

## Safety Data Sheet

### 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product Identifiers

Product Name	Polyaniline- dinonylnaphthalenesulphonic acid solution in toluene
Manufacturer's Product Code	BM1720
CAS-No.	108-88-3 (toluene)

#### 1.2 Other means of identification

-

#### 1.3 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals
-----------------	----------------------

#### 1.4 Details of the supplier of the safety data sheet

Company	<b>Boron Molecular Pty Ltd</b>
Address	500 Princes Hwy (PO Box 756) Noble Park, Vic, 3174 Australia
Telephone Number	+61 3 8558 8000
Emergency Telephone Number	+1 703 527 3887 (Chemtrec) +61 2 9037 2994 (Chemtrec Australia)
Fax Number	+61 3 8558 8004

### 2 HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture-information for toluene listed below

Flammable liquids (category 2)  
Skin corrosion/irritation (category 2)  
Reproductive toxicity (category 2)  
Specific target organ toxicity – single exposure (category 3), central nervous system  
Specific target organ toxicity – repeated exposure (category 2)  
Aspiration hazard (category 1)

#### 2.2 Label elements



Signal word: Danger

#### Hazard Statements

H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

#### Precautionary Statements

#### Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking
P233	Keep container tightly closed
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection

Response	
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell
P331	Do NOT induce vomiting
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

### 2.3 Other hazards - none

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

<b>Synonyms</b>	Polyaniline-dinonylnaphthalenesulphonic acid (50%)
<b>Formula</b>	(C <sub>12</sub> H <sub>10</sub> N <sub>2</sub> -C <sub>28</sub> H <sub>44</sub> O <sub>3</sub> S) <sub>n</sub>
<b>Molecular weight</b>	~50,000
<b>CAS Number</b>	NA
<b>Synonyms</b>	Toluene (50%)
<b>Formula</b>	C <sub>7</sub> H <sub>8</sub>
<b>Molecular weight</b>	92.14
<b>CAS Number</b>	108-88-3

## 4 FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General Advice

Consult a Physician. Show this safety data sheet to the doctor in attendance.

#### Ingestion

If swallowed do not induce vomiting. If Victim is conscious, wash out mouth with copious amounts of water. Seek immediate medical assistance.

#### Eye

Immediately flush eyes with plenty of water for at least 20 minutes while holding eyelids open.

#### Skin

Immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Dispose of contaminated clothing and shoes in compliance with all local, state, and federal laws and regulations.

#### Inhalation

Remove affected person to fresh air. If not breathing, give artificial respiration & seek immediate medical attention. If breathing is difficult, give oxygen.

### SEEK IMMEDIATE MEDICAL ASSISTANCE IN ALL CASES

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No data available

---

**5 FIRE FIGHTING MEASURES**
**5.1 Extinguishing media**
**Suitable extinguishing media**

Foam / Carbon dioxide / Dry powder

**5.2 Special hazards arising from the substance or mixture**

Not Determined

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary

**5.4 Further information**

No data available

---

**6 ACCIDENTAL RELEASE MEASURES**
**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation. For respiratory protection, wear a NIOSH/MSHA approved dust mask or self contained breathing apparatus.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Clean up spill and arrange disposal. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

---

**7 HANDLING AND STORAGE**
**7.1 Precautions for safe handling**

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Keep container tightly closed. Do not breathe vapors or mist. Use only with adequate ventilation

**7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas.

**7.3 Specific end uses**

Apart from the uses mentioned in section 1.3, no other specific uses are stipulated.

---

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION**
**8.1 Control parameters**

Component	CAS Number	Value	Control Parameters	Basis
Toluene	108-88-3	TWA	50ppm, 190 mg/m <sup>3</sup>	Australia. Workplace exposure standards for airborne contaminants

Remarks: skin exposure

**8.2 Exposure controls**
**Appropriate engineering controls**

General industrial hygiene practice.

### Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EC).

#### Skin protection

Handle with chemical resistant gloves. Gloves must be inspected before use.

The selected protective gloves have to satisfy the specifications of EU directive 89/686/EEC and the standard EN 374 derived from it.

#### Body protection

Impervious clothing

#### Respiratory protection

When inhalation of vapor or mist is possible, use type N95 (US) or type P1 (EN 143) dust mask. Use respirators and components tested and approved under appropriate governments standards such as NIOSH (US) or CEN (EU).

---

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties- boiling point and flash point data based on toluene

a) Appearance ( <i>Color and Form</i> )	Dark green to black solution
b) Odour	Not Determined
c) Odour Threshold	Not Determined
d) pH	Not Determined
e) Melting Point	Not Determined
f) Boiling Point	110-111°C
g) Flashpoint	4°C (closed cup)
h) Evaporation rate	Not Determined
i) Flammability	Not Determined
j) Upper/lower flammability limits (% by volume)	Not Determined
k) Vapour Pressure	Not Determined
l) Vapour density	Not Determined
m) Relative density	Not Determined
n) Water solubility	Immiscible in water
o) Partition coefficient	Not Determined
p) Autoignition temperature	Not Determined
q) Decomposition temperature	Not Determined
r) Viscosity	Not Determined
s) Explosive properties	Not Determined
t) Oxidizing properties	Not Determined

### 9.2 Other safety information

No data available

---

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

Not Determined.

### 10.2 Chemical stability

Stable under recommended storage conditions

- 10.3 Possibility of hazardous reactions**  
Not Determined - Not expected to occur.
- 10.4 Conditions to avoid.**  
Not Determined.
- 10.5 Incompatible materials**  
Strong Oxidisers
- 10.6 Hazardous decomposition products**  
May include oxides of carbon and nitrogen.

---

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects- results listed for toluene

**a) Acute toxicity**

LD50 Oral – rat – > 5,580 mg/kg  
LC50 Inhalation – rat – 4h- 12,500 - 28,800 mg/m<sup>3</sup>  
LD50 Dermal – rabbit – 12,196 mg/kg

**b) Skin corrosion/irritation**

Skin- rabbit  
Result; Skin irritation – 24h

**c) Serious eye damage**

Eyes – rabbit  
Result: No eye irritation  
(OECD Test guideline 405)

**d) Respiratory or skin sensitization**

No data available

**e) Germ cell mutagenicity**

Rat  
Liver  
DNA damage

**f) Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
Limited evidence of carcinogenicity in animals

**g) Reproductive toxicity**

Damage to fetus possible Suspected human reproductive toxicant.  
Reproductive toxicity - Rat - Inhalation  
Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).  
Experiments have shown reproductive toxicity effects in male and female laboratory animals.  
Developmental Toxicity - Rat - Oral  
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

#### h) Specific target organ toxicity – single exposure

No data available

#### i) Specific target organ toxicity – repeated exposure

No data available

#### j) Aspiration hazard

No data available

#### k) Potential health effects

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

#### l) Signs and Symptoms of Exposure

See section 2.2.

#### m) Additional Information

## 12 ECOLOGICAL INFORMATION for toluene only

### 12.1 Toxicity

Toxicity to fish	LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - 7.63 mg/l - 96 h NOEC - <i>Pimephales promelas</i> (fathead minnow) - 5.44 mg/l - 7 d
Toxicity to daphnia and other aquatic invertebrates	EC50 - <i>Daphnia magna</i> (Water flea) - 8.00 mg/l - 24 h
Toxicity to algae	Immobilization EC50 - <i>Daphnia magna</i> (Water flea) - 6 mg/l - 48 h EC50 - <i>Chlorella vulgaris</i> (Fresh water algae) - 245.00 mg/l - 24 h EC50 - <i>Pseudokirchneriella subcapitata</i> (green algae) - 10.00 mg/l - 24 h

### 12.2 Persistence

Biodegradability Result: - Readily biodegradable

### 12.3 Bioaccumulative potential

Bioaccumulation	<i>Leuciscus idus</i> (Golden orfe) - 3 d - 0.05 mg/l
	Bioconcentration factor (BCF): 90

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

No data available

### 12.6 Other adverse effects

Toxic to aquatic life

## 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state & local environmental regulations.

#### Contaminated packaging

Dispose of as unused product.

---

**14 TRANSPORTATION INFORMATION – for Toluene****14.1 UN number**

ADR/RID: 1294      IMDG: 1294      IATA-DGR: 1294

**14.2 UN proper shipping name**ADR/RID: TOLUENE  
IMDG: TOLUENE  
IATA-DGR: Toluene**14.3 Transport hazard class(es)**

ADR/RID: 3      IMDG: 3      IATA-DGR: 3

**14.4 Packaging group**

ADR/RID: II      IMDG: II      IATA-DGR: II

**14.5 Environmental hazard**

ADR/RID: No      IMDG Marine pollutant: No      IATA-DGR: No

**14.6 Special precautions for user**

No data available

---

**15 REGULATORY INFORMATION****15.1 Safety, health and environment regulations/legislation specific for the substance or mixture**For Toluene;  
Standard for the uniform scheduling of medicines and poisons: Schedule 6  
Not listed as a carcinogen under WHS Regulation 2011, schedule 10

---

**16 OTHER INFORMATION**Date of Preparation      11 April 2019  
Revision No.      3**Disclaimer**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Boron Molecular Pty Ltd be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising.

---

**THE END**

---