



MATERIAL SAFETY DATA SHEET

DSM NeoResins
730 Main Street
Wilmington, MA 01887-3386 USA
Phone: 978-658-6600
Fax: 978-657-7978

Issued:

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: Uradur 1190
Chemical Family: Moisture Cure Polyurethane Polymer
Application: Coating Solution
Prepared By: Health, Safety and Environment Department
HMIS Classification: Health: 3* Flammability: 1 Physical Hazard: 1
HMIS Ratings: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe
(* Chronic Health Hazard)

For Chemical Emergency

Chemtrec Day & Night International 800-424-9300
703-527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT NAME/ CAS NUMBER	WEIGHT %	OSHA PEL	ACGIH TLV (8 hr.)
Trade Secret Component:	70 to 100	N/A	N/A
Dicyclohexylmethane-4,4'-Diisocyanate 5124-30-1	10 to 15	N/A	0.005 ppm

Other Information: Not Applicable

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER: Clear to amber Combustible Liquid and Vapor. Contains monomeric H12MDI - May cause allergic respiratory reaction; Harmful if inhaled; Causes respiratory tract irritation; Skin sensitizer; Causes skin irritation; May cause allergic skin reaction; Causes eye irritation; Harmful if swallowed; May cause lung damage; Closed containers may explode under extreme heat or when contaminated with water; Use cold water spray to cool fire-exposed containers to minimize the risk of rupture; Toxic gases / fumes are given off during burning or thermal decomposition.

Inhalation: Slightly toxic. May be harmful if inhaled. May cause lung sensitization, and allergic reaction, which becomes evident on re-exposure to this material. Extremely high vapor concentration may cause lung damage. Possible discomfort: irritation of mucous membranes of the mouth, throat, and digestive tract.

Skin Contact: May cause severe skin irritation. Contains a component which is a known or suspected skin sensitizer.

Eye Contact: Irritating. May cause tearing, reddening and/or swelling. may cause slight corneal injury.
Ingestion: Aspiration hazard if swallowed - can enter lungs and cause damage. May cause irritation of the mucous membranes of the mouth, throat, and digestive tract.

4. FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.
Skin Contact: For skin contact, wipe away excess material with dry towel. Then wash affected areas with plenty of water, and soap if available, for several minutes. Get medical attention if irritation occurs. Remove contaminated clothing and launder before reuse. Remove contaminated shoes and discard.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.
Ingestion: If swallowed, do NOT induce vomiting. Give victim two glasses of water, Call a physician immediately. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Lowest Component Flash Point (°F): H12MDI = 392 F
Flash Point Method: Pensky-Martens C.C.
FLAMMABILITY (Lowest Component Information)
LFL (% Vol): Not Available
UFL (% Vol): Not Available
Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.
Special Fire Hazards: Containers can rupture in a fire releasing toxic and corrosive gases.
Special Exposure Hazards: During a fire, H12MDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion.
Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.
NFPA Rating: Health: 3 Flammability: 1 Reactivity: 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear self-contained breathing apparatus in enclosed areas. Use Appropriate protective equipment. (See Section 8)
Environmental Precautions: Prevent from entering sewers, waterways or low areas. Prevent contamination of soil.
Spill Procedures: Remove all sources of ignition and ventilate the area. Soak up residue with an absorbent such as clay or sand. Place in a non-leaking container for proper disposal according to Federal, State, and Local regulations. Clean up spill area with a decontamination solution made up of 50% isopropyl alcohol, 45% water, and 5% concentrated ammonia solution. Solution should cover the area for at least an hour. Allow for ventilation of containers with spill clean up as CO2 generation will occur with clean up solution.

7. HANDLING AND STORAGE

NORMAL HANDLING: Wear appropriate protective equipment. See Section 8 for normal handling recommendations. Avoid contact with eyes, skin, and clothing. Use in well ventilated area. Ground and bond containers before transferring liquid.

STORAGE RECOMMENDATIONS: Keep in cool, dry, ventilated storage and in closed containers. Store below 50C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation designed for explosive atmospheres. Good mechanical ventilation is necessary to remove fumes from work place to reduce fire and health hazards. Wear safety glasses or chemical goggles and chemical resistant gloves.

Respiratory Protection: In operations where the exposure limits can be exceeded, wear a NIOSH approved respirator selected by a technically qualified person. If a respirator is worn, OSHA requires compliance with its respiratory protection program (29 CFR 1910.134).

Eyes: Wear safety glasses or goggles to protect against exposure.

Gloves: Nitrile gloves. Dispose of gloves after use. Precautions should be taken to prevent contamination of inside of gloves.

Protective Clothing: Long sleeved clothing and Apron

Hygienic Work Practices: Use proper ventilation. Follow good industrial chemical hygiene practices. Safety showers and eyewash stations should be available. Educate and train employees in safe use of product.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: CLEAR TO AMBER

Odor: STRONG, PUNGENT

% Solids by Weight: 100 %

% Volatile by Volume: 0 %

pH: Not Determined

Specific Gravity: 1.0081

Density: 8.4 lbs./gallon

Solubility in Water: Not Determined

Molecular Weight: Not Determined

VOCs (lbs/gallon): 0

Evaporation Rate (Highest Component Information): Not Determined

Boiling Point (°F) (Lowest Component Information): Not determined.

Flash Point (°F/C) (Lowest Component Information): H12MDI = 392 F

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of handling, use and transportation.

10. STABILITY AND REACTIVITY

Hazardous Polymerization:	Will not occur under normal conditions. Avoid contact with water or moisture. Polymerization will occur releasing CO ₂ . Pressure buildup in closed container may occur
Conditions to Avoid:	Keep away from any contact with water. Excessive heat.
Materials to Avoid:	Avoid contact with Moisture and water as polymerization will occur to release CO ₂ which may pressurize non-vented containers. Avoid contact with alcohols, amines, acids, strong oxidizing agents, strong bases.
Hazardous Decomposition Products:	Combustion of the dried polymer may release : Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, Traces of HCN.
Additional Guidelines:	Avoid contact with water or moisture. Polymerization will occur releasing CO ₂ . Pressure buildup in closed container may occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects:	Acute Health Effects of this product have not been determined. The following information is available on major components: H12MDI - LD ₅₀ , Oral-Rat 9900 mg/kg; LD ₅₀ , Dermal-Rat >10000 mg/kg; LD ₅₀ Inhalation-Rat 0.29 - 0.30 mg/l / 4 hr. Toxic by inhalation of aerosols.
Chronic Effects:	Chronic Health Effects of this product have not been determined. The following information is available on major components: H12MDI - No additional test data found for this product.
Aggravated Conditions:	Not determined.
Carcinogenicity:	Carcinogenic effects of this product have not been determined. The following information is available on major components: H12MDI - Is not listed by NTP, IARC or regulated as a carcinogen by OSHA.
Reproductive/Developmental Toxicity:	Reproductive / Developmental health effects of this product have not been determined. The following information is available on major components: H12MDI - No additional test data found for this product.
Mutagenicity:	Mutagenicity of this product has not been determined. The following information is available on major components: H12MDI - Ames test negative for mutagenicity with and without liver enzyme activation.
Other:	None known.

12. ECOLOGICAL INFORMATION

Dicyclohexylmethane-4,4'-Diisocyanate 5124-30-1 (10 to 15)

Freshwater Fish Species Data	1.2 mg/L LC ₅₀ Brachydanio rerio 96 h
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13. DISPOSAL CONSIDERATIONS

Other Disposal Considerations:	Do not dump into any sewers, on the ground or into any body of water.
Contaminated Packaging:	Empty drums may contain harmful vapors and residue. If empty container retains product residues, all label precautions must be observed. Transport with all closures in place. Dispose according to national or local regulations.
RCRA Status: (Classification applies to the product as sold.)	Not determined.

14. TRANSPORT INFORMATION

DOT:

DOT Shipping Name: ISOCYANATES, TOXIC, n.o.s. (4,4'-Methylene Diphenylisocyanate)
DOT Information: Class 9, UN3082, PG III
DOT Label:
DOT ERG:

15. REGULATORY INFORMATION

U.S. REGULATORY RULES

TSCA Inventory Status: All components are included in the EPA Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

INGREDIENT NAME/ CAS NUMBER	CERCLA Reportable Quantity	CERCLA/SARA - 302 Ext. Haz. Substances	TSCA - Sect. 12(b) Export Notification	SARA 313 Chemicals
Trade Secret Component: (70 to 100)	N/A	N/A	Listed	
Dicyclohexylmethane-4,4'- Diisocyanate 5124-30-1 (10 to 15)	N/A	N/A	Not Listed.	1.0 % de minimis concentration

STATE REGULATIONS

PROPOSITION 65 STATUS: No components present in this product are known to the State of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Water and Toxic Enforcement Act of 1986.

INGREDIENT NAME/ CAS NUMBER	RI Hazardous Substance List	MN Right to Know List	NJ Right to Know List	MA Right to Know List	PA Right to Know List
Trade Secret Component: (70 to 100)	Not Present	Not Present	Not present	Not Present	Not Present
Dicyclohexylmethane-4,4'- Diisocyanate 5124-30-1 (10 to 15)	Toxic	Present	sn 1251	Present	Present

CANADIAN REGULATIONS

Canadian Inventory: This product contains one or more chemicals not listed on the Canadian DSL.
WHMIS Hazard Classification: Not determined



OTHER REGULATIONS

16. OTHER INFORMATION

The following has been revised since the last issue of this MSDS: New MSDS format

Label Number: Not determined.

Product Id: B1190

Additional Information:
Important Note:

Not Applicable

This company makes no warranty regarding the safety of this product when used incorrectly.

*****END OF MSDS*****