

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.07.2017

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## Hexamethylenediamine

### SECTION 1: Identification

#### Product identifier

**Product name:** Hexamethylenediamine

**Product code:** S25350

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

**Relevant identified uses:** Not determined or not applicable.

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

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

#### Manufacturer or supplier details

##### Manufacturer:

AquaPhoenix Scientific  
860 Gitts Run Road  
Hanover  
PA 17331  
(717) 632-1291

##### Supplier:

Fisher Science Education  
6771 Silver Crest Road  
Nazareth  
PA 18064  
800 955-1177

#### Emergency telephone number:

##### United States

Emergency Telephone No.: 800-255-3924

### SECTION 2: Hazard identification

#### GHS classification:

Acute toxicity (oral), category 4

Acute toxicity (dermal), category 4

Skin corrosion, category 1B

Specific target organ toxicity - single exposure, category 3, respiratory irritation

Combustible dust

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H900 May form combustible dust concentrations in air

H302 Harmful if swallowed

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H335 May cause respiratory irritation

#### Precautionary statements:

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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  
P260 Do not breathe dust/fume/gas/mist/vapors/spray  
P271 Use only outdoors or in a well-ventilated area  
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  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician  
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.  
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.  
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.  
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: 124-09-4	Hexamethylaminediamine	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  
Move exposed individual to fresh air  
Immediately 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  
Wash affected area with soap and water  
Seek medical attention if symptoms develop or persist  
Immediately remove all contaminated clothing  
Immediately call a POISON CONTROL CENTER or seek medical attention

#### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

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If symptoms develop or persist, seek medical attention  
Remove contact lens(es) if able to do so during rinsing  
Immediately call a POISON CONTROL CENTER or seek medical attention

### After ingestion:

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

### 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:

Wear protective eye wear, gloves and clothing  
Refer to Section 8

### Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols  
Avoid contact with skin, eyes and clothing

## 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  
Prevent from reaching drains, sewer or waterway

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

Wear protective eye wear, gloves and clothing

### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.  
Avoid breathing mist or vapor.

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

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
WEEL	Hexamethylaminediamine	124-09-4	WEEL TWA 1.0 ppm
ACGIH	Hexamethylaminediamine	124-09-4	ACGIH TLV TWA 0.5 ppm

### Biological limit values:

No biological exposure limits noted for the ingredient(s).

### Information on monitoring procedures:

Not determined or not applicable.

### Appropriate engineering controls:

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

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

Select glove material impermeable and resistant to the substance.

#### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

### General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance (physical state, color):	White solid
Odor:	Amine-like, weak odor

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<b>Odor threshold:</b>	Not determined or not available.
<b>pH-value:</b>	12 in 1% Aq. Soln.
<b>Melting/Freezing point:</b>	38 - 41°C
<b>Boiling point/range:</b>	204°C
<b>Flash point:</b>	81 °C - closed cup
<b>Evaporation rate:</b>	Not determined or not available.
<b>Flammability (solid, gaseous):</b>	Flammable solid
<b>Explosion limit upper:</b>	7.6 vol. %
<b>Explosion limit lower:</b>	1.1 vol.%
<b>Vapor pressure:</b>	0.25 hPa at 20°C
<b>Vapor density:</b>	4.0 (Air = 1)
<b>Density:</b>	Not determined or not available.
<b>Relative density:</b>	0.848g/cm <sup>3</sup> at 20°C
<b>Solubilities:</b>	Soluble in water.
<b>Partition coefficient (n-octanol/water):</b>	log Pow= 0.02
<b>Auto/Self-ignition temperature:</b>	280 °C
<b>Decomposition temperature:</b>	Decomposes
<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.

##### Possibility of hazardous reactions:

None under normal conditions of use and storage.

##### Conditions to avoid:

Store away from oxidizing agents, strong acids or bases. High temperatures, moisture, metals, ignition sources, and strong oxidants.

##### Incompatible materials:

Strong oxidizing agents. nitric acid.

##### Hazardous decomposition products:

Oxides of carbon, oxides of nitrogen.

#### SECTION 11: Toxicological information

##### Acute toxicity

**Assessment:** Harmful if swallowed Harmful in contact with skin

**Product data:** No data available.

**Substance data:**

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Name	Route	Result
Hexamethylaminediamine	oral	LD50 Rat 750 mg/kg
	dermal	LD50 Rabbit 1,110 mg/kg

### Skin corrosion/irritation

**Assessment:** Causes severe skin burns and eye damage

**Product data:** No data available.

**Substance data:**

Name	Result
Hexamethylaminediamine	Corrosive to the skin.

### 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)

**Assessment:** May cause respiratory irritation

**Product data:** No data available.

**Substance data:**

Name	Result
Hexamethylaminediamine	May cause respiratory irritation through single exposure.

### Specific target organ toxicity (repeated exposure)

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

**Product data:** No data available.

**Substance data:** No data available.

### Aspiration toxicity

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

**Product data:** No data available.

**Substance data:**

Name	Result
Hexamethylaminediamine	LC50 - Leuciscus idus (Golden orfe) - 62 mg/l - 96 h
	EC50 - Daphnia magna (Water flea) - 23.4 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 (US 40CFR262.11)

## SECTION 14: Transport information

### Canadian Transportation of Dangerous Goods (TDG)

UN number	UN2280
UN proper shipping name	Hexamethylenediamine, solid
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None

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Special precautions for user	None
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### International Maritime Dangerous Goods (IMDG)

UN number	UN2280
UN proper shipping name	Hexamethylenediamine, solid
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None
Special precautions for user	None

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

UN number	UN2280
UN proper shipping name	Hexamethylenediamine, solid
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None
Special precautions for user	None

## SECTION 15: Regulatory information

### Canada regulations

#### Domestic substances list (DSL):

124-09-4	Hexamethylaminodiamine	Listed
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Non-domestic substances list (NDSL): Not determined.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

### Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 3-1-1

**HMIS:** 3-1-1-X



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**End of Safety Data Sheet**