

### Description

The 9680 *Toluene* is a medium evaporation solvent with high solvent strength that is widely used in the paint, chemical, and pharmaceutical industries. In the chemical industry and laboratories, toluene is commonly used as a starting material for chemical synthesis of various organic compounds, in paints and lacquers, and an additive and gasoline.

### Benefits and Features

- **Moderate evaporation rate**  
**Highly miscible with other common organic solvents**

**ATTENTION!**  
**INDUSTRIAL OR LABORATORY USE ONLY**  
NOT FOR RETAIL SALE

### Principal Components

Name	CAS Number
Toluene	108-88-3

### Storage Parameters

<i>Properties</i>	<i>Value</i>
Shelf Life @22 °C [72 °F]	5 y
Storage Temperature <sup>a)</sup>	-20 to 40 °C [-4 to 104 °F]

a) Storage below zero is not necessary. Cool, dry, and well ventilated area is recommended.

### Properties

<i>Physical Property</i>	<i>Method</i>	<i>Value</i>
Color	Visual	Clear
Odor		Aromatic
Density @25 °C [77 °F]		0.87 g/mL
Viscosity @25 °C [77 °F]		0.56 mm <sup>2</sup> /s
Flash Point	Closed cup	4 °C [39 °F]
Boiling Point		110 °C [230 °F]
Vapor Pressure @25 °C [77 °F]		30 hPa [22.5 mmHg]
Relative Evaporation Rate		2.2 (ButAc = 1)
Volatile Organic Compound (VOC)		100% [870 g/mL]
MIR value		3.88

<i>Solubility Parameters</i>		<i>Value</i>	
Hansen Solubility Parameters <sup>a)</sup>	Total	cal/cm <sup>3/2</sup>	MPa <sup>1/2</sup>
	<i>Non-Polar</i>	18.2	8.9
	<i>Polar</i>	18	8.8
	<i>Polar</i>	1.4	0.7
	<i>Hydrogen Bonding</i>	2.1	1.0

a) Hansen parameters calculate using component literature values and volume fraction composition.

## Compatibility

**Substrate Compatibility:** The 9680 *Toluene* is compatible with most substrate materials found on printed circuit assemblies.

**Solvent Miscibility:** The 9680 is highly miscible with other common organic solvent. It can be mixed with

- Alcohols
- Aldehydes
- Aromatic and Aliphatic Hydrocarbons
- Ethers
- Glycols
- Glycol Ethers
- Ketones

## Health, Safety, and Environmental Awareness

Please see the 9680 **Safety Data Sheet** (SDS) for more details on transportation, storage, handling and other security guidelines.

**Environmental Impact:** The 9680 has volatile organic content of 100% [870 g/L]. It is RoHS compliant.

### Health and Safety:



**WARNING**

#### **CALIFORNIA PROPOSITION 65**

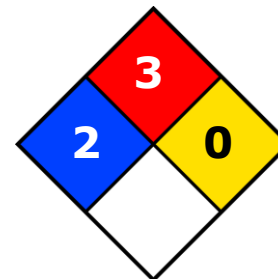
This product can expose you to chemicals including toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

This liquid is flammable and should be kept away from flames and other ignition sources. Avoid breathing in fumes or direct contact with the material.

### HMIS® RATING

<b>HEALTH:</b>	<b>* 2</b>
<b>FLAMMABILITY:</b>	<b>3</b>
<b>PHYSICAL HAZARD:</b>	<b>0</b>
<b>PERSONAL PROTECTION:</b>	

### NFPA® 704 CODES



*Approximate HMIS and NFPA Risk Ratings Legend:*

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

### Packaging and Supporting Products

<i>Cat. No.</i>	<i>Packaging</i>	<i>Net Volume</i>		<i>Net Weight</i>		<i>Packaging Weight</i>
<b>9680-945ML</b>	Can	945 mL	31.9 fl oz	822 g	1.81 lb	TBD
<b>9680-3.78L</b>	Can	3.78 L	1 gal	3.29 kg	7.25 lb	"

*Contact MG Chemicals if custom packaging or sizes are required*

TBD = To be determined

### Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at [www.mgchemicals.com](http://www.mgchemicals.com).

Email: [support@mgchemicals.com](mailto:support@mgchemicals.com)

Phone: +(1) 800-340-0772 (Canada, Mexico & USA)  
+(1) 905-331-1396 (International)

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L7L 5R6

**Head Office**  
9347-193rd Street  
Surrey, British Columbia, Canada  
V4N 4E7

### Warranty

*M.G. Chemicals Ltd.* warrants this product for 12 months from the date of purchase by the end user. *M.G. Chemicals Ltd.* makes no claims as to shelf life of this product for the warranty. The liability of *M.G. Chemicals Ltd.* whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.



ISO 9001 Registered Quality System.  
Burlington, Ontario, Canada QMI File # 004008

# Toluene

## 9680 Technical Data Sheet

9680

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### Disclaimer

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. *M.G. Chemicals Ltd.* does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.