLP)

: Danger

: H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H350 - May cause cancer.

Precautionary statements (CLP)

: 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, spray, vapours.

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

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

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

protection.

P301+P312 - IF SWALLOWED: Call a POISON CENTER, doctor if you feel unwell.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with 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 doctor, a POISON CENTER.

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

P330 - Rinse mouth.

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

3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE is a white to grey powder solid mainly used as an intermediate in the synthesis of dyes and pigments, particularly azo dyes, and as a reagent in organic synthesis research. It possesses significant health hazards including severe skin and eye corrosion, potential carcinogenicity, and toxicity if ingested. The substance is also hazardous to aquatic environments and is not readily biodegradable.

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

GPS Safety Summary 3,3-DIMETHOXYBENZIDINE DIHYDROCHLORIDE CL-4:PUBLIC

information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.