

# Franklin International

## Safety Data Sheet

### Unilock Polyurethane Concrete Adhesive

#### Section 1. Identification

<b>GHS product identifier</b>	: Unilock Polyurethane Concrete Adhesive
<b>Product type</b>	: Liquid.
<b>CAS #</b>	: mixture
<b>Address</b>	: Franklin International 2020 Bruck Street Columbus OH 43207
<b>Contact person</b>	: Franklin Technical Services
<b>Telephone</b>	: (800) 877-4583
<b>In case of emergency</b>	: Franklin Security (614) 445-1300
<b>Reference number</b>	: 3217
<b>Product code</b>	: 29722
<b>Date of revision</b>	: 6/18/2015.
<b>Print date</b>	: 6/18/2015.
<b>Chemtrec (24 Hour)</b>	: (800) 424 - 9300
<b>Chemtrec International</b>	: (703) 527 - 3887
<b>Chemical family</b>	: Adhesive.

#### Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

#### Section 2. Hazards identification

<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Classification of the substance or mixture</b>	: ACUTE TOXICITY (inhalation) - Category 4 RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nose/sinuses) (inhalation) - Category 2

#### GHS label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

: Harmful if inhaled.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure if inhaled. (nose/sinuses)

## Section 2. Hazards identification

### Precautionary statements

- General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
- Prevention** : Wear protective gloves. In case of inadequate ventilation wear respiratory protection. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Contaminated work clothing should not be allowed out of the workplace.
- Response** : Get medical attention if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

### Hazardous ingredients

#### United States

Name	CAS number	%
methylenediphenyl diisocyanate	26447-40-5	1 - 5
4,4'-methylenediphenyl diisocyanate	101-68-8	1 - 5
Distillates (petroleum), hydrotreated light	64742-47-8	1 - 5

#### Canada

Name	CAS number	%
methylenediphenyl diisocyanate	26447-40-5	1 - 5
4,4'-methylenediphenyl diisocyanate	101-68-8	1 - 5
Distillates (petroleum), hydrotreated light	64742-47-8	1 - 5

#### Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
4,4'-methylenediphenyl diisocyanate	101-68-8	Not available.	1 - 5	75 mg/m <sup>3</sup>	2	1	0	-
Distillates (petroleum), hydrotreated light	64742-47-8	UN1993	1 - 5	-	0	3	0	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
wheezing and breathing difficulties  
asthma
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## Section 4. First aid measures

- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: -4.5061 to 40.556°C (23.9 to 105°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### United States

#### Occupational exposure limits

Ingredient name	Exposure limits
4,4'-methylenediphenyl diisocyanate	<p><b>ACGIH TLV (United States, 4/2014).</b> TWA: 0.005 ppm 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> CEIL: 0.02 ppm CEIL: 0.2 mg/m<sup>3</sup></p> <p><b>NIOSH REL (United States, 10/2013).</b> TWA: 0.05 mg/m<sup>3</sup> 10 hours. TWA: 0.005 ppm 10 hours. CEIL: 0.2 mg/m<sup>3</sup> 10 minutes. CEIL: 0.02 ppm 10 minutes.</p> <p><b>OSHA PEL (United States, 2/2013).</b> CEIL: 0.02 ppm CEIL: 0.2 mg/m<sup>3</sup></p>
Distillates (petroleum), hydrotreated light	<p><b>ACGIH TLV (United States, 4/2014). Absorbed through skin.</b> TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapor) 8 hours.</p>

#### Canada

<u>Occupational exposure limits</u>		<u>TWA (8 hours)</u>			<u>STEL (15 mins)</u>			<u>Ceiling</u>			
<u>Ingredient</u>	<u>List name</u>	<u>ppm</u>	<u>mg/m<sup>3</sup></u>	<u>Other</u>	<u>ppm</u>	<u>mg/m<sup>3</sup></u>	<u>Other</u>	<u>ppm</u>	<u>mg/m<sup>3</sup></u>	<u>Other</u>	<u>Notations</u>
methylenediphenyl diisocyanate	BC 4/2014	0.005	-	-	-	-	-	0.01	-	-	
	ON 1/2013	0.005	-	-	-	-	-	0.02	-	-	
4,4'-methylenediphenyl diisocyanate	US ACGIH 4/2014	0.005	-	-	-	-	-	-	-	-	
	AB 4/2009	0.005	0.05	-	-	-	-	-	-	-	
	BC 4/2014	0.005	-	-	-	-	-	0.01	-	-	[1][3]
	ON 1/2013	0.005	-	-	-	-	-	-	-	-	
Distillates (petroleum), hydrotreated light, as total hydrocarbon vapor	QC 1/2014	0.005	0.051	-	-	-	-	-	-	-	[3]
	US ACGIH 4/2014	-	200	-	-	-	-	-	-	-	[1]
Distillates (petroleum), hydrotreated light, as total hydrocarbon vapour	AB 4/2009	-	200	-	-	-	-	-	-	-	[1]
	BC 4/2014	-	200	-	-	-	-	-	-	-	[1] [A]
Distillates (petroleum), hydrotreated	ON 1/2013	-	200	-	-	-	-	-	-	-	[1]

## Section 8. Exposure controls/personal protection

light											
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[1]Absorbed through skin. [3]Skin sensitization

**Notes:** [A]as total hydrocarbon vapour

### Mexico

#### Occupational exposure limits

Ingredient	Exposure limits
4,4'-methylenediphenyl diisocyanate	<b>NOM-010-STPS (Mexico, 9/2000).</b> LMPE-PPT: 0.005 ppm 8 hours. LMPE-PPT: 0.051 mg/m <sup>3</sup> 8 hours.
Distillates (petroleum), hydrotreated light	<b>ACGIH TLV (United States, 4/2014). Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.

**Consult local authorities for acceptable exposure limits.**

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid. [Paste.]
<b>Color</b>	: Brown.
<b>Odor</b>	: Faint odor.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not applicable.
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: >100°C (>212°F)
<b>Flash point</b>	: Closed cup: >100°C (>212°F) [Setaflash.]
<b>Evaporation rate</b>	: <1 (butyl acetate = 1)
<b>VOC (less water, less exempt solvents)</b>	: 20 g/l
<b>Relative density</b>	: 1.32
<b>Solubility</b>	: Insoluble in the following materials: cold water and hot water.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4,4'-methylenediphenyl diisocyanate	LD50 Oral	Rat	9200 mg/kg	-

**Conclusion/Summary** : Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
4,4'-methylenediphenyl diisocyanate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-

#### Conclusion/Summary

- Skin** : May cause skin irritation. Contains isocyanates. May be harmful if absorbed through skin.
- Eyes** : This product may irritate eyes upon contact.
- Respiratory** : May cause respiratory irritation.

#### Sensitization

#### Conclusion/Summary

- Skin** : Contains isocyanates. May cause sensitization by skin contact. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.



**Section 11. Toxicological information**

**Respiratory** : Contains isocyanates. May cause sensitization by inhalation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Specific target organ toxicity (single exposure)**

Name	Category	Route of exposure	Target organs
methylenediphenyl diisocyanate	Category 3	Not applicable.	Respiratory tract irritation
4,4'-methylenediphenyl diisocyanate	Category 3	Not applicable.	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Name	Category	Route of exposure	Target organs
methylenediphenyl diisocyanate	Category 2	Not determined	Not determined
4,4'-methylenediphenyl diisocyanate	Category 2	Not determined	Not determined

**Aspiration hazard**

Name	Result
Distillates (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact** : May cause an allergic skin reaction.

**Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : No specific data.

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
wheezing and breathing difficulties  
asthma

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**



## Section 11. Toxicological information

- Conclusion/Summary** : Contains isocyanates. May cause allergic reactions in certain individuals. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- General** : May cause damage to organs through prolonged or repeated exposure if inhaled. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated light	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days

**Conclusion/Summary** : Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
methylenediphenyl diisocyanate	4.51	200	low
4,4'-methylenediphenyl diisocyanate	4.51	200	low

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

- Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

**Section 14. Transport information**

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>Mexico Classification</b>	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-	-	-
<b>Packing group</b>	-	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-	-	-

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according  
to Annex II of MARPOL  
73/78 and the IBC Code** : Not available.

**Section 15. Regulatory information**

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** methylenediphenyl diisocyanate; 4,4'-methylenediphenyl diisocyanate  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.

**Clean Air Act Section 112  
(b) Hazardous Air  
Pollutants (HAPs)** : Listed

**Clean Air Act Section 602  
Class I Substances** : Not listed

**Clean Air Act Section 602  
Class II Substances** : Not listed

**SARA 302/304****Composition/information on ingredients**

No products were found.

**SARA 304 RQ** : Not applicable.

**SARA 311/312**

**Classification** : Immediate (acute) health hazard  
Delayed (chronic) health hazard

**Composition/information on ingredients**

**Section 15. Regulatory information**

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
methylenediphenyl diisocyanate	1 - 5	No.	No.	No.	Yes.	Yes.
4,4'-methylenediphenyl diisocyanate	1 - 5	No.	No.	No.	Yes.	Yes.
Distillates (petroleum), hydrotreated light	1 - 5	Yes.	No.	No.	No.	No.

**SARA 313**

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	4,4'-methylenediphenyl diisocyanate	101-68-8	1 - 5
<b>Supplier notification</b>	4,4'-methylenediphenyl diisocyanate	101-68-8	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations**

- Massachusetts** : The following components are listed: METHYLENE BISPHENYL ISOCYANATE (MDI)
- New York** : The following components are listed: Methylene diphenyl diisocyanate
- New Jersey** : The following components are listed: DIISOCYANATES; METHYLENE BISPHENYL ISOCYANATE; BENZENE, 1,1'-METHYLENEBIS[4-ISOCYANATO-
- Pennsylvania** : The following components are listed: SOYBEAN OIL; BENZENE, 1,1'-METHYLENEBIS [4-ISOCYANATO-

**California Prop. 65**

Not available.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Not applicable.				

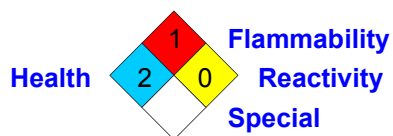
**Canada****Canadian lists**

- Canadian NPRI** : The following components are listed: Methylenebis(phenylisocyanate); Hydrotreated light distillate
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory** : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**Mexico**

**Classification** :

**International regulations**

## Section 15. Regulatory information

<b>International lists</b>	: Australia inventory (AICS): Not determined. China inventory (IECSC): All components are listed or exempted. Japan inventory: Not determined. Korea inventory: Not determined. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): All components are listed or exempted. Taiwan inventory (CSNN): All components are listed or exempted.
<b>Europe</b>	: Not determined.
<b>Chemical Weapons Convention List Schedule I Chemicals</b>	: Not listed
<b>Chemical Weapons Convention List Schedule II Chemicals</b>	: Not listed
<b>Chemical Weapons Convention List Schedule III Chemicals</b>	: Not listed

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	2
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### History

<b>Date of printing</b>	: 6/18/2015.
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## Section 16. Other information

**Date of previous issue** : 6/17/2015.

**Version** : 4

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

**References** : Not available.

▣ Indicates information that has changed from previously issued version.

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.