

MATERIAL SAFETY DATA SHEET

DIPHENYLAMINE REAGENT
CAROLINA BIOLOGICAL

Revised: 09/12/07
Replaces: 07/10/07
Printed: 08/03/10

1. PRODUCT DESCRIPTION

Product Name: Diphenylamine Reagent
Product Code(s): 85-8371, 85-8373
Size: 100 mL, 500 mL
Chemical Name: Does not apply
CAS Number: None established for this mixture
Formula: See section 2
Synonyms: N/A
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principal Hazardous Components: Diphenylamine (CAS# 122-39-4) 1%
Sulfuric Acid (CAS# 7664-93-9) 94%
TLV and PEL units: Diphenylamine: ACGIH-TLV 10 mg/m3 (TWA)
Sulfuric acid: ACGIH-TLV 1 mg/m3 (TWA)
OSHA-PEL 1 mg/m3 (TWA)

3. HAZARD IDENTIFICATION

Emergency Overview: Causes severe burns. Do not get on skin.
Potential Health Effects:
Eyes: May cause irritation.
Skin: May cause irritation.
Ingestion: May cause gastrointestinal discomfort.
Inhalation: May cause irritation to respiratory tract.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
Ingestion - If swallowed, if conscious, give plenty of water. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.
Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm and quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point (Method Used): No data available
NFPA Rating: None established
Extinguisher Media:
Use dry chemical, CO2 or appropriate foam.
Flammable Limits in Air % by Volume:
Autoignition Temperature: None
Special Firefighting Procedures:
Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

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Unusual Fire and Explosion Hazards: Highly reactive and capable of igniting finely divided combustible materials on contact.

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:
Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing: Store away from bases.

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type):

None needed under normal conditions of use with adequate ventilation. NIOSH approved equipment should be worn if PELs are exceeded.

Ventilation:

Local Exhaust: Yes
Mechanical (General): Yes
Special: No
Other: No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab apron, eye wash, and safety shower.

9. PHYSICAL DATA

Molecular Weight: No data available.

Melting Point: No data available.

Boiling Point: No data available.

Vapor Pressure: No data available.

Vapor Density (Air=1): No data available.

Specific Gravity (H₂O=1): No data available.

Percent Volatile by Volume: No data available.

Evaporation Rate (H₂O=1): <1

Solubility in Water: 100%

Appearance and Odor: Clear, odorless, syrupy liquid

10. REACTIVITY DATA

Stability: Unstable

Conditions to Avoid: Avoid adding water to the acids since a large amount of heat is produced.

Incompatibility (Materials to Avoid): Water, alkali, alkali metals, carbides, chlorates, fulminates, nitrates, powdered metals and finely divided combustible materials.

Hazardous Decomposition Products: Sulfur oxides

Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Toxicity Data: Sulfuric Acid - Oral rat LD₅₀: 2140 mg/kg

Diphenylamine - Oral rat LD₅₀: 1165 mg/kg

Effects of Overexposure: Causes severe burns. Corrosive to all body tissue.

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Can cause severe acid burns. Inhalation and ingestion of fumes can cause damage to lungs.

Acute: See section 3

Chronic: No data available.

Conditions Aggravated by Overexposure: No data available.

Target Organs: No data available.

Primary Route(s) of Entry: No data available.

12. ECOLOGICAL DATA

EPA Waste Numbers: Sulfuric acid D002

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

Description: Sulfuric acid solution, 8, UN1830, II

15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute Chronic

Product or Components	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals Name Chemical List Category		CERCLA Sec. 103 RQ lbs.	RCRA Sec. 261.33
		No	No		
Diphenylamine	No	No	No	No	No
Sulfuric acid	Yes	Yes	No	1000	No

16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists

CAS Number..Chemical Abstracts Service Number

CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act

DOT.....U.S. Department of Transportation

IARC.....International Agency of Research on Cancer

mppcf.....million particles per cubic foot

N/A.....Not Available

NTP.....National Toxicology Program

OSHA.....Occupational Safety and Health Administration

PEL.....Permissible Exposure Limit

ppm.....parts per million

RCRA.....Resource Conservation and Recovery Act

SARA.....Superfund Amendments and Reauthorization Act

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TLV.....Threshold Limit Value
TSCA.....Toxic Substances Control Act