RICCA CHEMICAL COMPANY®

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Diphenylamine, ACS Reagent Grade

Product Number RDCD0650

Other Identifying Product Numbers RDCD0650-100B1, RDCD0650-500B1

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company Ricca Chemical Company
Address 412 West Fork Drive

Arlington, TX 76012 USA

Telephone 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)	800-424-9300
CHEMTREC (International)	1+ 703-527-3887

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SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Acute Toxicity - Oral	Category 3	H301	P264,P270,P301+P310,P321,P330, P405,P501
Acute Toxicity - Dermal	Category 3	H311	P280,P302+P352,P312,P321, P361+P364,P405,P501
Acute Toxicity - Inhalation (Vapors)	Category 3	H331	P261,P271,P304+P340,P311, P321,P403+P233,P405,P501
Carcinogenicity	Category 2	H351	P201,P202,P280,P308+P313,P405, P501
Specific Target Organ Toxicity - Single Exposure	Category 2	H371	P260,P264,P270,P308+P311, P405,P501
Specific Target Organ Toxicity - Repeated Exposure	Category 1	H372	P260,P264,P270,P314,P501
Hazardous to the Aquatic Environment, Short-term (Acute)	Acute 1	H400	P273,P391,P501
Hazardous to the Aquatic Environment, Long-term (Chronic)	Chronic 1	H410	P273,P391,P501
Combustible Dust	Category 1 - Combustible		

2.2. GHS Label Elements

Pictograms:

Signal Word: **Danger**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

Hazard Number	Hazard Statement
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled
H351	Suspected of causing cancer
H371	May cause damage to blood, urinary tract
H372	Causes damage to blood, urinary tract through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects
	May form combustible dust concentrations in air

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

Prevention

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust.
P264	Wash hands, arms, 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.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P311	If exposed or concerned: Call a poison center or doctor.
P314	Get medical advice or attention if you feel unwell.
P330	Rinse mouth.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P391	Collect spillage.

Storage

Precautionary Number	Precautionary Statement
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal

Precautionary Number	Precautionary Statement
P501	Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
N-phenylaniline	Diphenylamine; N-Phenylbenzenamine	122-39-4	100.00

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: May cause irritation, redness, pain, and tearing.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor. Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN: Wash with plenty of water. May cause irritation, redness, and pain.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Suspected of causing cancer WARNING! Harmful if swallowed, inhaled or absorbed through skin. Causes irritation to the eyes, skin and respiratory tract. Affects the blood. May cause methemoglobinemia (decrease in blood's oxygen-carrying capabilities). Can accumulate in body organs. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness, and pain. CHRONIC EFFECTS / CARCINOGENICITY: Long-term exposures may affect liver, kidneys and central nervous system.

4.3. Immediate Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Dry chemical powder, carbon dioxide, alcohol foam, polymer foam, water spray, fog

5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment and Precautions for Firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

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SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Pick up in a manner that does not generate dust. Powder may be moistened with water to aid in the clean-up.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store in a well-ventilated place. Keep container tightly closed. Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Protect from light.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

No limits found.

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Chemical Name	CAS Number	Exposure Limit
Diphenylamine	122-39-4	10 mg/m3 TWA

8.2. Engineering Controls

Use only outdoors or in a well-ventilated area. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: A system of local or general exhaust is recommended. If necessary, wear a dust mask respirator to minimize exposure to dust particles.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	solid
Color:	White to off-white
Odor:	pleasant, floral
Odor Threshold:	Data not available.
Melting/Freezing Point:	52.9°C
Boiling Point/Range:	302°C
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	153°C
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	N/A
Kinematic Viscosity:	Data not available.
Solubility:	0.04 g/L at 25°C
Vapor Pressure:	0.000215 hPa at 20°C
Evaporation Rate:	Data not available.
Relative Density:	1.16
Relative Vapor Density:	5.82
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	3.5

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage. Discolors on exposure to light.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Strong oxidizing agents, strong acids, hexachloromelamine, and trichloromelamine.

10.4. Hazardous Decomposition Products

Will not occur.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 100 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Diphenylamine	122-39-4	Oral LD50 Acute Toxicity Estimate 100 mg/kg (Source: ECHA)

Acute Toxicity - Dermal Exposure:

Dermal acute toxicity estimate (ATE): 300 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Diphenylamine	122-39-4	Dermal LD50 Acute Toxicity Estimate 300 mg/kg (Source: ECHA)

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 3.0000 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Diphenylamine	122-39-4	Inhalation LC50 Acute Toxicity Estimate 3 mg/L 4 h (Source: ECHA)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Diphenylamine	122-39-4	Group 2B (Possibly Carcinogenic to Humans) - Monograph 130 [2022]

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
	No data found.	

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
	No data found.	

11.3 Additional Toxicology Information:

Toxic if swallowed, in contact with skin or if inhaled. Suspected of causing cancer. May cause damage to blood, urinary tract. Causes damage to blood, urinary tract through prolonged or repeated exposure.

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SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Diphenylamine	122-39-4	Freshwater Algae	Acute	EC50 72 h Scenedesmus subspicatus 1.5 mg/L (IUCLID)
Diphenylamine	122-39-4	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 3.47 - 4.14 mg/L [flow-through] (EPA)
Diphenylamine	122-39-4	Water Flea	Acute	EC50 48 h Daphnia magna 1.69 - 2.46 mg/L (EPA)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

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SECTION 14: Transportation Information

14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT regulations.

14.2 Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG regulations.

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SECTION 15: Regulatory Information

15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Chemical Name	CAS Number	RQ
		No data found.

15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List	Regulatory Information
Diphenylamine	122-39-4	Emission Reporting	1.0 % de minimis concentration

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Diphenylamine	122-39-4	Present

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Diphenylamine	122-39-4	Environmental hazard

15.07. New Jersey Worker and Community Right-to-Know Components

Chemical Name	CAS Number	Regulatory Information
Diphenylamine	122-39-4	sn 0796

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Chemical Name	CAS Number	List	Status
Diphenylamine	122-39-4	DSL	Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Chemical Name	CAS Number	Status
Diphenylamine	122-39-4	Present (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Chemical Name	CAS Number	List	Number
Diphenylamine	122-39-4	EINECS	204-539-4

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Diphenylamine	122-39-4	Present [07158]

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Diphenylamine	122-39-4	Annex 1	Present [KE-28303]

15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Diphenylamine	122-39-4	(3)-133

SECTION 16: Other Information

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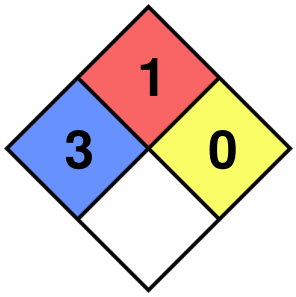
16.1 National Fire Protection Associate (NFPA) Rating

Health:	3
Flammability:	1
Reactivity	0
Special Hazard:	



16.2 Document Revision

Last Revision Date:
2026-05-24

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.