

DATE : 1 JAN 2019

VERSION NO. : 2

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## Safety Data Sheet

### 1. Identification Of The Material & Supplier

**Product Name :** Toluol

**Other Names(s) :** Toluene, Methyl Benzene, Aromatic Hydrocarbon Solvent

**Chemical Formula :** C<sub>6</sub>H<sub>5</sub>CH<sub>3</sub> 61347 T140

**Use or Description :** Industrial Solvent

**Suppliers Name :** Hi-Tec Ink

**Street Address :** Unit 4 / 231 Annex Road , Christchurch 8053, New Zealand.

**Telephone :** +64 3 366 0100

**Facsimile :**

**Emergency Telephone :** National Poisons & Hazardous Chemicals  
Information Centre : 0800 POISON (0800 764 766)  
NZ Emergency Services : Dial 111 (if in doubt)  
Geoffrey Blakey-Scholes : Bus +64 3 666-0100  
Mobile 021 312 676

### 2. Hazards Identification

**Hazard Classification:**

3.1B - Highly flammable Liquid.  
6.1D (Oral) - Substance that is harmful if swallowed.  
6.1D (Inhalation) - Substance that is harmful if inhaled.  
6.3A - Substance that is irritating to the skin.  
6.4A - Substance that is irritating to the eye.  
6.8B - Substance that is a suspected of damaging fertility or the unborn child.  
6.9B - Substance that may cause damage to organs through prolonged or repeated exposure.  
9.1D - Substance that is toxic to aquatic environment.  
9.3C - Substance that is harmful to terrestrial vertebrates.

**Hazard statement codes:**

H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H332 Harmful if inhaled.  
H315 Causes skin irritation.  
H320 Causes eye irritation.  
H361 Suspected of damaging fertility or the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H401 Toxic to aquatic life.  
H433 Harmful to terrestrial vertebrates.

**Precautionary statement codes - prevention:**

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.

P103 Read label before use.  
P104 Read Safety Data Sheet before use.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
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/lighting equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe fume/mist/vapours.  
P264 Wash skin 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/protective clothing/eye protection/face protection.  
P281 Use personal protective equipment as required.

**Precautionary statement codes - Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 Rinse mouth.  
P331: Do NOT induce vomiting.  
P314 Get medical advice / attention if you feel unwell.  
P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P308 + P313 If exposed or concerned: Get medical advice / attention.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P303+P361+P353 IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.  
P362 Take off contaminated clothing and wash before reuse.  
P312 call a POISON CENTRE or doctor/physician if you feel unwell.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 In case of fire: Use foam, carbon dioxide or dry chemical.

**Precautionary statement codes - Storage:**

P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

**Precautionary statement codes - Disposal:**

P501 Disposal of this substance must be in accordance with the Hazardous Substances (Disposal) Regulations 2001 with reference to all local Council regulations. This may also include any method of disposal that must be avoided.

### 3. Composition / Information On Ingredients

Potentially Hazardous Ingredients	% by weight (approx)	TLV (TWA)		STEL (TWA)		Note CAS No.
		mg/m3	ppm	mg/m3	ppm	
T140 Toluol	>99	375	100			108-88-3

### 4. First Aid Measures

<b>Inhalation</b>	Remove from further exposure. If unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, use mouth to mouth resuscitation.
<b>Skin Contact</b>	Wash contact areas with soap and water. Launder contaminated clothing before use.
<b>Eye Contact</b>	Flush effected eye(s) thoroughly with water for at least 15 minutes. Seek medical attention.

**Ingestion**

Do not induce vomiting. wash mouth thoroughly with water. Get medical assistance. (Note to physician: Material if aspirated into the lungs may cause chemical pneumonitis. Treat appropriately.)

**Health Hazard :  
Information**

Advice to Doctor

ORAL: Gastrointestinal irritation, nausea, vomiting and cramping. CNS depression, ranging from mild headache to anesthesia and coma. Liver and kidney injury delayed. Effects may include anuria, dysuria, hematuria and laboratory evidence of kidney damage; hepatic tenderness, jaundice, liver enlargement and other evidence of liver damage. Pulmonary irritation secondary to exhalation of solvent.

ASPIRATION: Severe lung irritation with coughing, gagging, dyspnea, substernal distress and rapidly developing pulmonary edema. Later signs of bronchiopneumonia and pneumonitis.

**TREATMENT**

ORAL: Lavage with cuffed tube if large quantity ingested. Give activated charcoal. Observe for several days for renal or hepatic injury.

ASPIRATION: Aspiration is main danger. Enforce bed rest and observe carefully. Administer oxygen with slight positive pressure and antifoaming agent. Maintain airways and vital functions.

Prophylactic antibiotics useful.

INHALATION: Administer oxygen with slight positive pressure and antifoaming agent. Avoid sympathomimetic amines.

## 5. Fire Fighting Measures

**Extinguishing Media to be used**

☒ Foam ☒ Dry Chemical ☒ Water Spray  
☒ Carbon Dioxide ☐ Alcohol Foam ☐ Other...

**Special Fire Fighting Procedures**

Use water to keep fire exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect personnel attempting to stop leak. Water spray may be used to flush spills away from exposures. For fires in enclosed areas, Fire fighters must use self contained breathing apparatus. Prevent run off from fire control or dilution from entering streams, sewers, or drinking water supply. If contamination of sewers or waterways occurs inform the local water authorities and EPA in accordance with local regulations

**Unusual Fire and Explosion Hazards**

Under fire conditions this product may emit toxic and / or irritating fumes including carbon monoxide and carbon dioxide.

Vapour density heavier than air. Vapour accumulation could flash and / or explode if in contact with open flame.

Water or foam may cause frothing which can be violent and possibly endanger the fire fighter especially if sprayed onto containers of hot, burning liquid.

## 6. Accidental Release Measures

**Spill and Leak Procedure**

Environmental Impact: Report spills as required to appropriate authorities.

Procedures If Material Is Released Or Spilled: Extinguish or remove from all sources of ignition. Absorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal. For large spills: contain material and pump back into a holding tank for later disposal.

Waste Management: Dispose of waste by supervised incineration in compliance with applicable laws and regulations.

## 7. Handling & Storage

### Handling

Avoid prolonged repeated skin contact. Avoid contact with eyes. Avoid contact with skin. Avoid inhalation of vapours or mists.

**Use in well ventilated area away from all ignition sources.** Wear chemical-type goggles. Approved respiratory protective equipment must be used when vapour or mist concentrations exceed established Threshold Limit Values (TLV) of components. Do not use near welding or other ignition sources and avoid sparks. Do not pressurize, cut, heat or weld containers as they may contain hazardous residues. Do not smoke. It is essential that all who come in contact with this material maintain high standards of personal hygiene i.e.. washing hands prior to eating, drinking, smoking or using the toilet facilities.

### Storage

Store in a cool area. Ground and bond all transfer and storage equipment. Use non sparking tools and equipment. Drums must be grounded and bonded and equipment with self-closing valves, pressure vacuum bungs and flame arresters. Outside or detached storage preferred. Store containers in a cool area away from all ignition sources.

## 8. Exposure Control / Personal Protection

Recommended Personal Protective Equipment to be worn during use of product: (X)

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Protective Overalls | <input type="checkbox"/> Synthetic Apron                     |
| <input type="checkbox"/> Safety Glasses                 | <input checked="" type="checkbox"/> Vapour Respirator        |
| <input type="checkbox"/> Splash Goggles                 | <input checked="" type="checkbox"/> Dust & Vapour Respirator |
| <input type="checkbox"/> Face Shield                    | <input type="checkbox"/> Full Protective Suit                |
| <input type="checkbox"/> Airline Hood or Mask           | <input checked="" type="checkbox"/> Boots                    |
| <input checked="" type="checkbox"/> Gloves              | <input checked="" type="checkbox"/> Other...                 |

## 9. Physical And Chemical Properties

### Appearance and Odour

Clear,colourless,liquid with mild aromatic odour

#### Density

0.871 ASTM D1298

#### Viscosity

< 1.0

#### Vapour Pressure,mm Hg at 20°

22.0

#### Vapour Density (Air=1)

3.14

#### Melting Point/Freezing Point,°

-95

#### Aniline Point, ° (Mixed)

9 ASTM D611

#### Refractive Index, @ 20°

1.497 ASTM D1747

#### Residue On Evaporation, mg/100ml

2 ASTM D1353

#### Boiling Range,°C

110.1 to 110.9 ASTM D86

#### Flash Point° Method

7 ASTM D56, TCC

#### Evaporation Rate (BuAc=100)

240

#### % Volatile Matter (by weight)

100

#### Solubility in Water

negligible

#### Aromatics, %

>99 ASTM D875

#### Colour

5 ASTM D1209 APHA

#### pH

#### Flammability Limit, %vol

#### Lower (LEL)

1.2

#### Upper (UEL)

7.1

#### Auto Ignition Temperature, °

550

## 10. Stability And Reactivity

### Reactivity Data

Stability (thermal, light, etc.): Stable  
Conditions to Avoid: Heat, sparks, flame and build up of static electricity.  
Incompatibility (materials to avoid): Strong oxides, active metals, halogens e.g. chlorine, fluorine, acids  
Hazardous Decomposition Products: Carbon Monoxide, Carbon dioxide, fumes, smoke  
Hazardous Polymerization: Will not occur.  
Incompatible materials, Halogens, molten sulphur, strong oxidising agents.

### Hazardous Decomposition Byproducts

Carbon Monoxide, Carbon Dioxide, fumes, smoke

### Hazardous Polymerization

☒ Will Not Occur ☐ May Occur ☐ Other...

## 11. Toxicological Information

### Acute Effects of Overexposure

<b>Ingestion</b>	Harmful if swallowed. Will irritate throat and tube to stomach and may cause nausea. Small amounts of liquid aspirated into the lungs during ingestion, or from vomiting, may cause chemical pneumonitis, or pulmonary oedema which can be fatal.
<b>Skin Contact</b>	Harmful in contact with the skin. Irritating to skin. Frequent or prolonged contact with skin may cause dermatitis.
<b>Inhalation</b>	Harmful by inhalation. the inhalation of vapours will cause dizziness and drowsiness. Possibility of organ damage through prolonged or repeated exposure. Central nervous system depression symptoms include headaches, dizziness and nausea. Continuing inhalation may result in unconsciousness, coma and/or death.
<b>Eye Contact</b>	Irritant, Symptoms may include burning redness, swelling, burning sensation and/or blurred vision.
<b>Delayed Effects</b>	No carcinogenic effects or other adverse effects. Prolonged repeated skin contact with may defat the skin resulting in possible irritation and dermatitis. Inhalation may result in liver and kidney damage.
<b>Mutagenic Effects</b>	Negative in a series of assays on similar substances.
<b>Reproductive Effects</b>	Suspected of damaging fertility or the unborn child.
<b>Chronic Effects</b>	Prolonged repeated skin contact with may defat the skin resulting in possible irritation and dermatitis. Inhalation may result in liver and kidney damage.

## 12. Ecological Information

<b>Ecotoxicity</b>	No data is available for this material
<b>Persistence / Degradability</b>	Not Available
<b>Mobility</b>	Not Available

## 13. Disposal Considerations

### Disposal Methods

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain fumes and vapours that are flammable and harmful. Ensure that empty packaging is allowed to dry.

### Special Precautions for Landfill or Incineration.

This product is NOT suitable for disposal by either land fill or via municipal sewers, drains, natural stream or rivers. This product is ashless and can be burned directly in appropriate equipment.

## 14. Transport Information

IMCO No.	3.2	This material is classified as a class 3- Flammable Liquid according to NZS 5433:1999 Transport of Dangerous Goods on Land.
UN No.	1294	Must not be loaded in the same freight container or on the same vehicle with;
HAZCHEM	3[Y]E	(Class 1) Explosives, (Class 2.1) Flammable gasses, (Class 2.3) Toxis gasses, (Class 4.2) Spontaneous combustible substances, (Class 5.1) Oxidising
D/Goods Class	3	substances, (Class 5.2) Organic peroxide , (Class 7) Radioactive materials unless specifically exempted, (Class 4.3) Dangerous when wet substances.
UN Packing Group	II	

## 15. Regulatory Information

### **National and or International Regulatory Information.**

Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum degree of Hazard) Regulations 2001.

Group Standard:

Additives, Process Chemicals and Raw Materials (Flammable) Group Standard 2006

### **Hazardous Category.**

Harmful, Irritant

## 16. Other Information

### Other Data.

IF PRINTED THIS MSDS SHEET IS UNCONTROLLED.

**Hi - Tec Ink** urges each customer or recipient of this MSDS to study it carefully to become aware of and the hazards associated with the product.

The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS. To promote safe

handling, each customer or recipient should:

- (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards of safety;
- (2) furnish this same information to each of its customers for the product; and
- (3) request its customers to notify their employees, customers, and other users of the product of this information.

**NOTE:** The information and recommendations contained in this data sheet have been compiled from sources believed to be reliable and represent the best current opinion on the subject. No warranty, guarantee or representation is made by the company as to the absolute correctness or sufficiency of any representation contained in this data sheet and the company assumes no responsibility in connection therewith. Nor can it be assumed that all acceptable safety measures are contained in this data sheet or that other additional measures may not be required under particular or exceptional circumstances or conditions.