

# MATERIAL SAFETY DATA SHEET

L&M CONSTRUCTION CHEMICALS, INC.  
14851 CALHOUN ROAD  
OMAHA, NE 68152

MSDS NO: 263

ASSISTANCE (CHEMTREC) 800 424-9300  
EMERGENCY PHONE NO. 402 453-6600

3/8/2011

## 1- COMMERCIAL NAME : Joint Tite 750 Polyol

*Do not handle this material until the manufacturer's safety precautions have been read and understood! Regulations require that all employees be educated & trained on the Material Safety Data Sheets for all products with which they come in contact.*

## 2- COMPOSITION/INFORMATION ON INGREDIENTS :

CHEMICAL NAME	C.A.S.	QTY%	OSHA PEL	ACGIH TLV
Tetrahydroxypropylethylenediamine	102-60-3	15-25	N/A	N/A
Aspartic Ester	Proprietary	1-10	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

## 3- HAZARDS IDENTIFICATION :

### POTENTIAL HEALTH HAZARD

**Eye:** May cause moderate eye irritation; tearing and swelling may occur.

**Skin:** Prolonged exposure may cause slight irritation; may cause skin sensitization. Avoid prolonged contact.

**Ingestion:** May be harmful if swallowed. Abdominal discomfort, nausea, and/or diarrhea may occur.

**Inhalation:** May be harmful if inhaled; may cause irritation to the respiratory tract and cause headache, nausea and/or drowsiness. Avoid inhalation!

**Target Organ:** Kidney

## 4- FIRST AID MEASURES :

- **Change any soiled clothing immediately.**

- **In case of eye contact :** Open eyelids as far as possible and flush with large quantities of water for at least fifteen minutes. Seek immediate medical attention if irritation occurs, preferably an eye specialist.

- **In case of skin contact :** Physically remove the product and wash skin thoroughly with soap and water. Consult a physician if skin irritation occurs. Remove all contaminated clothing.

- **In case of swallowing :** DO NOT induce vomiting and seek immediate medical attention.

- **In case of inhalation :** Remove the patient from the contaminated area. Consult physician if after-effects occur.

## 5- FIRE-FIGHTING MEASURES :

### 5-1 Fire-extinguisher types :

- Product is combustible!

- Use : chemical foam, CO<sub>2</sub>, powder. Where the fire is of major proportions, water spray may also be used.

### 5-2 Specific fire and explosion risks :

Incomplete combustion or pyrolysis mainly produces toxic gases and oxides of carbon and water. Closed containers may explode when exposed to extreme heat or burst when contaminated with water.

### 5-3 Specific protective measures during firefighting :

Firefighting personnel should be equipped with insulated, autonomous respiratory protection equipment.

**COMMERCIAL NAME : Joint Tite 750 Polyol****6- ACCIDENTAL RELEASE MEASURES :****6-1 Individual protection :**

Wearing of suitable protective clothing and protective equipment for face/eyes. Provide mechanical ventilation and remove personnel from area.

**6-2 Environmental protection :** Please see § 12

**6-3 Decontamination procedures :**

- Contain spilt material in order to avoid its transfer to sewers or rivers and streams.
- Physically remove the material.
- Cover with an absorbent substance or inert material: remove for proper disposal.

**7- HANDLING AND STORAGE :****7-1 Handling :**

- Inform personnel of risks associated with the product, the precautions to be taken and procedures to follow where an accident occurs.
- Observe personal hygiene rules to avoid contact with eyes and skin.
- Avoid inhaling vapors produced by the material, **especially when heated and/or sprayed.**
- Install showers and eye baths ("fountain" type).
- Ensure sufficient ventilation, including appropriate local air extraction, in order to comply with workplace exposure limits. **Avoid dusts created during machining.**
- Wash hands thoroughly at beginning of every work break and at the end of the working day.
- Work stations and the general working area must be kept perfectly clean.

**7-2 Storage :**

- Keep the material hermetically sealed in its original packaging, protected from humidity and at a temperature between 59 and 77°F / 15 and 25°C in a well-ventilated storage facility.
- Ensure that the floor of the storage area is impermeable and concave in profile in order to provide effective containment.
- Keep the product away from food.
- Reproduce labeling on all new packs where original packaging is divided.

**8- EXPOSURE CONTROLS/PERSONAL PROTECTION :**

**8-1 Exposure controls :** Use adequate ventilation to keep airborne concentrations low. Always maintain workplace air contaminants to a minimum. Use process enclosure or exhaust to control vapors/mists.

**8-2 Personal protection :**

- respiratory protection : A respiratory program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 if exposures are above the Permissible Exposure Limits (PEL).
- eye protection : YES, chemical safety goggles, and full face shield
- skin protection : YES, impervious protective gloves, such as nitrile, latex or rubber; coveralls, and boots.

**COMMERCIAL NAME : Joint Tite 750 Polyol****9- PHYSICAL AND CHEMICAL PROPERTIES :**

**Physical state :** liquid

**Color :** gray

**Odor :** typical

**pH :** not established

**Flash point :** > 260°F / >126°C

**Decomposition temperature :** > 392°F / 200°C

**Specific gravity :** 1.03

**Solubility :** in water (at 68°F / 20°C) nil

**10- STABILITY AND REACTIVITY :****10-1 Dangerous decomposition by-products :**

- Carbon Monoxide & Carbon Dioxide - otherwise product is stable.

**10-2 Hazardous reactions with :**

- Oxidizers. Avoid contact with strong acids; avoid unintended contact with isocyanates. Avoid moisture.

**11- TOXICOLOGICAL INFORMATION :**

**Effects on eyes :** may cause slight temporary irritation.

**Effects on skin :** repeated or prolonged single exposure may cause irritation to the skin. May cause a cutaneous allergic reaction in predisposed individuals. It appears unlikely that any danger is attached to absorption of quantities of the product through the skin following prolonged single exposure.

**Tetrahydroxypropylethylenediamine: LD50 (rabbit): >2,000 mg/kg**

**Effects of inhalation :** may be irritating to the respiratory tract; otherwise no foreseeable harmful effects.

**Effects on ingestion :** harmful if swallowed. Low toxicity for a single oral dose.

**Tetrahydroxypropylethylenediamine: LD50 (rat): 3,280 mg/kg;**

**Aspartic Ester: LD50 (rat): >2,000 mg/kg**

**12- ECOLOGICAL INFORMATION :**

Based on data for one or more similar products :

Ecotoxicity : not established

Biodegradability : not established

**13- DISPOSAL CONSIDERATIONS :**

All disposal methods must be in compliance with all Federal, State/Provincial and local regulations. Regulations may vary in different locations. Waste characteristics and compliance with applicable laws are the responsibility solely of the waste generator.

For unused & uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device.

**COMMERCIAL NAME : Joint Tite 750 Polyol****14- TRANSPORT INFORMATION :****DOT Regulations/Information:****Proper Shipping Name:** Not Regulated**Hazard Class:** N/A**UN/NA Number:** N/A**Packaging Group:** N/A**Internal label:** H0002000**15- REGULATORY INFORMATION :****US Federal Regulation**Toxic Substances Control Act (TSCA):

All components are included in the EPA Toxic Substances Control Act Chemical Substance Inventory.

OSHA Hazard Communication Standard hazard classes: Acute, Chronic - irritant.

Hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.OSHA PEL/TWA : none established for materials in this productACGIH PEL/TWA: none established for materials in this productSec. 313 Chemicals : none**16- OTHER INFORMATION :****HMIS Ratings:****Health. Flammability. Reactivity****1.1.0.**

Ratings Key: 4 = Highest hazard, 0 = Lowest hazard, \* = Chronic Health Hazard

REVEALING MODIFICATION : DBP1.1.PDF

Revised : 6/24/2010 Supersedes sheet : 2/22/2010 This sheet provides a complement to the product use instructions but does not replace them. The information it contains is based on our current knowledge of the product concerned at the date of drafting. That information is given in good faith and does not in any circumstances remove from the user his duty to be aware of and to follow all legal regulations and statutes covering his activities. The user takes sole responsibility for application of safety measures covering the use of the product he is aware of. We also draw the user's attention to the risks attached to any use of the product for applications for which it was not designed. 07/2010 Form GbP1.1PDF New Logo

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MSDS NO: 264

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3/8/2011

## 1- COMMERCIAL NAME : Joint Tite 750 Iso

*Do not handle this material until the manufacturer's safety precautions have been read and understood! Regulations require that all employees be educated & trained on the Material Safety Data Sheets for all products with which they come in contact.*

## 2- COMPOSITION/INFORMATION ON INGREDIENTS :

CHEMICAL NAME	C.A.S	QTY%	OSHA PEL	ACGIH TLV
Polymeric Diphenylmethane-4,4'-diisocyanate	9016-87-9	20-30	0.20 mg/m <sup>3</sup> ceiling	0.05 mg/m <sup>3</sup>
4,4'Diphenylmethane Diisocyanate	101-68-8	15-20	0.20 mg/m <sup>3</sup> ceiling	0.05 mg/m <sup>3</sup>
Propylene Carbonate	108-32-7	5-15	N/A	N/A

## 3- HAZARDS IDENTIFICATION :

- Harmful by inhalation; possible risk of occupational asthma (isocyanates have low odor warning properties!)
- Irritating to eyes, respiratory system, and skin.
- May cause sensitization by inhalation and skin contact.

***A health surveillance/monitoring program is recommended when working with isocyanates!***

## 4- FIRST AID MEASURES :

- ***Where a serious accident occurs, seek medical advice immediately.***
- ***Remove and Change any soiled clothing immediately.***
- ***In case of eye contact :*** open eyelids as far as possible and flush with large quantities of water for at least fifteen minutes. Seek immediate medical attention.
- ***In case of skin contact :*** physically remove the product and wash skin thoroughly with soap and water. Consult a physician if skin irritation occurs.
- ***In case of swallowing :*** **DO NOT** induce vomiting and seek immediate medical attention!
- ***In case of inhalation :*** remove the patient from the contaminated area. Consult physician if after-effects occur.

***If large amount of product has been inhaled in aerosol or vapor form, seek medical advice immediately, since delayed pulmonary edema may occur.***

## 5- FIRE-FIGHTING MEASURES :

### 5-1 Fire-extinguisher types :

- Use : chemical foam, CO<sub>2</sub>, powder. Where the fire is of major proportions, water spray may also be used.

### 5-2 Specific fire and explosion risks :

Incomplete combustion or pyrolysis mainly produces oxides of carbon & nitrogen, isocyanate fumes, and traces of hydrogen cyanide. Closed containers may explode when exposed to extreme heat or burst when contaminated with water. Contain fire-fighting runoff.

### 5-3 specific protective measures during firefighting :

Firefighting personnel should be equipped with insulated, autonomous respiratory protection equipment.

**COMMERCIAL NAME : Joint Tite 750 Iso****6- ACCIDENTAL RELEASE MEASURES :****6-1 Individual protection :**

Wearing of suitable protective clothing and protective equipment for face/eyes; wear suitable respiratory equipment if ventilation is insufficient. Evacuate personnel to safe area.

**6-2 Environmental protection :** Please see § 12

**6-3 Decontamination procedures :**

- Contain spilt material in order to avoid its transfer to sewers or rivers and streams.
- Physically remove the material.
- Neutralize the product using a decontaminating agent (ethanol/water/concentrated ammonia - 50/45/5) or copious amounts of water.
- Cover over using an absorbent substance (e.g. sand, sawdust). After one hour, transfer to suitable drum containers. Do not close (likelihood of CO<sub>2</sub> production). Cover tops only.
- Leave open to air in a supervised area for 7 to 14 days before being removed for disposal.

**7- HANDLING AND STORAGE :****7-1 Handling :**

- Inform personnel of risks associated with the product, the precautions to be taken and procedures to follow where an accident occurs. ***Isocyanates have poor odor warning properties - use caution!***
- Observe personal hygiene rules to avoid contact with eyes and skin.
- Avoid inhaling vapors produced by the material, **especially when heated and/or sprayed.**
- Install showers and eye baths ("fountain" type).
- Ensure sufficient ventilation, including appropriate local air extraction, in order to comply with workplace exposure limits. ***Avoid the build-up of dust created during machining - wear a face mask.***
- Wash hands thoroughly at beginning of every work break and at the end of the working day.
- Work stations and the general working area must be kept perfectly clean.
- Avoid exposure to the product of persons having suffered from eczema or still suffering from any skin condition, wound, cut or irritation.

**7-2 Storage :**

- Keep the material hermetically sealed in its original packaging, protected from humidity and at a temperature between 59 and 77°F / 15 and 25°C in a well-ventilated storage facility.
- Ensure that the floor of the storage area is impermeable and concave in profile in order to provide effective containment.
- Keep the product away from food.
- Reproduce labeling on all new packs where original packaging is divided.

**8- EXPOSURE CONTROLS/PERSONAL PROTECTION :**

**8-1 Exposure controls :** Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations. Always maintain workplace air contaminants to a minimum.

**8-2 Personal protection :**

- respiratory protection : NIOSH approved respirator for poorly ventilated areas or where product is being heated and/or sprayed. See section 15 for exposure limits. Dust mask during machining.
- eye protection : YES, safety glasses with side-shields; chemical-splash goggles and full face shield.
- skin protection : YES, protective gloves, such as nitrile, butyl rubber, or neoprene.

**COMMERCIAL NAME : Joint Tite 750 Iso****9- PHYSICAL AND CHEMICAL PROPERTIES :**

**Physical state :** liquid

**Color :** transparent amber

**Odor :** characteristic/slight

**pH :** not established

**Flash point :** > 230°F / 110°C

**Decomposition temperature :** > 392°F / 200°C

**Specific gravity :** 1.14

**VOC (%) :** 0

**VOC (g/l) :** 0

**Solubility :** in water - at 68°F / 20°C : insoluble; slowly reacts with water to liberate CO<sub>2</sub>.  
in solvents : Yes (soluble in many organic solvents)

**10- STABILITY AND REACTIVITY :****10-1 Dangerous decomposition by-products :**

- These are non-existent if storage and handling rules are followed (please see also § 5-2).

**10-2 Hazardous reactions with :**

- Exothermic reaction may occur; contact with moisture or other materials which react with isocyanates (acids, alcohols, bases such as soda, ammonia, or amines) or temperature above 400°F may cause polymerization.

- Hazardous polymerization may occur at elevated temperatures in the presence of alkalis, tertiary amines and metal compounds. Avoid unintended contact with Polyols - as this creates an exothermic reaction.

**11- TOXICOLOGICAL INFORMATION :**

**Effects on inhalation:** Potential respiratory sensitizer

**Effects on eyes:** aerosol, vapor, or liquid irritate human eyes following contact.

**Effects on skin:** irritates and darkens skin, although systemic toxicity is considered low. Skin sensitization is unlikely unless exposure is repeated or prolonged.

**Effects on ingestion :** low toxicity for a single oral dose; irritant. **LD50 (rat): >5g/kg**

**Over-Exposure :** (*especially where spraying is carried out without safety precautions*) - a concentration dependent irritation to eyes, nose, throat, and respiratory tract. Delayed occurrence of nausea and allergic reactions (respiratory difficulty, cough, asthma) is possible. In predisposed individuals, these symptoms may appear after exposure to minimal concentrations of isocyanates, even where this value is below threshold limits. There are reports that excessive chronic exposures to isocyanates may result in permanent decrease in lung function.

**12- ECOLOGICAL INFORMATION :**

This product is not miscible in water. It acts on water, producing CO<sub>2</sub> and polyurea (a solid, non-fusible, and insoluble compound) which is, to the best of our knowledge, inert and non-biodegradable.

**13- DISPOSAL CONSIDERATIONS :**

All disposal methods must be in compliance with all Federal, State/Provincial and local regulations. Regulations may vary in different locations. Waste characteristics and compliance with applicable laws are the responsibility solely of the waste generator. Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed (see § 6.3).

**COMMERCIAL NAME : Joint Tite 750 Iso****14- TRANSPORT INFORMATION :****DOT Regulations/Information:****Proper Shipping Name:** NOT REGULATED (for single containers less than 5,000 lbs.)**Hazard Class:** N/A**UN/NA Number:** N/A**Packaging Group:** N/A**Internal label:** H0082200**15- REGULATORY INFORMATION :****US Federal Regulation :****Toxic Substances Control Act (TSCA) :**

All components are included in the EPA Toxic Substances Control Act Chemical Substance Inventory.

**OSHA Hazard Communication Standard hazard classes :**

Hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

Immediate health hazard; delayed health hazard.

**EPA SARA Title III Section 313 Toxic Chemicals :** Diisocyanates N120: 101-68-8 upper limit 17%, 9016-87-9 upper limit 25%**CERCLA Reportable Quantity :** MDI: 5,000 RQ

*You may be required to submit this MSDS to state and local emergency response agencies (SERC & LEPC) and to your local fire department based on the chemical and quantity stored at your location. Call the EPA Hotline @ (800)535-0202 for more information or further assistance with chemical reporting requirements.*

**16- OTHER INFORMATION :****HMIS Ratings:****Health. Flammability. Reactivity****2\*.1.1.****Ratings Key: 4 = Highest hazard, 0 = Lowest hazard, \* = Chronic Health Hazard****REVEALING MODIFICATION : I4.PDF**

Revised : 6/24/2010 Supersedes sheet : 2/22/2010 This sheet provides a complement to the product use instructions but does not replace them. The information it contains is based on our current knowledge of the product concerned at the date of drafting. That information is given in good faith and does not in any circumstances remove from the user his duty to be aware of and to follow all legal regulations and statutes covering his activities. The user takes sole responsibility for application of safety measures covering the use of the product he is aware of. We also draw the user's attention to the risks attached to any use of the product for applications for which it was not designed.  
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