



Safety Data Sheet (SDS)

Revision / Review Date: 4/2/15

1. Chemical Product and Company Identification

Product Name:	HB-AM
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
SDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	Diphenylamine
Molecular Formula:	C12H11N
Molecular Weight via GPC, Mn:	169.22 g/mol
Product Use:	Antioxidants and inhibitors
OSHA Status:	Hazardous
CAS No:	Proprietary

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

Warning:



Signs and Symptoms of Exposure: Not available.

Primary Routes of Entry: Inhalation, ingestion, skin and/or eye contact

Medical Conditions Generally Aggravated by Exposure: Not available.

Emergency Overview: May form combustible dust concentrations in air. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. Avoid release to the environment. Get medical advice/ attention if you feel unwell. Collect spillage. Dispose of contents/ container to an approved waste disposal plant.

Eye Contact: Irritation to the eyes.

Skin Contact: Irritation to the skin.

Ingestion: May cause irritation of the digestive tract.

Inhalation: Inhalation of vapor may cause respiratory tract irritation.

HB Chemical 1665 Enterprise Parkway Twinsburg, Ohio 44087

Phone 330-920-8023 Fax 330-920-0971

www.hbchemical.com

<u>NFPA Rating:</u>	Health- 2,	Flammability- 1,	Instability- 0
<u>HMIS Hazard Ratings:</u>	Health- 2,	Flammability -1 ,	Reactivity - 0
<u>HMIS limitation statement:</u>	The HMIS hazard ratings numbers are meant to give a quick indication of the relative hazards associated with the product. All of the information contained in the SDS should be consulted to assist with the safe handling of this material.		
<u>Principal Hazardous Components:</u>	Diphenylamine, CAS No. 122-39-4, TWA 10 mg/m3 ACGIH		

3. Composition / Information on Ingredients

Weight Percent / Typical	Component Identity	CAS Registry Number
Proprietary	Diphenylamine	122-39-4

4. First Aid Measures

<u>Inhalation:</u>	Remove to fresh air. Obtain medical attention.
<u>Eyes:</u>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<u>Skin:</u>	Remove contaminated clothing and shoes. Wash off with warm water and soap. If symptoms persist, call a physician.
<u>Ingestion:</u>	Do not induce vomiting. Rinse mouth with water. Obtain medical attention.

5. Fire-Fighting Measures

<u>Suitable Extinguishing Media:</u>	Water Spray, Dry Chemical, Carbon Dioxide CO2, Foam.
<u>Special Fire Fighting Procedures:</u>	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Do not use water spray jet. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Prevent fire extinguishing water from contaminating surface water or the ground water system.
<u>Hazardous Combustion Products:</u>	Not available.
<u>Unusual fire and explosion hazards:</u>	Not available.

6. Accidental Release Measures

<u>Steps to be taken in case material is spilled:</u>	Wear suitable protective equipment. Avoid contact with skin and eyes. Sweep up and shovel. Pick up and arrange disposal without creating dust.
<u>Environmental Disposal Information:</u>	Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.
<u>Waste Disposal:</u>	Dispose of contents/ container to an approved waste disposal plant.

7. Handling and Storage

<u>Empty Containers:</u>	Not available.
<u>Precautions to be taken in handling:</u>	Handle in accordance with good industrial hygiene and safety practice. Do not get in eyes or mouth or on skin. Avoid formation of dust and aerosols. Avoid strong acids, strong bases, and oxidizing agents.
<u>Storage:</u>	Keep in a dry, cool place. Store in original container. Keep container closed. Protect from contamination.

8. Exposure Controls / Personal Protection

<u>Exposure Controls:</u>	Not available.
<u>Respiratory Protection:</u>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<u>Ventilation:</u>	Provide adequate ventilation.
<u>Hand protection:</u>	Impervious gloves.
<u>Eye Protection:</u>	Safety glasses with side-shields. Tightly fitting safety goggles.
<u>Skin and Body Protection:</u>	Wear impervious clothing.
<u>Other Precautions:</u>	If fine dust is formed from this product, avoid dispersion of dust in air to reduce fire and explosion hazard.
<u>Decontamination Facilities:</u>	Eye bath, washing facilities (sinks / showers).

9. Physical and Chemical Properties

<u>Physical Form:</u>	Pastilles powder or flakes
<u>Appearance & Odor:</u>	Green to brown/ Characteristic

<u>Specific Gravity:</u>	Not available.
<u>Softening Point, R&B:</u>	Not available.
<u>Solubility in Water:</u>	Insoluble
<u>Flash Point, TAG CC F:</u>	179.4 °C
<u>Percent Volatiles (by weight):</u>	Not available.
<u>Evaporation Rate (Water ~ 1):</u>	Not available.
<u>Vapor Pressure (mm Hg):</u>	Not available.
<u>Vapor Density (Air ~ 1):</u>	Not available.
<u>Boiling Point (°F) Initial:</u>	576°F 302 °C
<u>Auto ignition Temperature, °C:</u>	Not available.
<u>Flammable Limits, %(V):</u>	Not available.
<u>Melting point:</u>	85 °C
<u>Relative density:</u>	1.16

10. Stability and Reactivity

<u>Stability:</u>	This product is stable under normal conditions.
<u>Incompatibility (Materials to Avoid):</u>	Strong acids, strong bases and oxidizing agents.
<u>Conditions to Avoid:</u>	Extremes of temperature and direct sunlight.
<u>Hazardous Polymerization:</u>	Hazardous polymerization will not occur.
<u>Hazardous decomposition products:</u>	Carbon oxides.

11. Toxicological Information

This material is not listed as a carcinogen or potential carcinogen by NTP, IARC, or OSHA.

<u>OSHA Permissible Exposure Limit:</u>	Not available.
<u>ACGIH Threshold Limit Value:</u>	Diphenylamine 10 mg/m3 TWA
<u>Oral:</u>	Rat- LD50: > 5,000 mg/kg
<u>Inhalation:</u>	8.33 mg/l, Exposure time: 4 h, Method: Calculation method.
<u>Dermal:</u>	5,000 mg/kg, Method: Calculation method.
<u>Skin irritation:</u>	Species: Rabbit, Result: No skin irritation.

<u>Eye irritation:</u>	Species: Rabbit, Result: No eye irritation.
<u>Repeated dose toxicity Diphenylamine (Component):</u>	Species: Mouse, male, Application Route: Oral, Organs: Blood, Liver, Kidney, Exposure time: (90 d), NOEL: 1.7 mg/kg, Lowest observed effect level: 93.8 mg/kg Species: Mouse, female, Application Route: Oral, Target Organs: Blood, Liver, Kidney, Exposure time: (90 d), NOEL: 2.1 mg/kg, Lowest observed effect level: 107 mg/kg
<u>Mutagenicity:</u>	Animal testing did not show any mutagenic effects.
<u>Teratogenicity:</u>	No toxicity to reproduction.
<u>Reproductive toxicity:</u>	No toxicity to reproduction.

12. Ecological Information

This material has not been evaluated for environmental effects.

Toxicity to fish: LC50: 2.2 mg/l, Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates: EC50: 1.2 mg/l, Exposure time: 48 h, Species: Daphnia magna (Water flea)

Bioaccumulation: No data available.

Mobility: No data available.

Biodegradability: No data available.

Results of PBT assessment: No data available.

Additional ecological Information: Avoid release to the environment.

13. Disposal Considerations

Reclaim or Dispose of material in accordance with all applicable local, state, and federal regulations.

14. Transport Information

D.O.T. Shipping Name: UN number : 3077, Description of the goods : Environmentally hazardous substances, solid, n.o.s. (diphenylamine), Class : 9, Packing group : III, Environmentally hazardous : yes Diphenylamine.

Air - ICAO (international Civil Aviation Organization): Not available.

Sea - IMDG (International Maritime Dangerous Goods): UN number : 3077, Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(diphenylamine), Class : 9, Packing group : III, EmS Number 1 : F-A, EmS Number 2 : S-F, Marine pollutant : yes, Diphenylamine

IATA:

UN number : 3077, Description of the goods : Environmentally hazardous substance, solid, n.o.s. (diphenylamine), Class : 9, Packing group : III, Environmentally hazardous : no

15. Regulatory Information

CERCLA Reportable Quantity:

This material does not contain any components with a CERCLA RQ.

SARA304 Reportable Quantity:

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards:

Fire Hazard, Chronic Health Hazard.

SARA 302:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313:

The following components are subject to reporting levels established by SARA Title III, Section 313: Diphenylamine, CAS No. 122-39-4.

California Prop 65:

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

US.TSCA:

On TSCA Inventory.

DSL:

All components of this product are on the Canadian DSL.

AICS:

On the inventory, or in compliance with the inventory.

NZIoC:

Not in compliance with the inventory.

ENCS:

On the inventory, or in compliance with the inventory.

KECI:

On the inventory, or in compliance with the inventory.

PICCS:

On the inventory, or in compliance with the inventory.

IECSC:

On the inventory, or in compliance with the inventory.

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of

any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.