1. IDENTIFICATION

Product Name	URETHANE CO-REACTANT
Product Code	7821
Document ID	G7821
Revision Number	1
Prior Version Date	None
Intended Use	Urethane Paint Hardener/Catalyst
Restrictions On Use	For Industrial Use Only
Chemical Family	Urethane Co-Reactant
Chemical Manufacturer / Importer	NEOGARD® - a Division of JONES-BLAIR® Company, LLC
	2728 Empire Central
	Dallas, TX 75235
	1-214-353-1600
Emergency Telephone Number:	ChemTrec Center 1-800-424-9300
	International: 703-527-3887

2. HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

Hazard Pictograms	
GHS Classification	Respiratory Sensitisation Category 1A Skin Sensitisation Category 1 Skin Corrosion/Irritation Category 2 Serious Eye Damage/Eye Irritation Category 2 Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3 Acute Toxicity - Inhalation Dust / Mist Category 4
Signal Word	Danger
Hazard Statements	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.
Precautionary Statements	
Prevention	Avoid breathing dust, fume, mist, vapours or spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing, eye protection and face protection. In case of inadequate ventilation wear respiratory protection.
Response	IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or physician if you feel unwell. If skin irritation or rash occurs: Get medical attention. If eye

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	irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Take off contaminated clothing and wash before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards Not Otherwise Classified (HNOC)	Not applicable

Additional Information

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Component	CAS #	<u>%</u>	
4,4'-DIPHENYLMETHANE DIISOCYANATE	101-68-8	50 - 70	
Diphenylmethane-2,4'-diisocyanate	5873-54-1	10 - 30	

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Inhalation Eye Contact Skin Contact Ingestion	Remove individual to fresh air after an airborne exposure if any symptoms develop as a precautionary measure. If breathing difficulty persists or occurs later, consult a physician and have MSDS available. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately. Wash with soap and water. Get medical attention if irritation develops or persists. If swallowed, do not induce vomiting. Get medical attention immediately.		
Most Important Acute Sympt and Effects	ptoms Not Available		
Most Important Delayed Syn and Effects	nptoms N	ot Available	
Special treatment needed:	Ν	o additional first aid information available	
5. FIRE-FIGHTING MEASURE	S		
Suitable Extinguishing Media	a	Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.	
Unsuitable Extinguishing Me		No data available	
Fire and/or Explosion Hazards Hazardous Combustion Products		Not applicable Hydrogen cyanide, Carbon dioxide, Carbon monoxide, Nitrogen	
		containing gases, Isocyanates, Isocyanic Acid	
Special Protective Equipment and Precautions for Fire-Fighters		Do not enter fire area without proper protection including self- contained breathing apparatus and full protective equipment.	
6. ACCIDENTAL RELEASE M	IEASURES		
Personal Precautions, Prote Equipment and Emergency I		Follow personal protective equipment recommendations found in Section VIII of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including the material spilled, the quantity of the spill, the area in which the spill	

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Methods and Material for Containment and Cleaning Up	occurred. See MSDS sections III, XIII and XV for disposal considerations. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Dike with suitable absorbent material Gather and store in a sealed container pending disposal.	
7. HANDLING AND STORAGE		
Precautions for Safe Handling	Overexposure may be harmful. As with all chemicals, good industrial	

Conditions for Safe Storage Materials to Avoid/Chemical Incompatibility Overexposure may be harmful. As with all chemicals, good industrial hygiene practices should be followed when handling this material. Store in a cool dry place. Keep container(s) closed. Water, Alcohols, Amines, Acids, Caustics (bases, alkalis)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Chemical Component	<u>OSHA PEL</u>	ACGIH TLV-TWA	ACGIH STEL
4,4'-DIPHENYLMETHANE DIISOCYANATE		0.005 ppm TWA	

Appropriate Engineering Controls Respiratory Protection	Local exhaust ventilation or other engineering controls may be required when handling or using this product to avoid overexposure. General or local exhaust ventilation is the preferred means of protection. In cases where ventilation is inadequate, respiratory protection may be required to avoid overexposure. Follow respirator manufacturer's directions for respirator use. For poorly ventilated areas or during spray application use NIOSH approved supplied air respirator unless air monitoring demonstrates vapor/mist levels below applicable limits. When monomeric isocyanate concentrations are below 0.05 ppm (10 times the 8 hour TWA exposure limit), an appropriate combination organic vapor and particulate respirator (NIOSH approved) may be appropriate. An end-of-service-life Indicator (ESLI) or a change schedule is mandatory.
Eye Protection Skin Protection	Wear safety glasses with side shields when handling this product. Avoid all skin contact by covering as much of the exposed skin area as possible with appropriate clothing to prevent skin contact. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Clothing suitable to prevent skin contact.
General Hygiene Conditions	As with all chemicals, good industrial hygiene practices should be followed when handling this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical State	Liquid
Color	Colorless to pale yellow
Odor	No data available
Odor Threshold	No data available
рН	No data available
Melting Point/Freezing Point (℉/℃)	No data available / No data available
Initial Boiling Point and Boiling Range	
Low (Ŧ)	No data available
Flash Point (年/℃)	350 / 177
Flammability (solid, gas)	No data available
Upper Flammable/Explosive Limit	No data available

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Lower Flammable/Explosive Limit Vapor Density Relative Density Solubility in Water Partition coefficient: n-octanol/water Auto-ignition Temperature Decomposition Temperature: Volatiles, % by volume Volatiles, % by volume Volatiles, % by weight Volatile Organic Chemicals (g/L) (Regulatory, Calculated) (Actual, Calculated) Density	No data available ~ 8.50 (air = 1) 1.005 Reacts slowly with water. No data available No data available No data available 0.00 0.00 0.00 0.00 9.90 - 10.10 lbs./Gal	
-	9.90 - 10.10 IDS./Gai	
10. STABILITY AND REACTIVITY Chemical stability Possibility of Hazardous Reactions Conditions to Avoid	Stable under normal conditions. No data available Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other	
Incompatible Materials Hazardous Decomposition Products	sources of ignition. Water, Alcohols, Amines, Acids, Caustics (bases, alkalis) Hydrogen cyanide, Carbon dioxide, Carbon monoxide, Nitrogen containing gases, Isocyanates, Isocyanic Acid	
11. TOXICOLOGICAL INFORMATION		
Immediate (Acute) Health Effects by F		
Skin Contact	Sensitizer. Avoid exposure. If sensitized, repeated exposures will result in irritation, reddening, and rashes even for very low exposures.	
<u>Long-Term (Chronic) Health Effects</u> Inhalation	Isocyanate vapors or mist at concentrations above the TLV can irritate the mucous membranes in the respiratory tract causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function. Exposure well above the TLV may lead to generally reversible bronchitis, bronchial spasm and pulmonary edema. Repeated overexposure causes sensitization in some individuals resulting in asthma-like symptoms on subsequent exposures below the TLV. Persons with preexisting bronchial hyperactivity can respond to concentrations below the TLV with similar symptoms as well as an asthma attack.	
Skin Contact	Prolonged contact may cause an allergic skin reaction.	
Product Toxicology Data		
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Component Toxicology Data

Chemical Component	Oral LD50	Dermal LD50	Inhalation LC50
4,4'-DIPHENYLMETHANE	Oral LD50 Rat > 10,000	Dermal LD50 Rabbit >	Inhalation LC50 (4h) Rat
DIISOCYANATE	mg/kg	9400 mg/kg	0.49 mg/L
MDI Hamanalumar	Oral LD50 Rat > 5000	Dermal LD50 Rabbit >	
MDI Homopolymer	mg/kg	9400 mg/kg	
Diphenylmethane-2,4'-		Dermal LD50 Rabbit >	Inhalation LC50 (4h) Rat
diisocyanate		9400 mg/kg	0.49 mg/L

Carcinogen Information

Chemical Name

IARC Carcinogen

OSHA Carcinogen

NTP Carcinogen

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4,4'-DIPHENYLMETHANE DIISOCYANATE	3			
12. ECOLOGICAL INFORMA	TION			
Ecotoxicity (aquatic and	No data av	ailable		
terrestrial, where available) Mobility in soil	No data av	ailable		
13. DISPOSAL CONSIDERA	TIONS			
Safe Handling of Waste		Defer to other and	tions of this SDS to dotorming	the toxicity and physical
Sale nanuling of waste		characteristics of th	tions of this SDS to determine he material to determine the p lisposal in compliance with ap	proper waste
14. TRANSPORT INFORMAT	ION			
This section provides basic sh details. Refer to all applicable requirements and restrictions.	regulations for			
DOT Basic Description:	Paint Related	Material, Not-Reg	ulated	
Marine Pollutant:	No			
15. REGULATORY INFORMA	ATION			
	nents of this pr notification req		ted on the TSCA Inventory; o	r, are not subject to the
Regulated Components				
SARA EHS Chemicals		<u>CAS #</u>	<u>%</u>	
Furan		110-00-9	< 10 ppm	
Propylene oxide		75-56-9	< 0.1 ppm	
CERCLA				
Methylene diisocyanate		101-68-8	50 - 70	
SARA 313				
Methylenebis(phenylisocyana	ate) (MDI)	101-68-8	50 - 70	
	Y Y N N			
U.S. State Regulations:				
California Prop 65 Chemical	s			
Cancer		<u>CAS #</u>	<u>%</u>	
Furan Acetaldehyde		110-00-9 75-07-0	< 10 ppm	
Cobalt and cobalt compounds	5	7440-48-4	< 1 ppm < 1 ppm	
Propylene oxide Reproductive	-	75-56-9	< 0.1 ppm	

Not applicable	
Canadian Regulations: CEPA DSL:	The components of this product ARE listed on the Canadian Domestic Substances List.
WHMIS Hazard Class:	D2A
16. OTHER INFORMATION	
Revision Date Disclaimer	07-31-2015 This SDS has been prepared in accordance with the OSHA Hazard Communication
	Standard (29 CFR 1910.1200) and Canada's Controlled Product Regulations (CPR). To the best of our knowledge the information contained herein is accurate. Determination of safe handling, application and use of this material is the responsibility of the end user. This information is furnished without warranty, expressed or implied.