

**MSDS****Material Safety Data Sheet**24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300National Response in Canada  
CANUTEC: 613-996-6666Outside U.S. and Canada  
Chemtrec: 703-527-3887**NOTE:** CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# MESITYLENE

MSDS Number: M1664 --- Effective Date: 11/17/99

## 1. Product Identification

**Synonyms:** Benzene, 1,3,5-trimethyl; mesitylene 99+%; trimethylbenzol**CAS No.:** 108-67-8**Molecular Weight:** 120.20**Chemical Formula:** C<sub>9</sub>H<sub>12</sub>

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Benzene, 1,3,5-trimethyl-	108-67-8	90 - 100%	Yes

## 3. Hazards Identification

### Emergency Overview

**DANGER! HARMFUL OR FATAL IF SWALLOWED. FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS THE BLOOD AND CENTRAL NERVOUS SYSTEM.**

### Potential Health Effects

#### Inhalation:

Inhalation of vapors irritates the respiratory tract. May cause sore throat, coughing, headache and nausea. Affects central nervous system.

**Ingestion:**

Not expected to be very acutely toxic. Care should be taken due to potential irritant effects. May cause risk of chemical pneumonia from droplets entering lungs. Affects central nervous system.

**Skin Contact:**

Causes irritation to skin. Symptoms include redness, itching, and pain.

**Eye Contact:**

Liquid and vapor causes irritation, redness, and pain.

**Chronic Exposure:**

Repeated inhalation may cause chronic bronchitis of the asthmatic type. High concentrations of vapors causes blood effects.

**Aggravation of Pre-existing Conditions:**

No information found.

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## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:**

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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## 5. Fire Fighting Measures

**Fire:**

Flash point: 50C (122F)

Autoignition temperature: 559C (1038F)

Flammable liquid and vapor.

Contact with strong oxidizers may cause fire.

**Explosion:**

Above the flash point, explosive vapor-air mixtures may be formed. Sensitive to static discharge.

**Fire Extinguishing Media:**

Water spray, dry chemical, alcohol foam, or carbon dioxide. Water may be ineffective.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Vapors can flow along surfaces to distant ignition source and flash back. Water spray may be used to keep fire exposed containers cool.

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## 6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste

container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

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## 7. Handling and Storage

Protect against physical damage. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Storage and use areas should be No Smoking areas. Control ignition sources. Employ grounding, bonding, venting and explosion relief provisions in accord with accepted engineering practices in any process capable of generating an explosion due to static discharge. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

- ACGIH Threshold Limit Value (TLV): 25 ppm, 123 mg/m<sup>3</sup> (TWA)

- NIOSH (REL): 25 ppm; 125 mg/m<sup>3</sup> (TWA)

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded, a half-face organic vapor respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece organic vapor respirator may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### **Eye Protection:**

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area. Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible.

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## 9. Physical and Chemical Properties

### **Appearance:**

Clear, colorless liquid.

### **Odor:**

Characteristic odor.

### **Solubility:**

Negligible; 0.002% in water.

### **Specific Gravity:**

0.864 @ 20C/4C

### **pH:**

No information found.

### **% Volatiles by volume @ 21C (70F):**

99

**Boiling Point:**

165C (329F)

**Melting Point:**

-45C (-49F)

**Vapor Density (Air=1):**

1.006 @ 20C

**Vapor Pressure (mm Hg):**

1.86 @ 20C (68F)

**Evaporation Rate (BuAc=1):**

No information found.

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Nitric Acid, strong oxidizers.

**Conditions to Avoid:**

Heat, flames, ignition sources and incompatibles.

## 11. Toxicological Information

Inhalation rat LC50: 24 mg/m<sup>3</sup>/4H

Irritation: rabbit skin (std Draize), 20 mg/24 H, moderate

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Benzene, 1,3,5-trimethyl- (108-67-8)	No	No	None

## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

### Domestic (Land, D.O.T.)

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**Proper Shipping Name:** 1,3,5-TRIMETHYLBENZENE

**Hazard Class:** 3

**UN/NA:** UN2325

**Packing Group:** III

**Information reported for product/size:** 500ML

### International (Water, I.M.O.)

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**Proper Shipping Name:** 1,3,5-TRIMETHYLBENZENE

**Hazard Class:** 3.3

**UN/NA:** UN2325

**Packing Group:** III

**Information reported for product/size:** 500ML

### International (Air, I.C.A.O.)

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**Proper Shipping Name:** 1,3,5-TRIMETHYLBENZENE

**Hazard Class:** 3.3

**UN/NA:** UN2325

**Packing Group:** III

**Information reported for product/size:** 500ML

## 15. Regulatory Information

```
-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA   EC     Japan  Australia
-----
Benzene, 1,3,5-trimethyl- (108-67-8)         Yes   Yes   Yes     Yes
```

```
-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     Korea  --Canada--  DSL  NDSL  Phil.
-----
Benzene, 1,3,5-trimethyl- (108-67-8)         Yes   Yes   No     Yes
```

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-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                     -SARA 302-   -SARA 313-
RQ   TPQ   List  Chemical Catg.
-----
```

MESITYLENE

Benzene, 1,3,5-trimethyl- (108-67-8) No No No No

-----\Federal, State & International Regulations - Part 2\-----

Ingredient	CERCLA	-RCRA-	-TSCA-
Benzene, 1,3,5-trimethyl- (108-67-8)	No	261.33	8(d)

-----  
Benzene, 1,3,5-trimethyl- (108-67-8) No No No

Chemical Weapons Convention: No TSCA 12(b): Yes CDTA: Yes  
SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No  
Reactivity: No (Pure / Liquid)

**Australian Hazchem Code:** 3[Y]

**Poison Schedule:** No information found.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 1 Flammability: 2 Reactivity: 0

**Label Hazard Warning:**

DANGER! HARMFUL OR FATAL IF SWALLOWED. FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS THE BLOOD AND CENTRAL NERVOUS SYSTEM.

**Label Precautions:**

Keep away from heat, sparks and flame.

Keep container closed.

Use only with adequate ventilation.

Avoid contact with eyes, skin and clothing.

Avoid breathing vapor or mist.

Wash thoroughly after handling.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No changes.

**Disclaimer:**

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