

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.26.2017

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## Diphenylamine

### SECTION 1: Identification

#### Product identifier

**Product name:** Diphenylamine

**Product code:** DP5000

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory Chemicals

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

##### Manufacturer:

##### United States

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331

1-717-632-1291

#### Emergency telephone number:

##### United States

##### ChemTel Inc

+1(800)255-3924

+1(813)248-0585

### SECTION 2: Hazard identification

#### GHS classification:

Acute toxicity (oral), category 3

Acute toxicity (dermal), category 3

Acute toxicity (inhalation), category 3

Specific target organ toxicity - repeated exposure, category 2

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

Combustible dust

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H900 May form combustible dust concentrations in air

H301 Toxic if swallowed

H311 Toxic in contact with skin

H331 Toxic if inhaled

H373 May cause damage to organs through prolonged or repeated exposure

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H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

#### Precautionary statements:

P264 Wash skin thoroughly after handling

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

P280 Wear protective gloves/protective clothing/eye protection/face protection

P271 Use only outdoors or in a well-ventilated area

P260 Do not breathe dust/fume/gas/mist/vapors/spray

P273 Avoid release to the environment

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

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P361 Immediately remove/take off all contaminated clothing

P363 Wash contaminated clothing before reuse

P302+P352+P312 If on skin: Wash with soap and water. Call a poison center or doctor/physician if you feel unwell

P304+P340+P311 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician

P314 Get medical advice/attention if you feel unwell

P391 Collect spillage

P405 Store locked up

P403+P233 Store in a well ventilated place. Keep container tightly closed

P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

### SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 122-39-4	Diphenylamine	100

**Additional Information:** None

### SECTION 4: First-aid measures

#### Description of first-aid measures

##### General notes:

Not determined or not available.

##### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

Move exposed individual to fresh air

Call a POISON CONTROL CENTER or seek medical attention

##### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Immediately remove all contaminated clothing

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Wash affected area with soap and water  
Seek medical attention if symptoms develop or persist  
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

#### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes  
If symptoms develop or persist, seek medical attention

#### After ingestion:

Rinse mouth thoroughly  
Seek medical attention if irritation, discomfort, or vomiting persists  
Immediately call a POISON CONTROL CENTER or seek medical attention  
Do not induce vomiting  
Rinse mouth and then drink plenty of water

#### Most important symptoms and effects, both acute and delayed

##### Acute symptoms and effects:

Not determined or not available.

##### Delayed symptoms and effects:

Not determined or not available.

#### Immediate medical attention and special treatment

##### Specific treatment:

Not determined or not available.

##### Notes for the doctor:

Not determined or not available.

### SECTION 5: Fire-fighting measures

#### Extinguishing media

##### Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

##### Unsuitable extinguishing media:

Not determined or not applicable.

#### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

#### Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

#### Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion  
Heating causes a rise in pressure, risk of bursting and combustion

### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation  
Ensure air handling systems are operational  
Wear protective eye wear, gloves and clothing

#### Environmental precautions:

Should not be released into the environment

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Prevent from reaching drains, sewer or waterway

### Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing

Sweep or scoop up solid material while minimizing dust generation

Dispose of contents / container in accordance with local regulations

### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Use only with adequate ventilation.

Avoid breathing dust.

Do not eat, drink, smoke or use personal products when handling chemical substances.

### Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.

Keep container dry.

Store in a cool, well-ventilated area.

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Diphenylamine	122-39-4	ACGIH TLV TWA 10.0 mg/m <sup>3</sup>
NIOSH	Diphenylamine	122-39-4	NIOSH REL TWA 10.0 mg/m <sup>3</sup>

### Biological limit values:

Substance	Identifier	Determinant	Sampling time	Permissible limits
Diphenylamine	122-39-4	Methemoglobin in blood (ACGIH)	End of shift	1.5%

### Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.

Biological monitoring may also be appropriate for some substances.

### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

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Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

#### Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

#### General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance (physical state, color):</b>	Colorless to gray powder
<b>Odor:</b>	Floral
<b>Odor threshold:</b>	Not determined or not available.
<b>pH-value:</b>	Not determined or not available.
<b>Melting/Freezing point:</b>	53°C
<b>Boiling point/range:</b>	302°C
<b>Flash point:</b>	153°C
<b>Evaporation rate:</b>	0.97
<b>Flammability (solid, gaseous):</b>	Flammable solid
<b>Explosion limit upper:</b>	Not determined or not available.
<b>Explosion limit lower:</b>	Not determined or not available.
<b>Vapor pressure:</b>	1 mmHg at 108°C
<b>Vapor density:</b>	5.82
<b>Density:</b>	Not determined or not available.
<b>Relative density:</b>	1.16
<b>Solubilities:</b>	Insoluble in water.
<b>Partition coefficient (n-octanol/water):</b>	log Pow: 3.5
<b>Auto/Self-ignition temperature:</b>	634°C
<b>Decomposition temperature:</b>	Not determined or not available.
<b>Dynamic viscosity:</b>	Not determined or not available.
<b>Kinematic viscosity:</b>	Not determined or not available.
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	Not determined or not available.

#### Other information

### SECTION 10: Stability and reactivity

#### Reactivity:

Does not react under normal conditions of use and storage.

#### Chemical stability:

Stable under normal conditions of use and storage.

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#### Possibility of hazardous reactions:

None under normal conditions of use and storage.

#### Conditions to avoid:

Store away from oxidizing agents, strong acids or bases. Excess heat, ignition sources, light, air, incompatible materials.

#### Incompatible materials:

Strong acids. Strong bases. Oxidizing agents.

#### Hazardous decomposition products:

Carbon oxides (CO, CO<sub>2</sub>).

### SECTION 11: Toxicological information

#### Acute toxicity

**Assessment:** Toxic if swallowed Toxic in contact with skin Toxic if inhaled

**Product data:** No data available.

#### Substance data:

Name	Route	Result
Diphenylamine	oral	LD50 - Guinea Pig - 300 mg/kg

#### Skin corrosion/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Serious eye damage/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

#### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Specific target organ toxicity (single exposure)

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**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:**

Name	Result
Diphenylamine	May cause damage to organs through prolonged or repeated exposure.

#### Specific target organ toxicity (repeated exposure)

**Assessment:** May cause damage to organs through prolonged or repeated exposure

**Product data:** No data available.

**Substance data:** No data available.

#### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

### SECTION 12: Ecological information

#### Acute (short-term) toxicity

**Assessment:** Very toxic to aquatic life

**Product data:** No data available.

**Substance data:**

Name	Result
Diphenylamine	EC50 - Daphnia magna (Water flea) - 0.27 - 0.36 mg/l - 48 h

#### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

#### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

#### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

#### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.

### SECTION 13: Disposal considerations

#### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

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### SECTION 14: Transport information



#### Canadian Transportation of Dangerous Goods (TDG)

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Diphenylamine).
UN transport hazard class(es)	9  
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

#### International Maritime Dangerous Goods (IMDG)

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Diphenylamine).
UN transport hazard class(es)	9  
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

#### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Diphenylamine).
UN transport hazard class(es)	9  
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

### SECTION 15: Regulatory information

#### Canada regulations

##### Domestic substances list (DSL):

122-39-4	Diphenylamine	Listed
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Non-domestic substances list (NDSL): Not determined.



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**Diphenylamine**

### SECTION 16: Other information

**Abbreviations and Acronyms:** None

**Disclaimer:**

This product has been classified in accordance with the Canadian Hazardous Products Regulations and WHMIS 2015. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 2-1-0

**HMIS:** 2-1-0-X

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**End of Safety Data Sheet**