

**SeamFree™ Liquid Membrane Activator**

Version 1.2

Revision Date 06/04/2015

Print Date 06/04/2015

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Trade name : SeamFree™ Liquid Membrane Activator

Manufacturer or supplier's details

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

Prepared by : productsafety@jm.com

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

Acute toxicity (Inhalation) : Category 4  
Skin irritation : Category 2  
Eye irritation : Category 2A  
Respiratory sensitisation : Category 1  
Skin sensitisation : Category 1  
Carcinogenicity : Category 2  
Specific target organ toxicity : Category 2  
- repeated exposure

**GHS Label element**

Hazard pictograms :



Signal word : Danger

Hazard statements : H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H351 Suspected of causing cancer.  
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.

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P202 Do not handle until all safety precautions have been read and understood.

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.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear eye protection/ face protection.

P280 Wear protective gloves.

P281 Use personal protective equipment as required.

P284 Wear respiratory protection.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor/ physician.

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.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

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

Chemical Name	CAS-No.	Concentration (%)
Diphenylmethanediisocyanate	9016-87-9	>= 90 - <= 100
4,4'-methylenediphenyl diisocyanate	101-68-8	>= 50 - < 70

**SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Symptoms of poisoning may appear several hours later.  
Do not leave the victim unattended.

If inhaled : Call a physician or poison control centre immediately.

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- If unconscious place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Remove contact lenses.  
Immediately flush eye(s) with plenty of water.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Induce vomiting immediately and call a physician.  
Keep respiratory tract clear.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.

**SECTION 5. FIREFIGHTING MEASURES**

- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known
- Specific extinguishing methods : Standard procedure for chemical fires.
- 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.
- 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.  
Evacuate personnel to safe 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 : Soak up with inert absorbent material (e.g. sand, silica gel,

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containment and cleaning up

 acid binder, universal binder, sawdust).  
 Keep in suitable, closed containers for disposal.

### SECTION 7. HANDLING AND STORAGE

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.  
 Provide sufficient air exchange and/or exhaust in work rooms.  
 Dispose of rinse water in accordance with local and national regulations.  
 Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage

 : Prevent unauthorized access.  
 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
4,4'-methylenediphenyl diisocyanate	101-68-8	TWA	0.005 ppm	ACGIH
		TWA	0.005 ppm 0.05 mg/m3	NIOSH REL
		C	0.02 ppm 0.2 mg/m3	NIOSH REL
		C	0.02 ppm 0.2 mg/m3	OSHA

#### Personal protective equipment

Respiratory protection

: In the case of vapour formation use a respirator with an approved filter.

 Hand protection  
 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

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contact).

Eye protection	: Tightly fitting safety goggles 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	: Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke. Wash hands before breaks and immediately after handling the product. Written instructions for handling must be available at the work place.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: liquid
Colour	: brown
Odour	: musty
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: 300 °C Decomposition
Flash point	: > 200 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: < 0.00007 hPa
Relative vapour density	: No data available
Relative density	: No data available
Density	: ca. 1.24 g/cm <sup>3</sup>
Water solubility	: No data available
Solubility in other solvents	: No data available

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Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Thermal decomposition : No data available

Viscosity  
Viscosity, dynamic : 60 mPa.s (25 °C)

Viscosity, kinematic : No data available

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Conditions to avoid : No data available

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

Acute inhalation toxicity : LC50 (Rat): 0.369 mg/l  
Exposure time: 4 h

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

Remarks: May cause skin irritation and/or dermatitis.

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

Remarks: May cause irreversible eye damage.

**Respiratory or skin sensitisation****Product:**

Remarks: May cause sensitisation of susceptible persons by skin contact or by inhalation of aerosol or dust.

**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.

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**ACGIH**

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

**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.

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

Remarks: No data available

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

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

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 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

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**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.

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Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
 Dispose of as unused product.  
 Do not re-use empty containers.

### SECTION 14. TRANSPORT INFORMATION

#### International transport regulations

These products are not classified as dangerous goods according to international transport regulations.

### SECTION 15. REGULATORY INFORMATION

**TSCA list** : Not relevant  
 Not relevant

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

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
4,4'-methylenediphenyl diisocyanate	101-68-8	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

**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:

Diphenylmethanediisocyanate	9016-87-9	100 %
4,4'-methylenediphenyl diisocyanate	101-68-8	60 %

##### Clean Air Act

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

4,4'-methylenediphenyl diisocyanate	101-68-8	60 %
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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):

4,4'-methylenediphenyl diisocyanate	101-68-8	60 %
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**California Prop 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The components of this product are reported in the following inventories:**

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

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**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.