

**JM TPO LVOC Cut Edge Sealant – Clear**

Version 1.0

Revision Date 04/18/2017

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**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Trade name : JM TPO LVOC Cut Edge Sealant – Clear

## Manufacturer or supplier's details

Company : Johns Manville  
Address : P.O. Box 5108  
Denver, CO USA 80127  
Telephone : +1 303-978-2000 8:00AM-5:00PM M-F  
Emergency telephone : 1-800-424-9300 (Chemtrec, in English)  
number

## Recommended use of the chemical and restrictions on use

Recommended use : Sealant

Prepared by : productsafety@jm.com

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Flammable liquids : Category 2  
Skin irritation : Category 2  
Eye irritation : Category 2A  
Reproductive toxicity : Category 2  
Specific target organ toxicity - single exposure : Category 3 (Respiratory system, Central nervous system)  
Specific target organ toxicity - repeated exposure : Category 2  
Aspiration hazard : Category 1

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory 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

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repeated exposure.

Precautionary statements

:

**Prevention:**

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 dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
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.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P331 Do NOT induce vomiting.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P235 Keep cool.  
P405 Store locked up.

**Disposal:**

P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

**Other hazards**

None known.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous components**

Chemical name	CAS-No.	Concentration (%)
Benzene, 1-chloro-4-(trifluoromethyl)-	98-56-6	>= 66 - <= 71
toluene	108-88-3	>= 6 - <= 8

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Remove to fresh air immediately. Get medical attention immediately.  
Keep patient warm and at rest.  
If breathing has stopped, apply artificial respiration.
- In case of skin contact : In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Get medical attention immediately if irritation develops and persists.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Keep eye wide open while rinsing.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.
- If swallowed : If swallowed, call a poison control centre or doctor immediately.  
Do NOT induce vomiting.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : None known.
- Notes to physician : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing : High volume water jet

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- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides
- Further information : Standard procedure for chemical fires.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
Use a water spray to cool fully closed containers.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).  
Non-sparking tools should be used.  
Ventilate the area.

**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
- Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Take precautionary measures against static discharges.

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Provide sufficient air exchange and/or exhaust in work rooms.  
 Open drum carefully as content may be under pressure.  
 Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : No smoking.  
 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.  
 Observe label precautions.  
 Electrical installations / working materials must comply with the technological safety standards.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
toluene	108-88-3	TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m <sup>3</sup>	NIOSH REL
		ST	150 ppm 560 mg/m <sup>3</sup>	NIOSH REL
		TWA	200 ppm	OSHA
		CEIL	300 ppm	OSHA
		Peak	500 ppm (10 minutes)	OSHA
		TWA	100 ppm 375 mg/m <sup>3</sup>	OSHA
		STEL	150 ppm 560 mg/m <sup>3</sup>	OSHA

**Engineering measures** : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

#### Personal protective equipment

**Respiratory protection** : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

**Hand protection**  
**Material** : Solvent-resistant gloves

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Remarks	: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Eye protection	: Tightly fitting safety goggles Safety glasses with side-shields Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. Written instructions for handling must be available at the work place.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: liquid
Colour	: colourless
Odour	: pleasant, acetone-like
Odour Threshold	: No data available
pH	: No data available
Melting point/range	: not determined
Boiling point/boiling range	: 139 °C
Flash point	: 4 °C
Evaporation rate	: 2
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: 10.5 %(V)
Lower explosion limit	: 0.9 %(V)
Vapour pressure	: 40 hPa (20 °C)
Relative vapour density	: No data available
Relative density	: No data available

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Density	: 1.20 g/cm <sup>3</sup> (20 °C)
Bulk density	: 1,201 kg/m <sup>3</sup>
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Oxidizing agents Strong acids Amines Ammonia Copper Copper alloys Halogenated compounds
Hazardous decomposition products	: Carbon oxides Chlorine compounds Fluorine compounds

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Product:**

Acute dermal toxicity : Acute toxicity estimate : 3,623 mg/kg  
Method: Calculation method

**Acute toxicity**

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**Components:****Benzene, 1-chloro-4-(trifluoromethyl)-:**

Acute oral toxicity : LD50 (Rat): 6,800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 33 mg/l  
Exposure time: 4 h

LC50 (Rat): &gt; 4479 ppm

Acute dermal toxicity : LD50 (Rabbit): &gt; 2,700 mg/kg

**Acute toxicity****toluene:**

Acute oral toxicity : LD50 Oral (Rat, male): 5,580 mg/kg

Acute inhalation toxicity : LC50 (Rat): 28.1 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): &gt; 12,267 mg/kg

**Skin corrosion/irritation****Product:**

Remarks: Causes skin irritation.

**Skin corrosion/irritation****Components:****Benzene, 1-chloro-4-(trifluoromethyl)-:**

Species: Rabbit

Result: No skin irritation

**Skin corrosion/irritation****toluene:**

Species: Rabbit

Result: Irritating to skin.

**Serious eye damage/eye irritation****Product:**

Remarks: Causes serious eye irritation.

**Serious eye damage/eye irritation****Components:****Benzene, 1-chloro-4-(trifluoromethyl)-:**

Species: Rabbit

Result: No eye irritation

**Serious eye damage/eye irritation****toluene:**

Species: Rabbit



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Result: Mild eye irritation  
Exposure time: 24 h

**Respiratory or skin sensitisation****Components:****Benzene, 1-chloro-4-(trifluoromethyl)-:**

Exposure routes: Skin contact

Species: Mouse

Method: OECD Test Guideline 429

Result: May cause sensitisation by skin contact.

**IARC**

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.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity****Components:****toluene:**

Reproductive toxicity -  
Assessment

: Suspected of damaging the unborn child., Some evidence of adverse effects on development, based on animal experiments.

**STOT - single exposure****Product:**

Assessment: May cause drowsiness or dizziness.

**STOT - single exposure****Components:****toluene:**

Assessment: May cause drowsiness or dizziness.

**STOT - repeated exposure****Product:**

Assessment: May cause damage to organs through prolonged or repeated exposure.

**STOT - repeated exposure****Components:****toluene:**

Assessment: May cause damage to organs through prolonged or repeated exposure.

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**Aspiration toxicity****Product:**

May be harmful if swallowed and enters airways.

**Components:****toluene:**

May be fatal if swallowed and enters airways.

**Experience with human exposure****Components:****toluene:**

Skin contact:

Remarks:

Prolonged skin contact may defat the skin and produce dermatitis.

**Further information****Product:**

Remarks: Solvents may degrease the skin.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential****Components:****Benzene, 1-chloro-4-(trifluoromethyl)-:**Partition coefficient: n- : log Pow: 3.7 (25 °C)  
octanol/water**toluene:**Partition coefficient: n- : Pow: 2.7  
octanol/water**Mobility in soil**

No data available

**Other adverse effects****Product:**Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82  
Protection of Stratospheric Ozone - CAA Section 602 Class I  
Substances

Remarks: This product neither contains, nor was

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manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Disposal of residual product : Do not dispose of waste into sewer.  
 Do not contaminate ponds, waterways or ditches with chemical or used container.  
 Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
 Dispose of as unused product.  
 Do not re-use empty containers.  
 Do not burn, or use a cutting torch on, the empty drum.

### SECTION 14. TRANSPORT INFORMATION

#### International transport regulations

US DOT: UN 1133, Adhesives, 3, II.

LIMITED QUANTITY if shipped in packages less than or equal to 0.3 gallons (1.0 liters).

### SECTION 15. REGULATORY INFORMATION

#### TSCA list

TSCA - 5(a) Significant New Use Rule List of Chemicals : No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D) : The following substance(s) is/are subject to TSCA 12(b) export notification requirements:  
 Benzene, 1-chloro-4-(trifluoromethyl)-

#### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
toluene	108-88-3	1000	*
toluene	108-88-3	100	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

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This material does not contain any components with a section 304 EHS RQ.

- SARA 311/312 Hazards** : Fire Hazard  
 Acute Health Hazard  
 Chronic Health Hazard
- SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:
- |         |          |
|---------|----------|
| toluene | 108-88-3 |
|---------|----------|

### Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

toluene	108-88-3	8 %
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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

toluene	108-88-3	8 %
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### Massachusetts Right To Know

toluene	108-88-3
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### Pennsylvania Right To Know

Benzene, 1-chloro-4-(trifluoromethyl)-Hydrocarbons, C6-20, polymers, hydrogenated	98-56-6 69430-35-9
toluene	108-88-3
Benzene, ethenyl-, polymer with 1,3-butadiene, hydrogenated	66070-58-4
benzene, ethenyl-, polymer with 2-methyl-1,3-butadiene, hydrogenated	68648-89-5
Benzene, ethenyl-, polymer with (1-methylethenyl)benzene	9011-11-4

### New Jersey Right To Know

Benzene, 1-chloro-4-(trifluoromethyl)-Hydrocarbons, C6-20, polymers, hydrogenated	98-56-6 69430-35-9
toluene	108-88-3
Benzene, ethenyl-, polymer with 1,3-butadiene, hydrogenated	66070-58-4
benzene, ethenyl-, polymer with 2-methyl-1,3-butadiene, hydrogenated	68648-89-5

### California Prop 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

toluene	108-88-3
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### The components of this product are reported in the following inventories:

TSCA : On the inventory, or in compliance with the inventory

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DSL : On the inventory, or in compliance with the inventory

**SECTION 16. OTHER INFORMATION****Further information**

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.