

SAFETY DATA SHEET PAN-O-CAST

1. CHEMICAL AND COMPANY IDENTIFICATION

Product Identifier: PART A -- SP400702R, SP400711R, SP400745R

Use: Component for Polyurethane RTV Rubber;
Professional/Industrial use

Company: EnvironMolds, LLC
18 Bank Stree, Suite 1, Summit, NJ 07901
Phone Number: 908-273-5401
Emergency Phone: CHEMTREC 1-(800)-424-9300

Email: info@artmolds.com

2. HAZARDS IDENTIFICATION

GHS HAZARD CLASSIFICATION:

| | |
|--|-------------|
| Acute Toxicity—Inhalation | Category 4 |
| Skin Irritation | Category 2 |
| Eye Irritation | Category 2A |
| Respiratory Sensitizer | Category 1 |
| Skin Sensitizer | Category 1 |
| Carcinogenicity | Category 2 |
| Specific Target Organ Toxicity—Repeat Exposure Category 3 (Respiratory Irritation) | |

SIGNAL WORD: DANGER!



HAZARD STATEMENTS:

Causes skin irritation; May cause 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; Suspected of causing cancer.

PRECAUTIONARY STATEMENTS:

Do not handle until all safety precautions have been read and understood; Avoid breathing vapors or mists; Wash thoroughly after handling; Wear protective gloves, protective clothing, eye protection, and face protection; In case of inadequate ventilation, wear respiratory protection; Take off contaminated clothing and wash before reuse.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If exposed or concerned: Get medical attention.

Store in a well ventilated place. Keep container tightly closed.

Dispose of contents and container in accordance with local, state, and federal regulations.

ADDITIONAL INFORMATION

Individuals sensitized to isocyanates should discontinue use. Long-term overexposure to isocyanates may cause lung damage. This is one part of a two-component system. Read and understand the hazard information on part B before using.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL | CAS NO. | WGT.% |
|---------------------------------|------------|--------|
| Toluene Diisocyanate | 26471-62-5 | ≤ 2% |
| Polyether polyol-TDI prepolymer | 9057-91-4 | 75-90% |

4. FIRST AID MEASURES

INHALATION: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. Get immediate medical attention.

SKIN CONTACT: Remove contaminated clothing. Wash contact area with soap and water. Get medical attention if irritation or other symptoms develop. Wash contaminated clothing before reuse.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

INGESTION: Do not induce vomiting. Get immediate medical attention.

MOST IMPORTANT SYMPTOMS/EFFECTS: Causes skin and eye irritation. Vapors or mists may cause respiratory irritation. May cause allergic skin and/or respiratory reaction in sensitized persons. Symptoms include skin rash, wheezing, shortness of breath and other asthma symptoms.

INDICATION OF IMMEDIATE MEDICAL ATTENTION/SPECIAL

TREATMENT: Required for asthmatic symptoms or serious inhalation exposures. Respiratory systems, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Persons sensitized to Diisocyanates should consult a physician before working with respiratory irritants or sensitizers.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

SPECIFIC HAZARDS: Not classified as flammable or combustible. Product will burn under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIREFIGHTERS: Wear approved positive pressure, self-contained breathing apparatus and full body protective clothing.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Remove all ignition sources. Clear non-emergency personnel from the area. Ventilate area. Wear appropriate protective clothing to prevent eye and skin contact and respiratory protection.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Cover with an inert absorbent material and collect into an appropriate container for disposal. Do not seal the container since CO₂ is generated on contact with moisture and dangerous pressure buildup can occur. Decontaminate floor area with a mixture of water plus isopropyl alcohol (25%), household ammonia (15%), and detergent (5%).

7. HANDLING AND STORAGE

HANDLING: Avoid inhalation of vapors and spray mists. Use in well-ventilated areas. Avoid contact with skin and eyes. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

STORAGE: Store indoors at temperatures between 55F and 95F (13C & 35C). Recommended storage in original, unopened containers. Protect from atmospheric moisture and water since TDI reacts with water to form CO₂ leading to potentially dangerous pressure buildup in sealed containers.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: For TDI: 0.02 ppm (C) OSHA PEL; 0.005 ppm TWA ACGIH TLV; 0.02 ppm STEL ACGIH TLV. (PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average)

VENTILATION: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupation exposure limits.

RESPIRATORY PROTECTION: Use an approved respirator with organic vapor cartridges, if needed. Respirator selection and use should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied air respirator.

SKIN PROTECTION: Wear impervious gloves, i.e., butyl or nitrile rubber.

EYE PROTECTION: Wear chemical safety goggles.

ENGINEERING CONTROLS: Eyewash stations; Exhaust ventilation.

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OTHER PROTECTIVE MEASURES: Wear impervious clothing to prevent skin contact and contamination of personal clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear yellow to amber liquid
 Odor: Aromatic, sweet
 Odor Threshold: Not determined
 pH: Not applicable
 Melting Point: No data available
 Boiling Point: No data available
 Flash Point: >350F (177C) estimated
 Evaporation Rate: No data available
 Flammability Limits: No data available
 Vapor Pressure: ≤0.01 mm Hg @ 25C (77F)
 Vapor Density: No data available
 Relative Density: 1.05 @ 25C (77F)
 Solubility: Insoluble in water
 Partition Coefficient: n-octanol/water: Reacts with water
 Auto-ignition Temperature: No data available
 Decomposition Temperature: No data available
 Viscosity: 3,000 to 12,000 cps

10. STABILITY AND REACTIVITY

REACTIVITY: Diisocyanates react with many materials and the rate of reaction increases with temperature. Reaction with water generates carbon dioxide (CO₂) and heat.
CHEMICAL STABILITY: Stable under recommended conditions.
POSSIBILITY OF HAZARDOUS REACTION: Elevated temperatures can cause hazardous polymerization. Polymerization can be catalyzed by strong bases or water. Reaction with water generates carbon dioxide (CO₂), and generates heat and pressure in closed systems.
CONDITIONS TO AVOID: Avoid moisture and temperatures below 55F (13C) and above 95F (35C).
INCOMPATIBLE MATERIALS: Avoid contact with water, acids, bases, alcohols, strong oxidizers, and some metals (e.g., aluminum, zinc, brass, tin, copper)
HAZARDOUS DECOMPOSITION PRODUCTS: Possibly isocyanate vapor, carbon monoxide, nitrogen oxides, and traces of hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

INHALATION: At room temperature, vapors are minimal due to low volatility. Vapors or aerosols may cause respiratory irritation and possibly pulmonary edema, or respiratory sensitization. For individuals sensitized to TDI, exposure may result in allergic respiratory reactions (i.e., coughing, wheezing, difficulty breathing).
INGESTION: Single oral dose toxicity is low. May cause adverse gastrointestinal effects.
SKIN CONTACT: May cause irritation. Repeated skin contact may cause an allergic skin reaction. Studies in animals indicate skin contact may elicit respiratory sensitization.
EYE CONTACT: May cause moderate irritation and temporary corneal injury.
CHRONIC HEALTH EFFECTS: Repeated or prolonged exposure to isocyanates may cause an allergic sensitization of the respiratory tract causing an asthma-like response upon re-exposure. Repeated overexposure to isocyanates has been associated with decreased lung function. Repeated or prolonged dermal contact with this product may cause allergic skin sensitization in some individuals. No test data. Product is not expected to be a mutagen or reproductive toxin.
ACUTE TOXICITY VALUES: For TDI: Oral rat LD₅₀>2,000 mg/kg; Dermal rabbit LD₅₀>9,400 mg/kg; Inhalation rat LC₅₀ 0.48 mg/L/1hr (aerosol) (equivalent .24 mg/L/4 hr). Calculated ATE_{mix} LC₅₀ 12 mg/L/4 hr.
CARCINOGENICITY: TDI is an IARC 2B carcinogen and classified as reasonably anticipated to be a human carcinogen by NTP. No other ingredients are classified as carcinogens by IARC, NTP or OSHA.
SPECIFIC TARGET ORGAN TOXICITY: Single Exposure: Classified as STOTSE Category 3 for respiratory irritation. Repeat Exposure: Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to TDI aerosols.

12. ECOLOGICAL INFORMATION

Reacts with water to form insoluble polyureas. Limited movement in aquatic and terrestrial environments. Not readily biodegradable and are not expected to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations. When exposed to moisture, product forms a non-hazardous, inert solid. This product is not an RCRA hazardous waste (per 40 CFR 261) in the U.S.

14. TRANSPORT INFORMATION

Not regulated for transport in any mode.
EMERGENCY SHIPPING: CHEMTREC 1-(800)-424-9300

15. REGULATORY INFORMATION

| CHEMICAL | CAS NO. | WGT.% |
|----------------------|------------|-------|
| Toluene Diisocyanate | 26471-62-5 | ≤ 2% |

U.S. Federal Regulatory Information

CERCLA 103 Reportable Quantity: TDI is 100 lbs. Some States have more stringent requirements. Report spills in accordance with local and state regulations.
SARA Title III Section 311, 312: Acute; Chronic.
SARA (313) Toxic Chemicals: Product contains the following chemicals subject for reporting.

EPA Toxic Substances Control Act (TSCA): All components of this product are listed on TSCA inventory.

STATE Regulations

CALIFORNIA PROPOSITION 65:
 Warning! This product contains a chemical known to the State of California to cause cancer—TDI.

16. OTHER INFORMATION

Training Advice: Train personnel using this product in proper chemical handling, engineering controls and protective equipment.

Recommended Uses and Restrictions: This product is intended for industrial/professional use only.

SDS Revision Notes: Updating MSDS to SDS format.

Disclaimer: These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

Date Prepared/Revised: July 8, 2015

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1. CHEMICAL AND COMPANY IDENTIFICATION

Product Identifier: PART B -- SP400702R, SP400711R, SP400745R

Use: Component for Polyurethane RTV Rubber; Professional/Industrial use

Company: EnvironMolds, LLC
18 Bank Stree, Suite 1, Summit, NJ 07901

Phone Number: 908-273-5401
Emergency Phone: CHEMTREC 1-(800)-424-9300

Email: silpak@aol.com

2. HAZARDS IDENTIFICATION

GHS HAZARD CLASSIFICATION:

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| Acute Toxicity—Inhalation | Category 4 |
| Skin Irritation | Category 2 |
| Eye Irritation | Category 2 |
| Respiratory Sensitization | Category 1 |
| Skin Sensitization | Category 1 |
| Carcinogenicity | Category 2 |
| Specific Target Organ Toxicity—Repeat Exposure Category 3 (Respiratory Irritation) | |

SIGNAL WORD: WARNING!



Contains Diethyltoluenediamine

HAZARD STATEMENTS:

May cause damage to pancreas through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS:

Do not breathe vapors. Get medical advice if feeling unwell.

Dispose of contents and container in accordance with local, state, and federal regulations.

ADDITIONAL INFORMATION:

This is one part of a two-component system. Read and understand the hazard information on part A before using.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL | CAS NO. | WGT. % |
|-----------------------|------------|--------|
| Diethyltoluenediamine | 68479-98-1 | 1-3% |

4. FIRST AID MEASURES

INHALATION: Remove person to fresh air. Get immediate medical attention if symptoms persist.

SKIN CONTACT: Remove contaminated clothing. Wash contact area with soap and water. Get medical attention if irritation or other symptoms develop.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists

INGESTION: Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

MOST IMPORTANT SYMPTOMS/EFFECTS: May cause skin and eye irritation. May be harmful if swallowed.

INDICATION OF IMMEDIATE MEDICAL ATTENTION/SPECIAL TREATMENT: Immediate medical attention is not required.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

SPECIFIC HAZARDS: Not classified as flammable or combustible. Product will burn under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIREFIGHTERS: Wear approved positive pressure, self-contained breathing apparatus and full body protective clothing. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact. Avoid breathing vapors.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

7. HANDLING AND STORAGE

HANDLING: Use in adequate ventilated areas. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

STORAGE: Store indoors at temperatures below 120F (49C). Recommended storage in original, unopened containers. Protect from atmospheric moisture and water. Keep containers sealed and closed.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: None established (PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average)

VENTILATION: Use with adequate general or local exhaust ventilation to minimize exposure levels.

RESPIRATORY PROTECTION: Use an approved respirator with organic vapor cartridges, if needed. Respirator selection and use should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied air respirator.

SKIN PROTECTION: Wear impervious gloves, i.e., butyl or nitrile rubber.

EYE PROTECTION: Wear chemical safety goggles.

ENGINEERING CONTROLS: Eyewash stations; Exhaust ventilation.

OTHER PROTECTIVE MEASURES: Wear impervious clothing to prevent skin contact and contamination of personal clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---------------------------|
| Appearance: | Varied colored liquid |
| Odor: | Slightly pungent |
| Odor Threshold: | No data available |
| pH: | Not applicable |
| Melting Point: | No data available |
| Boiling Point: | No data available |
| Flash Point: | >350F (177C) |
| Evaporation Rate: | No data available |
| Flammability Limits: | No data available |
| Vapor Pressure: | ≤0.01 mm Hg @ 25C (77F) |
| Vapor Density: | No data available |
| Relative Density: | 1.0 @ 25C (77F) |
| Solubility: | Slightly soluble in water |
| Partition Coefficient: n-octanol/water: | No data available |
| Auto-ignition Temperature: | No data available |
| Decomposition Temperature: | No data available |

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Viscosity: 150-1500 cps

SARA (302) Extremely Hazardous Substances (TPO): None

10. STABILITY AND REACTIVITY

REACTIVITY: Not normally reactive.
CHEMICAL STABILITY: Stable under recommended conditions.
POSSIBILITY OF HAZARDOUS REACTION: Reaction with strong oxidizers generates heat.
CONDITIONS TO AVOID: Avoid excessive heat/temperatures.
INCOMPATIBLE MATERIALS: Avoid contact strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will generate oxides of carbon and nitrogen, organic acids, and other toxic organic compounds.

11. TOXICOLOGICAL INFORMATION

INHALATION: Vapors and mists may cause respiratory irritation.
INGESTION: Single oral dose toxicity is low. No harmful effects anticipated from ingesting small amounts incidental to normal handling. Large amounts may cause gastrointestinal effects.
SKIN CONTACT: May cause mild irritation.
EYE CONTACT: May cause moderate irritation.
CHRONIC HEALTH EFFECTS: Not determined. But, based on laboratory animal studies, diethyltoluenediamine ingredient may cause damage to the pancreas, liver, thyroid and eyes through prolonged exposure.
ACUTE TOXICITY VALUES: For Diethyltoluenediamine: Oral rat LD₅₀ 738 mg/kg; Skin rabbit LD₅₀>2000 mg/kg; Inhalation rat LC₅₀ 2.45 mg/L/1hr.
SKIN CORROSION/IRRITATION: Relevant components are not skin irritants.
EYE DAMAGE/IRRITATION: Relevant compounds are not eye irritants.
RESPIRATORY IRRITATION: Relevant components are classified as respiratory irritants.
RESPIRATORY SENSITIZATION: Relevant components are not respiratory sensitizers.
SKIN SENSITIZATION: Components are not skin sensitizers.
GERM CELL MUTAGENICITY: Components are not mutagens.
CARCINOGENICITY: Components are not carcinogens.
REPRODUCTIVE TOXICITY: Components are not reproductive toxins.
SPECIFIC TARGET ORGAN TOXICITY: Single Exposure: No data available. Repeat Exposure: Diethyltoluenediamine may cause damage to the pancreas through repeated or prolonged exposure.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: One ingredient is harmful to aquatic organisms: diethyltoluenediamine (Fish LC₅₀ 200 mg/L/48 hr; Daphnia EC₅₀ .5mg/L/48 hr). But based on Additivity Formula, product is not classified as hazardous to the aquatic environment.
PERSISTENCE AND DEGRADABILITY: Not readily biodegradable.
BIOACCUMULATIVE POTENTIAL: Not expected to bioaccumulate.
MOBILITY IN SOIL: No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be made in accordance with federal, state and local regulations. Incineration recommended in approved incinerator according to federal, state, and local regulations.

14. TRANSPORT INFORMATION

Not regulated for transport in any mode.
EMERGENCY SHIPPING: CHEMTREC 1-(800)-424-9300

15. REGULATORY INFORMATION

U.S. Federal Regulatory Information

CERCLA 103 Reportable Quantity: Not subject to reporting. Some States have more stringent requirements. Report spills in accordance with local and state regulations.

SARA Title III Section 311, 312: Chronic Health.
SARA (313) Toxic Chemicals: Product contains no chemicals subject for reporting.

EPA Toxic Substances Control Act (TSCA): All components of this product are listed on TSCA.

STATE Regulations

CALIFORNIA PROPOSITION 65: This product does not contain substances known to the State of California to cause cancer and/or reproductive harm.

16. OTHER INFORMATION

Training Advice: Train personnel using this product in proper chemical handling, engineering controls and protective equipment.

Recommended Uses and Restrictions: This product is intended for industrial/professional use only.

SDS Revision Notes: Updating MSDS to SDS format.

Disclaimer: These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

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