



# COATLOK U-290A

## SAFETY DATA SHEET - A-SIDE

Compliant SDS for GHS: HazCom 2012 / United States; WHMIS 2015 / Canada.

SECTION 1: IDENTIFICATION	
Supplier/Manufacturer: Huntsman Building Solutions 870 Curé-Boivin Boisbriand, QC, Canada. J7G 2A7 450-437-0123 1-866-437-0223 Fax: 450-437-2338 info@huntsmanbuilds.com, www.huntsmanbuildingsolutions.com	GHS Product Identifier: Coatlok™ U-290A Chemical Name: Diphenylmethane diisocyanate (MDI) Product type: Liquid Identified Use: Component A of a Polyurea Spray System
Emergency Telephone (24/7): CANUTEC 613-996-6666 or *666 (cellular).	

SECTION 2: HAZARDS IDENTIFICATION	
OSHA / HCS Status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the Substance or Mixture	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION (Fertility) - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
GHS LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS	
Hazard Pictograms	
Signal Word	DANGER
Hazard Statements	H319 - Causes serious eye irritation. H315 - Causes skin irritation. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 - May cause an allergic skin reaction. H360 - May damage fertility or the unborn child. H351 - Suspected of causing cancer. H335 - May cause respiratory irritation. H373 - May cause damage to organs through prolonged or repeated exposure.
PRECAUTIONARY STATEMENTS	
Prevention	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P284 - Wear respiratory protection. P271 - Use only outdoors or in a well-ventilated area. P260 - Do not breathe vapor. P264 - Wash hands thoroughly after handling. P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.
Response	P314 - Get medical attention if you feel unwell. P308 + P313 - IF exposed or concerned: Get medical attention. P304 + P341 (OSHA) + P312 - IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or physician. P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
Storage	P405 - Store locked up.
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)	
Physical Hazards Not Otherwise Classified (PHNOC)	None known.
Health Hazards Not Otherwise Classified (HHNOC)	None known.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture	Mixture
Chemical Name	Diphenylmethane diisocyanate (MDI)
CAS NUMBER/OTHER IDENTIFIERS	
CAS Number	Not applicable.
Product Code	Not available.

INGREDIENTS	CAS #	%
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1'-methylenebis [isocyanatobenzene], isocyanate-terminated	96328-90-4	≥50 - <75
Methylenediphenyl diisocyanate	26447-40-5	≥10 - <17
4,4'-Methylenediphenyl diisocyanate	101-68-8	≥10 - <17
Bis(2-ethylhexyl) phthalate	117-81-7	≥5 - <10

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 20 minutes. Get medical attention.
Inhalation	Get medical attention immediately. Call a poison center or physician. 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. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. 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.
Skin Contact	Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 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. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

#### MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED

#### POTENTIAL ACUTE HEALTH EFFECTS

Eye Contact	Causes serious eye irritation.
Inhalation	May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Contact	Causes skin irritation. May cause an allergic skin reaction.
Ingestion	No known significant effects or critical hazards.

OVER-EXPOSURE SIGNS/SYMPTOMS	
Eye Contact	Adverse symptoms may include the following: pain or irritation, watering, redness.
Inhalation	Adverse symptoms may include the following: respiratory tract irritation, coughing, wheezing and breathing difficulties, asthma, reduced fetal weight, increase in fetal deaths, skeletal malformations.
Skin Contact	Adverse symptoms may include the following: irritation, redness, reduced fetal weight, increase in fetal deaths, skeletal malformations.
Ingestion	Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations.
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.
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	
Suitable Extinguishing Media	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Unsuitable Extinguishing Media	None known.
Specific Hazards Arising from the Chemical	No specific fire or explosion hazard.
Hazardous Thermal Decomposition Products	By fire: carbon monoxide, nitrogen, traces of HCN, hydrogen, vapors or aerosols of MDI oxides.
Special Protective Actions for Fire Fighters	No special measures are required.
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. 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 specialized 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 nonemergency 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	
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. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety

	precautions have been read and understood. 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. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.
Conditions for Safe Storage Including any Incompatibilities	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.
Storage Temperature	15 – 30°C (59 – 86°F) (minimum – maximum).
Storage Life	6 Months.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### CONTROL PARAMETERS

#### UNITED STATES

#### OCCUPATIONAL EXPOSURE LIMITS

INGREDIENT NAME	Exposure Limits
4,4'-Methylenediphenyl diisocyanate	ACGIH TLV (États-Unis, 3/2015). TWA: 0.005 ppm 8 hours. NIOSH REL (États-Unis, 10/2013). CEIL: 0.2 mg/m <sup>3</sup> 10 minutes. CEIL: 0.02 ppm 10 minutes. TWA: 0.05 mg/m <sup>3</sup> 10 hours. TWA: 0.005 ppm 10 hours. OSHA PEL (États-Unis, 2/2013). CEIL: 0.2 mg/m <sup>3</sup> CEIL: 0.02 ppm
Bis(2-ethylhexyl) phthalate	ACGIH TLV (United States, 3/2015). TWA: 5 mg/m <sup>3</sup> 8 hours. NIOSH REL (United States, 10/2013). STEL: 10 mg/m <sup>3</sup> 15 minutes. TWA: 5 mg/m <sup>3</sup> 10 hours. OSHA PEL (United States, 2/2013). TWA: 5 mg/m <sup>3</sup> 8 hours.

#### CANADA

OCCUPATIONAL EXPOSURE LIMITS		TWA (8 HOURS)			STEL (15 MINS)			CEILING			
INGREDIENTS NAME	List name	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	Notations
4,4'-Methylenediphenyl diisocyanate	US ACGIH 3/2015	0.005	-	-	-	-	-	-	-	-	
	AB 4/2009	0.005	0.05	-	-	-	-	-	-	-	
	BC 2/2015	0.005	-	-	-	-	-	0.01	-	-	(1) (3)
	ON 7/2015	0.005	-	-	-	-	-	-	-	-	
	QC 1/2014	0.005	0.051	-	-	-	-	-	-	-	(3)
Methylenediphenyl diisocyanate	BC 2/2015	0.005	-	-	-	-	-	0.01	-	-	
	ON 7/2015	0.005	-	-	-	-	-	0.02	-	-	
Bis(2-ethylhexyl) phthalate	US ACGIH 3/2015	-	5	-	-	-	-	-	-	-	
	AB 4/2009	-	5	-	-	-	-	-	-	-	[3]
	BC 2/2015	-	5	-	-	-	-	-	-	-	
	ON 7/2015	-	3	-	-	5	-	-	-	-	
	QC 1/2014	-	5	-	-	10	-	-	-	-	

(1) Absorbed through skin (3) Skin sensitization

Appropriate Engineering Controls	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
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Environmental Exposure Controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
<b>INDIVIDUAL PROTECTION MEASURES</b>	
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: chemical splash goggles.
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 supplied air 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

Physical State	Liquid.
Color	Yellowish.
Odor	Aromatic.
Odor Threshold	Not available.
pH	Not available.
Melting Point	Not available.
Boiling Point	Not available.
Flash Point	>188°C (>370°F)
Evaporation Rate	Not available.
Flammability (Solid, Gas)	Not available.
Lower and Upper Explosive (Flammable) Limits	Not available.
Vapor Pressure	0.000019 kPa (0.00014 mm Hg) [room temperature]
Vapor Density	8.5 [Air = 1]
Specific Gravity @ 25°C (77°F)	1.08 – 1.09
Solubility	Reacts slowly with water to release carbon dioxide.
Partition Coefficient: N-Octanol/Water	Not available.
Auto-Ignition Temperature	Not available.
Decomposition Temperature	Not available.
Viscosity @ 25°C (77°F) (cps)	900 - 1400
Volatility	Not available.

#### SECTION 10: STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability	The product is stable.
Possibility of Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid	Avoid exposure to moisture and high temperatures to protect product quality.
Incompatible Materials	Water, amines, strong bases, alcohols. Corrosive copper alloys and aluminum.
Hazardous Decomposition Products	By fire: carbon monoxide, oxides of nitrogen, traces of HCN, hydrogen, vapors or aerosols of MDI.

## SECTION 11: TOXICOLOGICAL INFORMATION

### INFORMATION ON TOXICOLOGICAL EFFECTS

#### ACUTE TOXICITY

PRODUCT / INGREDIENT NAME	Endpoint	Species	Result	Exposure
4,4'-Methylenediphenyl diisocyanate	LD50 Oral	Rat	9200 mg/kg	-
Bis(2-ethylhexyl) phthalate	LD50 Dermal	Rabbit	25 g/kg	-
	LD50 Oral	Rat	30 g/kg	-

#### IRRITATION / CORROSION

PRODUCT / INGREDIENT NAME	Result	Species	Score	Exposure	Observation
4,4'-Methylenediphenyl diisocyanate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
Bis(2-ethylhexyl) phthalate	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

#### SENSITIZATION

There is no data available.

#### MUTAGENICITY

There is no data available.

#### CARCINOGENICITY

#### CLASSIFICATION

PRODUCT / INGREDIENT NAME	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
4,4'-Methylenediphenyl diisocyanate	-	3	-	-	-	-
Bis(2-ethylhexyl) phthalate	-	2B	Reasonably anticipated to be a human carcinogen.	A3	-	+

#### REPRODUCTIVE TOXICITY

There is no data available.

#### TERATOGENICITY

There is no data available.

#### SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

PRODUCT / INGREDIENT 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)

PRODUCT / INGREDIENT 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

There is no data available.

#### INFORMATION ON THE LIKELY ROUTES OF EXPOSURE

Dermal contact. Eye contact. Inhalation. Ingestion.

#### POTENTIAL ACUTE HEALTH EFFECTS

Eye Contact	Causes serious eye irritation.
Inhalation	May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Contact	Causes skin irritation. May cause an allergic skin reaction.
Ingestion	No known significant effects or critical hazards.
<b>SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS</b>	
Eye Contact	Adverse symptoms may include the following: pain or irritation, watering, redness.
Inhalation	Adverse symptoms may include the following: respiratory tract irritation, coughing, wheezing and breathing difficulties, asthma, reduced fetal weight, increase in fetal deaths, skeletal malformations.
Skin Contact	Adverse symptoms may include the following: irritation, redness, reduced fetal weight, increase in fetal deaths, skeletal malformations.
Ingestion	Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations.
<b>DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE</b>	
<b>SHORT TERM EXPOSURE</b>	
Potential Immediate Effects	No known significant effects or critical hazards.
Potential Delayed Effects	No known significant effects or critical hazards.
<b>LONG TERM EXPOSURE</b>	
Potential Immediate Effects	No known significant effects or critical hazards.
Potential Delayed Effects	No known significant effects or critical hazards.
<b>POTENTIAL CHRONIC HEALTH EFFECTS</b>	
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	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	May damage the unborn child.
Developmental Effects	No known significant effects or critical hazards.
Fertility Effects	May damage fertility.
<b>NUMERICAL MEASURES OF TOXICITY - ACUTE TOXICITY ESTIMATES</b>	
<b>ROUTE</b>	ATE Value
Inhalation (dust and mists)	5.129 mg/l

## SECTION 12: ECOLOGICAL INFORMATION

### TOXICITY

PRODUCT / INGREDIENT NAME	Result	Species	Exposure
4,4'-Methylenediphenyl diisocyanate	Acute LC50 1.5 mg/l	Algae	72 hours
Bis(2-ethylhexyl) phthalate	Acute EC50 133 µg/L Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 690 µg/L Fresh water	Fish - Ictalurus punctatus	96 hours
	Chronic NOEC 109 µg/L Fresh water	Crustaceans - Eurytemora affinis - Nauplii	21 days
	Chronic NOEC 77 µg/L Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 502 µg/L Fresh water	Fish - Oncorhynchus mykiss - Egg	90 days
	Acute EC50 31000000 µg/L Marine water	Algae - Gymnodinium breve	96 hours

### PERSISTENCE AND DEGRADABILITY

There is no data 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
Bis(2-ethylhexyl) phthalate	7.6	1380	High.
MOBILITY IN SOIL			
Soil/Water Partition Coefficient (K <sub>oc</sub> )	There is no data available.		
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 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 empty 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.
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#### UNITED STATES - RCRA TOXIC HAZARDOUS WASTE "U" LIST

INGREDIENT	CAS #	Status	Reference number
Bis(2-ethylhexyl) phthalate	117-81-7	Listed	U028

### SECTION 14: TRANSPORTATION INFORMATION

DOT	Not regulated.
TDG	Not regulated.
IMDG	Not regulated.
IATA	Not regulated.

DOT-RQ Details	4,4'-Methylenediphenyl diisocyanate 5000 lbs / 2270 kg. Bis(2-ethylhexyl) phthalate 100 lbs / 45.4 kg [12.164 gal / 46.045 L]
Special precautions for user	<b>Transport within user's premises:</b> 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

#### UNITED STATES

U.S. Federal Regulations	TSCA 8(a) PAIR: 4,4'-Methylenediphenyl diisocyanate; Methylenediphenyl diisocyanate. TSCA 8(a) CDR Exempt/Partial exemption: Not determined. TSCA 8(c) calls for record of SAR: 4,4'-Methylenediphenyl diisocyanate; Methylenediphenyl diisocyanate. United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 307: 4,4'-Methylenediphenyl diisocyanate, Bis(2-ethylhexyl) phthalate.
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Listed.
Clean Air Act Section 602 Class I	Not listed.



Substances						
Clean Air Act Section 602 Class II Substances	Not listed.					
DEA List I Chemicals (Precursor Chemicals)	Not listed.					
DEA List II Chemicals (Essential Chemicals)	Not listed.					
<b>SARA 302/304</b>						
No products were found.						
SARA 304 RQ	Not applicable.					
<b>SARA 311/312</b>						
<b>CLASSIFICATION</b>						
Immediate (acute) health hazard. Delayed (chronic) health hazard.						
<b>COMPOSITION/INFORMATION ON INGREDIENTS</b>						
<b>PRODUCT / INGREDIENT NAME</b>	<b>%</b>	<b>Fire Hazard</b>	<b>Sudden Release of Pressure</b>	<b>Reactive</b>	<b>Immediate(Acute) Health Hazard</b>	<b>Delayed (Chronic) Health Hazard</b>
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1'-methylenebis [isocyanatobenzene], isocyanate-terminated	≥50 - <75	No.	No.	No.	Yes	No.
Methylenediphenyl diisocyanate	≥10 - <17	No.	No.	No.	Yes	Yes
4,4'-Methylenediphenyl diisocyanate	≥10 - <17	No.	No.	No.	Yes.	Yes.
Bis(2-ethylhexyl) phthalate	≥5 - <10	No.	No.	No.	No.	Yes.
<b>SARA 313</b>						
	<b>PRODUCT / INGREDIENT NAME</b>	<b>CAS #</b>	<b>%</b>			
Form R – Reporting requirements	4,4'-Methylenediphenyl diisocyanate	101-68-8	≥10 - <17			
	Bis(2-ethylhexyl) phthalate	117-81-7	≥5 - <10			
Supplier notification	4,4'-Methylenediphenyl diisocyanate	101-68-8	≥10 - <17			
	Bis(2-ethylhexyl) phthalate	117-81-7	≥5 - <10			
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.						
<b>STATE REGULATIONS</b>						
Massachusetts	The following components are listed: 4,4'-Methylenediphenyl diisocyanate, Bis(2-ethylhexyl) phthalate.					
New York	The following components are listed: 4,4'-Methylenediphenyl diisocyanate, Bis(2-ethylhexyl) phthalate.					
New Jersey	The following components are listed: 4,4'-Methylenediphenyl diisocyanate; Methylenediphenyl diisocyanate, Bis(2-ethylhexyl) phthalate.					
Pennsylvania	The following components are listed: 4,4'-Methylenediphenyl diisocyanate, Bis(2-ethylhexyl) phthalate.					
California Prop. 65	<b>WARNING:</b> This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.					
<b>PRODUCT / INGREDIENT NAME</b>	<b>Cancer</b>	<b>Reproductive</b>	<b>No significant risk level</b>	<b>Maximim acceptable dosage level</b>		
Bis(2-ethylhexyl) phthalate	Yes.	Yes.	Yes.	410 µg/day (ingestion)		
<b>CANADA</b>						
<b>CANADIAN LISTS</b>						
<b>Canadian NPRI</b>	The following components are listed: 4,4'-Methylenediphenyl diisocyanate, Bis(2-ethylhexyl) phthalate.					
<b>CEPA Toxic Substances</b>	The following components are listed: Bis(2-ethylhexyl) phthalate.					

Canada Inventory	All components are listed or exempted.
<b>INTERNATIONAL LISTS / NATIONAL INVENTORY</b>	
Australia	Not determined.
China	Not determined.
Europe	Not determined.
Japan	Not determined.
Malaysia	Not determined.
New Zealand	Not determined.
Philippines	Not determined.
Republic of Korea	Not determined.
Taiwan	Not determined.

## SECTION 16: OTHER INFORMATION

### HISTORY

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### 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

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