



SAFETY DATA SHEET

ELASTAFLEX™ 1.0 "A" Component Revised Date: 10/30/2018 Version: 3

SDS-253

SECTION 1: IDENTIFICATION

PRODUCT NAME **CAS NUMBER PRODUCT USE MANUFACTURER ADDRESS PHONE** FAX **EMERGENCY CONTACT TOLL FREE** INTERNATIONAL

FAX

ELASTAFLEX™ 1.0 "A" Component Synergy Series

Not available Polyurea Coating Specialty Products, Inc. (SPI)

2410 104TH ST. CT. S. STE D LAKEWOOD, WA 98499

800 627 0773 253 588 7101

253 588 7196

FOR SPILLS, LEAKS, FIRE, OR EXPOSURE CALL CHEMTREC

800 424 9300 +1 703 527 3887 913 321 1490

SECTION 2: HAZARDS IDENTIFICATION

GHS LABEL ELEMENTS

GHS PICTOGRAM





DANGER

DAITOEIT						
GHS CLASSIFICATION						
CATEGORY		HAZARD STATEMENTS				
Skin corrosion/irritation	Category 2	H315	Causes skin irritation.			
Skin sensitization	Category 1	H317	May cause an allergic skin reaction.			
Serious eye damage/eye irritation	Category 2B	H320	Causes eye irritation.			
Acute toxicity inhalation	Category 4	H332	Harmful if inhaled.			
Respiratory sensitization	Category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.			
Specific target organ toxicity (STOT), single exposure; respiratory tract	Category 3	H335	May cause respiratory irritation.			
Specific target organ toxicity (STOT), repeated exposure	Category 1	H372	Causes damage to organs (respiratory tract) through prolonged or repeated exposure if inhaled.			
PRECAUTIONARY STATEMENTS						

PRECAUTIONARY STATEMENTS					
	PREVENTION				
P260	Do not breathe dust/fume/gas/mist/vapors/spray.				
P264	Wash hands thoroughly after handling.				
P270	Do not eat, drink, or smoke when using this product.				
P271	Use only out doors or in a well-ventilated area.				
P272	Contaminated work clothing should not be allowed out of the workplace.				
P280	Wear protective gloves/protective clothing/eye protection/face protection.				
P285	In case of inadequate ventilation wear respiratory protection.				
	RESPONSE				
P302+P352	IF ON SKIN: Wash with plenty of soap and water.				
P321	Specific treatment (as detailed in this SDS).				
P332+P313	IF SKIN irritation occurs: Get medical advice/attention.				
P362	Take off contaminated clothing and wash before reuse.				
P363	Wash contaminated clothing before reuse.				
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 advice/attention.				
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.				
P312	Call a POISON CENTER or doctor/physician if you feel unwell.				
P304+P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.				
P342+P311	IF experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.				
P314	Get medical advice/attention if you feel unwell.				
	STORAGE				
P403+P233	Store in a well-ventilated place. Keep container tightly closed.				
P405	Store locked up.				
	DISPOSAL				
P501	Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.				

SECTION 2. COMPOSIT	ION (INFORMATION ON INCREDIENTS				
	ION/INFORMATION ON INGREDIENTS				
CHEMICAL NAME		CAS NUMBER	% WEIGHT		
Isocyantes, reaction product of	• •	*Proprietary	10-30		
2,4'-Diphenylmethane diisocya		5873-54-1	10-30		
4,4'-Diphenylmethane diisocya	nate	101-68-8	10-30		
Propylene carbonate		108-32-7	10-30		
2,2'-Diphenylmethane diisocya		2536-05-2	1-5		
SECTION 4: FIRST AID N	and exact percentage (concentration) is withheld as a trade secret per	applicable regulations	and statutes.		
EYE:	In case of contact, immediately flush eyes with plenty of water for at least 15 m	inutes Get medical attenti	on immediately		
SKIN:	After contact with skin, wash immediately with plenty of warm, soapy water. Re Continue to rinse for at least 10 minutes. A poly-glycol based skin cleanser or c water. Get medical attention if symptoms occur. Wash clothing before reuse. C	corn oil may be more effec	tive than soap and		
INHALATION:	Move exposed person to fresh air. Get medical attention immediately irritation or bronchospasm. If breathing is labored, oxygen should be				
INGESTION:	Do not induce vomiting unless directed to do so by medical personnel. Never person. Provided the patient is conscious, wash out mouth with water. Get me	give anything by mouth to dical attention if symptoms	an unconscious appear.		
NOTES TO PHYSICIAN:	Symptomatic and supportive therapy as needed. Following severe emonitored for 48 hours.	xposure, medical follow	-up should be		
SECTION 5: FIRE FIGHTI	NG MEASURES				
FLASH POINT:	Not available.				
HAZARDS WHEN ON FIRE OR NEAR FLAME:	Closed container may forcibly rupture under extreme heat or when CCO_2 formed).	ontents are contaminate	ed with water		
SUITABLE EXTINGUISHING MEDIA:	Dry chemical, carbon dioxide, or dry powder.				
UNSUITABLE EXTINGUISHING MEDIA:	Direct water spray.				
SPECIAL EXPOSURE HAZARDS:	Promptly isolate the scene by removing all persons from the vicinity of action shall be taken involving any personal risk or without suitable traincrease will occur and the container may rupture.	of the incident if there is aining. If in a fire or hea	a fire. No ated, a pressure		
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. PVC boots, gloves, safety helmet, and protective clothing should be worn.				
SECTION 6: ACCIDENTA	L RELEASE MEASURES				
ACCIDENTAL RELEASE MEASURES:	For major spills call CHEMTREC : Toll free 1-800-424-9300 for international forms of the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free 1-800-424-9300 for international free than the spills call CHEMTREC : Toll free than the spills call CHEMTREC : Toll free than the spills call CHEMTREC : Toll free than the spills call the spi	ational call 1-703-527-3	887.		
PERSONAL PRECAUTIONS:	Wear appropriate personal protective equipment recommended in SI PERSONAL PROTECTION of this SDS. Immediately contact emergen upwind avoiding inhalation of vapors. Clean-up should only be performed dealing with major spillages should wear full protective clothing inclusions.	ncy personnel. Evacuate ormed by trained persor	e the area. Keep inel. People		
ENVIRONMENTAL PRECAUTIONS:	This material may contaminate the environment without proper contr material does not come in contact with soil, waterway, drains, sewers disperse the material. Inform the relevant authorities if the product h (sewers, waterways, soil, or air). Sources of ignition should be kept c	s, or other runoff that wo as caused environment	ould further		
METHODS FOR CONTAINMENT:	Use diking or capping to control migration. Contain and absorb large spillages with a non-flammable absorbent carrier (such as vermiculite, earth, or sand). DO NOT USE combustible materials such as sawdust. Shovel into open-top drums or plastic bags for further decontamination, if necessary. Remove and properly dispose of residues. Dispose of via a licensed waste disposal contractor (See SECTION 13: DISPOSAL CONSIDERATIONS) Notify applicable government authorities if release is reportable.				
METHODS FOR CLEANING UP:	Only proceed with clean up by taking the appropriate personal protection measures required and ensure surrounding area does not contain further hazards that could worsen the spill, cause migration, or cause further harm (i.e. eliminate any ignition sources). Move any non-contaminated, non-leaking containers from the spill zone if it can be done safely. Dike, dam, or further restrict and stop active leaks without posing further damage or harm to individuals, the environment, and/or structures. Contain and collect spillage. See SECTION 13: DISPOSAL CONSIDERATIONS for disposal information and SECTION 8: EXPOSURE CONTROL/ PERSONAL PROTECTION for recommended Personal Protective Equipment (PPE). Obey all local, state, and federal regulations during clean up.				

SECTION 7. HANDLING	% STORACE				
SECTION 7: HANDLING					
GENERAL:	Ideal storage temperature is 60-90°F (15-32°C). Handling and storage shall be in accordance with local, state/provincial, or federal regulations.				
HANDLING:	Before opening this package, read and follow warning labels on all components. Avoid contact with the product or reaction mixture. Put on appropriate personal protective equipment. Use only with adequate ventilation to ensure that the occupational exposure limit is not exceeded, use respirator when ventilation is inadequate. Avoid breathing aerosols, mists, and vapors. (See SECTION 8: EXPOSURE CONTROL/ PERSONAL PROTECTION for details). Do not ingest. Eating, drinking, and smoking shall be prohibited in areas where this material is handled, stored, and processed. Workers shall wash hands and face before eating, drinking, and smoking. Persons with a history of skin sensitization problems, 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, on skin, or clothing. Keep in the original container or an approved alternative made from a compatible material. Keep tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse containers.				
STORAGE:	Keep container tightly closed and properly sealed when stored. Keep contents away from moisture. Due to reaction with water producing CO ₂ gas, a hazardous build-up of pressure could result if contaminated containers are resealed. DO NOT reseal contaminated containers. Uncontaminated containers, free of moisture, may be resealed and stored after purging the container with argon or nitrogen gas.				
SECTION 8: EXPOSURE	CONTROLS/PERSONAL	PROTECTION			
EXPOSURE LIMITS:					
COMPONENT NAME	CAS NUMBER	EXPOSURE LIMITS			
Isocyantes, reaction product of polyol with MDI	*Proprietary	Not available			
2,4'-Diphenylmethane diisocyanate	5873-54-1	Not available			
4,4'-Diphenylmethane diisocyanate	ACGIH TLV TWA: 0.005 ppm 8 hour(s) OSHA PEL CEIL: 0.02 ppm CEIL: 0.2 mg/m³ NIOSH REL CEIL: 0.2 mg/m³ 10 minute(s) CEIL: 0.02 ppm 10 minute(s) TWA: 0.05 ppm 10 hour(s) TWA: 0.005 ppm 10 hour(s)				
Propylene carbonate	108-32-7	Not available			
2,2'-Diphenylmethane diisocyanate	2536-05-2 Not available				
ENGINEERING CONTROLS:	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation, and other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.				
HYGIENE MEASURES:	Wash hands, forearms, and face thoroughly with plenty of soap and water after handling chemical products, before eating, smoking, and using the restroom and at the end of the working period. Appropriate engineering, administrative, and other best practice decontamination control measures must be used to isolate contaminates on clothing and to prevent unintended migration of contaminants. Handle clothing and other potentially contaminated material appropriately and in compliance with local, state, and federal regulations in the process of removing, washing/cleaning, and reuse of these potentially contaminated materials. Ensure compliant use and location of eyewash station and safety showers.				
PERSONAL PROTECTIVE EQU	IIPMENT (PPE):				
EYE 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, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield.				
SKIN PROTECTION:	Personal protective equipment for the body should be selected based on the task being performed, the risks involved, and should be approved by an industrial hygiene specialist before handling this product.				
HANDS PROTECTION:	Chemical resistant gloves complying with applicable health and safety standards shall be worn when handling this product. Protective gloves are those made from butyl rubber, nitrile rubber, or polyvinyl alcohol. Appropriate hazard assessments in conjunction with an evaluation of the protection factors of chemical resistant gloves shall be performed to ensure the protective properties remain intact. It is noted that the time it takes to breakdown of protection factors for different glove manufacturers varies. In the case of mixtures, the protection factors of chemical resistant gloves may be impacted and deteriorate at unpredictable rates without understanding the impact of the substance and the specific protection factors of the chemical resistant gloves.				
RESPIRATORY PROTECTION:		he respirator is the sole means of protection, use a full-face supplied respirator. Use sted and approved under appropriate government standards such as OSHA 29CFR U).			
ENVIRONMENTAL EXPOSURE CONTROLS:	Dispose of raw and spent materials and wastes in compliance with all local, state, and federal regulations to prevent potential environmental contamination. Industrial air monitoring may be required to determine any potential environmental hazards to the atmosphere. This monitoring may result in the use of engineering and administrative controls such as filtering and scrubbing systems to mitigate or eliminate potential contaminants.				

SECTION 9: PHYSICAL &	CHEMICAL PROPE	RTIES			
PHYSICAL STATE:	Liquid	FLASH PO	DINT:	Not available	
COLOR:	Clear yellow	AUTO-IGN	NITION TEMPERATURE:	Not available	
ODOR:	Slightly musty	DECOMP	OSITION TEMPERATURE:	Not available	
ODOR THRESHOLD:	Not available	EXPLOSI\	/E LIMITS:	Not explosive	
pH:	Not applicable	FLAMMAI	BILITY:	Not available	
WATER SOLUBILITY:	Not available	BOILING	POINT:	Not available	
PARTITION COEFFICIENT:	Not available	BOILING I	RANGE:	Not available	
SPECIFIC GRAVITY:	1.11±0.005 g/cc @ 77°F	(25°C) MELTING	FREEZING POINT:	Not available	
VISCOSITY:	450±50 mPa.s @ 77°F	(25°C) VAPOR P	RESSURE:	Not available	
EVAPORATION RATE:	Not available	VAPOR D	ENSITY:	Not available	
VOC:	0 g/L	RELATIVE	DENSITY:	9.2±0.05 lbs/gal	
SECTION 10: STABILITY &	REACTIVITY				
STABILITY:	Stable when handled	and stored at temperatu	res 60-90°F (15-32°C).		
INCOMPATIBILITY:	Incompatible with wat	er, alcohols, amines, bas	ses, and acids.		
HAZARDOUS REACTION:	Exothermic reaction will occur when combined with sister component. Under normal conditions of storage and use, hazardous reactions will not occur. Reaction with water (moisture) produces CO ₂ gas. An exothermic reaction with materials containing active hydrogen groups can occur. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. This material is insoluble with, and heavier than, water and sinks to the bottom, but reacts slowly at the interface. A solid water insoluble layer of polyurea is formed at the interface by liberating carbon dioxide.				
HAZARDOUS POLYMERIZATION:	Polymerization may occur at elevated temperatures in the presence of alkalis, tertiary amines and metal compounds. Under normal conditions of storage and use, hazardous polymerization should not occur.				
CONDITIONS TO AVOID:	Avoid moisture contamination and high temperatures.				
HAZARDOUS DECOMPOSITION:	May produce toxic fumes of carbon dioxide, carbon monoxide, and/or nitrogen oxides when near heat source/flame.				
SECTION 11: TOXICOLOGY INFORMATION					
ACUTE HEALTH EFFECTS:					
EYE CONTACT:	Causes eye irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing.				
SKIN CONTACT:	Causes skin irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove. Contact with MDI can cause discoloration.				
INHALATION:	Diisocyanate vapors or mist at concentrations above the TLV or PEL can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g., fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible. The test atmosphere generated in the animal study is not representative of workplace environments, how the substance is placed on the market, and how it can reasonably be expected to be used. Therefore the test result cannot be directly applied for the purpose of assessing hazard. Based on expert judgment and the weight of the evidence, a modified classification for acute inhalation toxicity is justified.				
	membranes in the respiral shortness of breath and responsively can responsively can like symptoms. Exedema (fluid in lungs). Chereported. These symptom test atmosphere generate placed on the market, and applied for the purpose of	tory tract (nose, throat, lung educed lung function (breat and to concentrations below the TLV emical or hypersensitivity press can be delayed up to seved in the animal study is not how it can reasonably be fassessing hazard. Based of	s) causing runny nose, sore throughing obstruction). Persons with the TLV or PEL with similar symfor PEL may lead to bronchitis, with flu-like symptomeral hours after exposure. These representative of workplace erexpected to be used. Therefore	pat, coughing, chest discomfort, a preexisting, nonspecific bronchial ptoms as well as asthma attack or pronchial spasm and pulmonary ms (e.g., fever, chills), has also been e effects are usually reversible. The prironments, how the substance is the test result cannot be directly	
INGESTION:	membranes in the respira shortness of breath and re hyperreactivity can respon asthma-like symptoms. Ex edema (fluid in lungs). Che reported. These symptom test atmosphere generate placed on the market, and applied for the purpose of classification for acute inh	tory tract (nose, throat, lung educed lung function (breat and to concentrations below the TLV emical or hypersensitivity pass can be delayed up to seved in the animal study is not all how it can reasonably be a sassessing hazard. Based a alation toxicity is justified.	s) causing runny nose, sore thro hing obstruction). Persons with the TLV or PEL with similar sym- or PEL may lead to bronchitis, I neumonitis, with flu-like sympto- veral hours after exposure. These representative of workplace er expected to be used. Therefore on expert judgment and the wei	pat, coughing, chest discomfort, a preexisting, nonspecific bronchial ptoms as well as asthma attack or pronchial spasm and pulmonary ms (e.g., fever, chills), has also been e effects are usually reversible. The prironments, how the substance is the test result cannot be directly	
INGESTION: ACUTE TOXICITY:	membranes in the respira shortness of breath and re hyperreactivity can respon asthma-like symptoms. Ex edema (fluid in lungs). Che reported. These symptom test atmosphere generate placed on the market, and applied for the purpose of classification for acute inh	tory tract (nose, throat, lung educed lung function (breat and to concentrations below the TLV emical or hypersensitivity pass can be delayed up to seved in the animal study is not all how it can reasonably be a sassessing hazard. Based a alation toxicity is justified.	s) causing runny nose, sore thro hing obstruction). Persons with the TLV or PEL with similar sym- or PEL may lead to bronchitis, I neumonitis, with flu-like sympto- veral hours after exposure. These representative of workplace er expected to be used. Therefore on expert judgment and the wei	pat, coughing, chest discomfort, a preexisting, nonspecific bronchial ptoms as well as asthma attack or pronchial spasm and pulmonary ms (e.g., fever, chills), has also been e effects are usually reversible. The principle wironments, how the substance is the test result cannot be directly ght of the evidence, a modified	
	membranes in the respira shortness of breath and re hyperreactivity can respon asthma-like symptoms. Ex edema (fluid in lungs). Che reported. These symptom test atmosphere generate placed on the market, and applied for the purpose of classification for acute inh	tory tract (nose, throat, lung educed lung function (breat and to concentrations below the TLV emical or hypersensitivity pass can be delayed up to seved in the animal study is not all how it can reasonably be a sassessing hazard. Based a alation toxicity is justified.	s) causing runny nose, sore thro hing obstruction). Persons with the TLV or PEL with similar sym- or PEL may lead to bronchitis, I neumonitis, with flu-like sympto- veral hours after exposure. These representative of workplace er expected to be used. Therefore on expert judgment and the wei	pat, coughing, chest discomfort, a preexisting, nonspecific bronchial ptoms as well as asthma attack or pronchial spasm and pulmonary ms (e.g., fever, chills), has also been e effects are usually reversible. The principle wironments, how the substance is the test result cannot be directly ght of the evidence, a modified	
ACUTE TOXICITY:	membranes in the respiral shortness of breath and responsively can responsively can responsively can feel atthmatical symptoms. Exedema (fluid in lungs). Chareported. These symptom test atmosphere generate placed on the market, and applied for the purpose of classification for acute inh	tory tract (nose, throat, lung educed lung function (breat and to concentrations below the TLV emical or hypersensitivity press can be delayed up to set and in the animal study is not a how it can reasonably be a sassessing hazard. Based alation toxicity is justified.	s) causing runny nose, sore throthing obstruction). Persons with the TLV or PEL with similar symfor PEL may lead to bronchitis, Inneumonitis, with flu-like symptoreral hours after exposure. These representative of workplace erexpected to be used. Therefore on expert judgment and the weights and include abdominal pages.	pat, coughing, chest discomfort, a preexisting, nonspecific bronchial ptoms as well as asthma attack or pronchial spasm and pulmonary ms (e.g., fever, chills), has also been e effects are usually reversible. The priments, how the substance is the test result cannot be directly ght of the evidence, a modified in, nausea, vomiting, and diarrhea.	
ACUTE TOXICITY: COMPONENT NAME	membranes in the respiral shortness of breath and respondent stranger of the symptoms. Exedema (fluid in lungs). Chareported. These symptom test atmosphere generate placed on the market, and applied for the purpose of classification for acute inhuman cause irritation of the complex of the c	tory tract (nose, throat, lung educed lung function (breat and to concentrations below the TLV emical or hypersensitivity plas can be delayed up to seved in the animal study is not all how it can reasonably be a sassessing hazard. Based calation toxicity is justified. LD ₅₀ Oral (mg/kg)	s) causing runny nose, sore throthing obstruction). Persons with the TLV or PEL with similar symon PEL may lead to bronchitis, in the meumonitis, with flu-like sympton yeral hours after exposure. These representative of workplace erexpected to be used. Therefore on expert judgment and the well ms may include abdominal parts.	pat, coughing, chest discomfort, a preexisting, nonspecific bronchial ptoms as well as asthma attack or pronchial spasm and pulmonary ms (e.g., fever, chills), has also been e effects are usually reversible. The prior ments, how the substance is the test result cannot be directly ght of the evidence, a modified in, nausea, vomiting, and diarrhea. LC ₅₀ Inhalation (mg/L/4hrs)	
ACUTE TOXICITY: COMPONENT NAME 2,4'-Diphenylmethane diisocyanate	membranes in the respiral shortness of breath and responsively can responsively can responsively can responsively can response the symptoms. Exedema (fluid in lungs). Chereported. These symptom test atmosphere generate placed on the market, and applied for the purpose of classification for acute inhuman cause irritation of the CAS NUMBER 5873-54-1	tory tract (nose, throat, lung educed lung function (breat and to concentrations below the TLV emical or hypersensitivity properties can be delayed up to several in the animal study is not a how it can reasonably be assessing hazard. Based calation toxicity is justified. LD ₅₀ Oral (mg/kg) >2,000 (rat)	s) causing runny nose, sore throthing obstruction). Persons with the TLV or PEL with similar symfor PEL may lead to bronchitis, with flu-like symptor peral hours after exposure. These representative of workplace erexpected to be used. Therefore on expert judgment and the weight may include abdominal particles. LD ₅₀ Dermal (mg/kg) >9,400 (rabbit)	pat, coughing, chest discomfort, a preexisting, nonspecific bronchial ptoms as well as asthma attack or pronchial spasm and pulmonary ms (e.g., fever, chills), has also been e effects are usually reversible. The prironments, how the substance is the test result cannot be directly ght of the evidence, a modified in, nausea, vomiting, and diarrhea. LC ₅₀ Inhalation (mg/L/4hrs) 0.49 (rat)	

POTENTIAL CHRONIC EFFECTS	
CHRONIC EFFECTS:	As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to isocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to isocyanates at levels well below the TLV or PEL. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Sensitization can be permanent. Chronic overexposure to isocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) that may be permanent. Prolonged contact with skin can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests and other research indicate that skin contact with MDI can play a role in causing isocyanate sensitization and respiratory reaction. This data reinforces the need to prevent direct skin contact with isocyanates. Prolonged vapor contact with the eyes may cause conjunctivitis.
TARGET ORGANS:	Contains material which causes damage to the upper respiratory tract.
CARCINOGENICITY:	As of this publication, this material is not listed on the National Toxic Program (NTP) Report of Carcinogens. Please refer to the most recent information with NTP. The material is classified on the International Agency for Research on Cancer (IARC) Monographs as Group 3. Exposure to levels of MDI, significantly above the threshold limit value (0.005 ppm), was shown to be related to the occurrence of lung tumors in a study using rats.
MUTAGENICITY:	No known significant effects or critical hazards.
TERATOGENICITY:	No known significant effects or critical hazards.
FERTILITY EFFECTS:	No known significant effects or critical hazards.
DEVELOPMENTAL EFFECTS:	No known significant effects or critical hazards.
MEDICAL CONDITIONS AGGRAVATED BY OVER-EXPOSURE:	Existing respiratory/pulmonary and skin conditions may be aggravated by overexposure.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS:

Based on a review of the individual components, this product has low ecotoxicity on aquatic organisms. When in contact with water an inert non-biodegradable solid will be produced. There is no evidence of bio-accumulation occurring.

SECTION 13: DISPOSAL CONSIDERATION

WASTE DISPOSAL:

By-product wastes or process waste generation should be eliminated and/or minimized when possible. Do not dispose of any contaminants into sanitary sewer systems, storm drains, Publicly Owned Treatment Works (POTW), or any other municipal waste water treatment facility without written approval and agreements for processing wastes with such enterprises. Dispose of raw or unused materials, wastes, and/or by-products in accordance with all applicable local, state, and federal laws. Employ the expertise and knowledge of qualified personnel or contractors in disposal of any and all variants of this product. Ensure material containers are cleaned to the applicable standards before recycling, disposing, or reusing containers. Take special precautions to avoid any cross contamination and potential unknown effects from mixing with other substances. Refer to SECTION 8: EXPOSURE CONTROL/ PERSONAL PROTECTION of this document for personal protection requirements. Disposal to the environment or in violation of environmental protection laws and statutes must be prevented.

SECTION 14: TRANSPORT INFORMATION

PROPER SHIPPING NAME:			
DOT:	Other regulated substance, liquid, n.o.s. (contains: 4,4'-Diphenylmethane diisocyanate) *Single containers less than 5,000 lbs. are not regulated.		
TDG:	Not regulated.		
IMDG:	Not regulated.		
IATA:	Not regulated.		

This product could potentially contaminate aquatic and terrestrial environments if not handled in accordance with all precautions, regulations, and laws. Users, transporters, and all other applicable entities must review, follow, and apply any and all necessary precautions and procedures to eliminate and/or minimize potential hazards or risks to aquatic or terrestrial environments.

REGULATORY INFORMATION	UN NUMBER	CLASSES	PG*	LABEL	ADDITIONAL INFORMATION
DOT Classification	NA3082	9	III		Reportable quantity 5,000 lbs. (2,268 kg) Single containers less than 5,000 lbs. are not regulated.
*PG: Packaging group					

SECTION 15: REGULATORY I	NFORMATION						
U.S. Federal Regulations							
TSCA 8b Inventory:	All components are listed on the TSCA inventory or are exempt.						
TSCA 5a (2):	No components list	No components listed.					
TSCA 5e:	No components list	ted.					
TSCA 12b:	No components list	No components listed.					
Clean Air Act Section 112(b)	СОМР	ONENT	CAS NUMBER		CONCENTRATION		
Hazardous Air Pollutants (HAPs):	4,4'-Diphenylmetha	ane diisocyanate	101	-68-8	10-30%		
Clean Air Act - Ozone Depleting Substances (ODS):	This product does	not contain nor is it m	anufactured with o	zone depleting subs	tances.		
SARA 313 Form R - Reporting	СОМР	ONENT	CAS N	UMBER	CONCENTRATION		
Requirements:	4,4'-Diphenylmetha	ne diisocyanate	101	-68-8	10-30%		
SARA 311/312 hazard identification:	Immediate (acute) h Delayed (chronic) h						
CERCLA Hazardous substances:							
Component	Concentration	Section 302	Section 313	Section 304	Reportable Quantity		
4,4'-Diphenylmethane diisocyanate	10-30%	Not listed	Listed	Not listed	5,000 lbs		
STATE REGULATIONS:							
PENNSYLVANIA/NEW JERSEY/	COMPONENT		CASA	LIMPED	CONCENTRATION		
MACCACHLICETTC DTV	COM	ONENI	CASIN	UMBER	CONCENTRATION		
MASSACHUSETTS - RTK:	2,4'-Diphenylmetha			3-54-1	10-30%		
MASSACHUSETTS - RTK:		ane diisocyanate	587				
MASSACHUSETTS - RTK: California Prop 65:	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai	ane diisocyanate	587 101 es known to the St	3-54-1 -68-8 ate of California to ca	10-30% 10-30% ause cancer, birth		
	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai	ane diisocyanate ane diisocyanate ins no listed substanc	587 101 es known to the St	3-54-1 -68-8 ate of California to ca	10-30% 10-30% ause cancer, birth		
California Prop 65:	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re	ane diisocyanate ane diisocyanate ins no listed substanc	587 101 es known to the St evels which would i	3-54-1 -68-8 ate of California to carequire a warning un	10-30% 10-30% ause cancer, birth der the statute.		
California Prop 65:	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re WHMIS Class D-1A: WHMIS Class D-2A	ane diisocyanate ane diisocyanate ins no listed substanc productive harm, at le	587 101 es known to the St evels which would i	3-54-1 -68-8 ate of California to carequire a warning un	10-30% 10-30% ause cancer, birth der the statute.		
California Prop 65: CANADA WHMIS (Canada):	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re WHMIS Class D-1A: WHMIS Class D-2A All components are	ane diisocyanate ane diisocyanate ane diisocyanate ans no listed substanc productive harm, at le Material causing im Material causing ot e listed or exempted.	587 101 es known to the St evels which would i mediate and seriou her toxic effects (ve	3-54-1 -68-8 ate of California to carequire a warning un s toxic effects (very try toxic).	10-30% 10-30% ause cancer, birth der the statute. oxic).		
California Prop 65: CANADA WHMIS (Canada): CEPA DSL: This product has been classified in a	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re WHMIS Class D-1A: WHMIS Class D-2A All components are	ane diisocyanate ane diisocyanate ane diisocyanate ans no listed substanc productive harm, at le Material causing im Material causing ot e listed or exempted.	587 101 es known to the St evels which would i mediate and seriou her toxic effects (ve	3-54-1 -68-8 ate of California to carequire a warning un s toxic effects (very try toxic).	10-30% 10-30% ause cancer, birth der the statute. oxic).		
California Prop 65: CANADA WHMIS (Canada): CEPA DSL: This product has been classified in a the information required by the Con	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re WHMIS Class D-1A: WHMIS Class D-2A All components are accordance with the atrolled Products Re	ane diisocyanate ane diisocyanate ane diisocyanate ans no listed substanc productive harm, at le Material causing im Material causing ot e listed or exempted.	587 101 es known to the St evels which would i mediate and seriou her toxic effects (ve	3-54-1 -68-8 ate of California to carequire a warning un s toxic effects (very try toxic).	10-30% 10-30% ause cancer, birth der the statute. oxic).		
California Prop 65: CANADA WHMIS (Canada): CEPA DSL: This product has been classified in a the information required by the Consistency in the information and the information are producted by the Consistency in the information and information are producted by the Consistency in the information and information are producted by the Consistency in the information and information are producted by the Consistency in the information and information are producted by the Consistency in the information are producted by the Consistency in the information and information are producted by the Consistency in the information and information are producted by the Consistency in the information and information are producted by the Consistency in the information and information are producted by the Consistency in the information are producted by the Con	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re WHMIS Class D-1A: WHMIS Class D-2A All components are accordance with the atrolled Products Re	ane diisocyanate ane diisocyanate ane diisocyanate ans no listed substanc productive harm, at le Material causing im Material causing ot e listed or exempted. hazard criteria of the gulations.	587 101 es known to the St evels which would i mediate and seriou her toxic effects (ve	3-54-1 -68-8 ate of California to carequire a warning un s toxic effects (very try toxic).	10-30% 10-30% ause cancer, birth der the statute. oxic).		
California Prop 65: CANADA WHMIS (Canada): CEPA DSL: This product has been classified in a the information required by the Con INTERNATIONAL LISTS: Australia inventory (AICS):	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re WHMIS Class D-1A: WHMIS Class D-2A All components are accordance with the atrolled Products Re All components are All components are	ane diisocyanate ane di	587 101 es known to the St evels which would i mediate and seriou her toxic effects (ve	3-54-1 -68-8 ate of California to carequire a warning un s toxic effects (very try toxic).	10-30% 10-30% ause cancer, birth der the statute. oxic).		
California Prop 65: CANADA WHMIS (Canada): CEPA DSL: This product has been classified in a the information required by the Consistency (AICS): Australia inventory (AICS): China inventory (IECSC):	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re WHMIS Class D-1A: WHMIS Class D-2A All components are accordance with the atrolled Products Re All components are All components are	ane diisocyanate ane di	587 101 es known to the St evels which would i mediate and seriou her toxic effects (ve	3-54-1 -68-8 ate of California to carequire a warning un s toxic effects (very try toxic).	10-30% 10-30% ause cancer, birth der the statute. oxic).		
California Prop 65: CANADA WHMIS (Canada): CEPA DSL: This product has been classified in a the information required by the Constitution Internation Internation (AICS): Australia inventory (AICS): China inventory (IECSC): Japan inventory:	2,4'-Diphenylmetha 4,4'-Diphenylmetha This product contai defects, or other re WHMIS Class D-1A: WHMIS Class D-2A All components are accordance with the accordance with the accordance All components are All components are All components are All components are	me diisocyanate ane dii	587 101 es known to the St evels which would i mediate and seriou her toxic effects (ve	3-54-1 -68-8 ate of California to carequire a warning un s toxic effects (very try toxic).	10-30% 10-30% ause cancer, birth der the statute. oxic).		

SECTION 16: OTHER INFORMATION

NFPA & HMIS 4 Extreme 3 Serious 2 Moderate 1 Slight 0 No Hazard



National Fire Protection Association (NFPA)





Hazardous Material Information System (HMIS)

HEALTH	2
FLAMMABILIT	Y 1
REACTIVITY	1
SPECIAL	
INFORMATION	I

Note: The customer is responsible for determining the PPE code for this material. At the time of publishing, the NFPA/HMIS and the New GHS scale had opposite scales of severity. Check the most recent publications for current information.

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