

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 02.14.2018

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Toluene,

## SECTION 1: Identification

### Product identifier

**Product name:** Toluene,

**Product code:** S25611

### 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:

Flammable liquids, category 2

Skin irritation, category 2

Specific target organ toxicity - single exposure, category 3, central nervous system

Specific target organ toxicity - repeated exposure, category 2

Reproductive toxicity, category 2

Aspiration hazard, category 1

### Label elements

**Hazard pictograms:**



**Signal word:** Danger

### Hazard statements:

H225 Highly flammable liquid and vapor

H315 Causes skin irritation

H336 May cause drowsiness or dizziness

H373 May cause damage to organs through prolonged or repeated exposure

H361 Suspected of damaging fertility or the unborn child

H304 May be fatal if swallowed and enters airways

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## Toluene,

### Precautionary statements:

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P233 Keep container tightly closed
- P240 Ground/bond container and receiving equipment
- P241 Use explosion-proof electrical/ventilating/light/equipment
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P264 Wash skin thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area
- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P303+P361+P353 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower
- P370+P378 In case of fire: Use agents recommended in section 5 for extinction
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P362 Take off contaminated clothing and wash before reuse
- P302+P352 If on skin: Wash with soap and water
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell
- P308+P313 If exposed or concerned: Get medical advice/attention
- P331 Do not induce vomiting
- P301+P310 If swallowed: 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: 108-88-3	Toluene	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

#### After skin contact:

Rinse affected area with soap and water  
If symptoms develop or persist, seek medical attention

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Wash affected area with soap and water  
Seek medical attention if symptoms develop or persist

### 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

### 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 dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

#### Unsuitable extinguishing media:

Not determined or not applicable.

### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors  
Vapors can flow to distant ignition sources and flashback  
Liquid is volatile and may generate an explosive atmosphere

### 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  
Beware of vapors accumulating to form explosive concentrations  
Vapors can accumulate in low areas

### 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

Use spark-proof tools and explosion-proof equipment

### 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.

Use only non-sparking tools.

Take precautionary measures against electrostatic discharges.

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

Store in a cool, well-ventilated area.

Keep container tightly sealed.

Keep away from all ignition sources: open flames, hot surfaces, direct sunlight, spark sources.

Store locked up.

Use appropriate containment to avoid environmental contamination.

Protect from freezing and physical damage.

## 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
Canada	Toluene	108-88-3	Alberta OELs - 8-Hour TWA Exposure Limit: 50 ppm (188 mg/m <sup>3</sup> )
	Toluene	108-88-3	British Columbia OELs - 8-Hour TWA Exposure Value: 20 ppm
	Toluene	108-88-3	Manitoba OELs - 8-Hour Exposure Limit (TLV-TWA): 20 ppm
	Toluene	108-88-3	Ontario OELs - 8-Hour TWA Exposure Value: 20 ppm
	Toluene	108-88-3	Quebec OELs - 8-Hour TWA Exposure Value: 50 ppm (188 mg/m <sup>3</sup> )
	Toluene	108-88-3	Saskatchewan OELs - 8 Hour Average Contamination Limit: 50 ppm
	Toluene	108-88-3	Saskatchewan OELs - 15 Minute Average Contamination Limit: 60 ppm

### Biological limit values:

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

### Information on monitoring procedures:

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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.

Use explosion-proof ventilation equipment.

### 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

<b>Appearance (physical state, color):</b>	Clear, colorless liquid
<b>Odor:</b>	Sweet, pungent, benzenelike odor
<b>Odor threshold:</b>	1.03 to 140 ug/cu m
<b>pH-value:</b>	Not determined
<b>Melting/Freezing point:</b>	95°C (-139°F)
<b>Boiling point/range:</b>	110 - 111 °C (230 - 232 °F)
<b>Flash point:</b>	4.0 °C (39.2 °F)
<b>Evaporation rate:</b>	2.4
<b>Flammability (solid, gaseous):</b>	Highly flammable
<b>Explosion limit upper:</b>	7 %(V)
<b>Explosion limit lower:</b>	1.2 %(V)
<b>Vapor pressure:</b>	28.4 mm Hg at 25 deg °C
<b>Vapor density:</b>	3.1
<b>Density:</b>	Not determined
<b>Relative density:</b>	0.865 g/mL at 25 °C (77 °F)
<b>Solubilities:</b>	Insoluble in water
<b>Partition coefficient (n-octanol/water):</b>	log Kow 2.73
<b>Auto/Self-ignition temperature:</b>	535.0 °C (995.0 °F)
<b>Decomposition temperature:</b>	Not determined
<b>Dynamic viscosity:</b>	Not determined
<b>Kinematic viscosity:</b>	Not determined
<b>Explosive properties</b>	Not determined
<b>Oxidizing properties</b>	Not determined

### Other information

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## 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:

None known.

### Incompatible materials:

None known.

### Hazardous decomposition products:

None known.

## SECTION 11: Toxicological information

### Acute toxicity

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

**Product data:** No data available.

**Substance data:** No data available.

### Skin corrosion/irritation

**Assessment:** Causes skin irritation

**Product data:** No data available.

**Substance data:**

Name	Result
Toluene	Irritating 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):

Name	Classification
Toluene	Group 3 - Not classifiable as to its carcinogenicity to humans

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

### Germ cell mutagenicity

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## Toluene,

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

**Product data:** No data available.

**Substance data:** No data available.

### Reproductive toxicity

**Assessment:** Suspected of damaging fertility or the unborn child

**Product data:** No data available.

**Substance data:**

Name	Result
Toluene	Suspected of damaging fertility or the unborn child.

### Specific target organ toxicity (single exposure)

**Assessment:** May cause drowsiness or dizziness

**Product data:** No data available.

**Substance data:**

Name	Result
Toluene	Component affects the central nervous system.

### 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:** May be fatal if swallowed and enters airways

**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:** No data available.

### 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

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**Toluene,**

**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)

<b>UN number</b>	UN 1294
<b>UN proper shipping name</b>	Toluene
<b>UN transport hazard class(es)</b>	3 
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>Special precautions for user</b>	None

### International Maritime Dangerous Goods (IMDG)

<b>UN number</b>	UN 1294
<b>UN proper shipping name</b>	Toluene
<b>UN transport hazard class(es)</b>	3 
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>Special precautions for user</b>	None

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

<b>UN number</b>	UN 1294
<b>UN proper shipping name</b>	Toluene
<b>UN transport hazard class(es)</b>	3 
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>Special precautions for user</b>	None

## SECTION 15: Regulatory information

### Canada regulations



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**Toluene,**

## Domestic substances list (DSL):

108-88-3	Toluene	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:** 2-3-0

**HMIS:** 2-3-0

**Initial preparation date:** 02.14.2018

**End of Safety Data Sheet**