

CR304 Urethane Slab Repair, Part A

Page 1

1 Identification

PRODUCT NAME: CR304 Urethane Slab Repair, Part A

CHEMICAL FAMILY: Polyurethane Isocyanate Prepolymer with Additives

MANUFACTURER / SUPPLIER: Concrete Sealers USA

P.O. Box 1223, Brookfield, WI 53008

info@concretesealersusa.com

888-583-2991

EMERGENCY TELEPHONE: Contact Chemtrec 800-424-9300

NOTE: Chemtrec emergency number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

2 Hazard(s) Identification

Skin Contact: Prolonged or repeated exposure may cause skin irritation and redness. Skin sensitization or allergic reaction (contact dermatitis) may occur in some individuals. May stain skin.

Eye Contact: As a liquid or dust, may cause irritation, inflammation, and/or damage to sensitive eye tissue. Symptoms include watering or discomfort of the eyes. Corneal injury is unlikely.

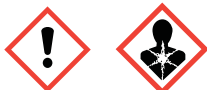
Ingestion: Probable oral toxicity, LD(50) (rat), >10g/kg. Can result in irritation and corrosive action of the mouth, pharynx, esophagus, stomach and digestive tract.

Inhalation: Inhalation of mists and vapors can cause dry throat and cough, dizziness, nausea, headache and fatigue. MDI can induce respiratory irritation with asthma-like symptoms. These symptoms may be immediate or delayed up to several hours after exposure. There are reports that long-term exposure may result in decreased lung function.

Precautionary Statements: Do not handle until all safety precautions have been read and understood. Do not breathe vapors. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Store locked up. Keep away from children. Dispose of contents and container in accordance with applicable local, regional and national regulations.

Signal Word: WARNING

Signal Word: DANGER



Hazard Statement: Chronic: As a result of previous repeated overexposure or a single large dose, certain individuals develop isocyanine sensitization (chemical asthma) or tissue injury in the upper respiratory tract. Animal tests indicate skin contact alone may also lead to allergic respiratory reaction. These effects may be permanent. Any person developing asthmatic reaction or other sensitization should be removed from further exposure.

CR304 Urethane Slab Repair, Part A

2 Hazard(s) Identification (Continued)

Potential Health Effects: At room temperature, MDI vapors are minimal due to low vapor pressure. However, heating, foaming or otherwise dispersing (drumming, venting or pumping) operations may generate more vapor or aerosol concentrations of isocyanate. Excessive exposure may cause irritation of the eyes, upper respiratory tract and lungs. Severe overexposure may lead to pulmonary edema. Respiratory sensitization with asthma like symptoms may occur in susceptible individuals. MDI concentration below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Symptoms may include coughing, dryness of throat, headache, nausea, difficulty breathing and feeling of tightness in the chest. Effects may be delayed. Impaired lung function (decreased ventilators capacity) has been associated with overexposure to isocyanate.

Persons With Known Respiratory or Allergy Problems Must Not Be Exposed to This Product.

Carcinogenicity: MDI and polymeric MDI are not listed by the NTP, IARC or regulated by OSHA as carcinogens. Lung tumors have been observed in laboratory animals exposed to aerosol droplets of MDI/Polymeric MDI (6mg/m3) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects.

3 Composition / Information on Ingredients

INGREDIENT	% BY WEIGHT	TLV	PEL	CAS #
Diphenylmethane 4,4' diisocyanate, MDI	Trade Secret	.005 ppm	.02 ppm	101-68-8
Napthelene	Trade Secret	10 ppm		91-20-3
Petroleum Hydrocarbon	N/E	N/E		64742-94-5

4 First-Aid Measures

Eyes: Open lids wide and flush with large quantities of water for at least 15 minutes. Seek medical attention, preferably an eye specialist.

Skin: Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse, discard shoes. Consult a physician if irritation develops.

Ingestion: Do Not induce vomiting unless directed to do so by medical personnel. Seek medical attention immediatly.

Inhalation: Remove the patient from the contaminated area to fresh air. Administer oxygen or artificial respiration as needed. Call a physician if after effects occur.

Note to Physician: **Eyes:** If cornea is burned, instill antibiotic steroid preparation frequently. **Skin:** If burned, treat as thermal burn. **Ingestion:** No specific antidote. Vomiting is contraindicated because of the irritating nature of the compound. **Inhalation:** Treatment is essentially symptomatic.

5 Fire-Fighting Measures

Flash Point: > 240 °F (COC)

Flammable Limits: LEL – N/D UEL – N/D

Fire Degradation Products: Isocyanate vapor and mist, carbon monoxide, nitrogen oxides and traces of hydrogen cyanide.

Extinguishing Media: Carbon dioxide, dry chemicals, foam and water fog.

Special Fire & Unusual Hazards: Self-contained respirator equipment with full face mask and full protective clothing are required when smoke and fumes are generated. If water is used, use very large quantities. A very vigorous reaction may take place between water and the hot product. Water contamination will produce gas (carbon dioxide). Do not reseal contaminated containers as pressure buildup may rupture them.

Explosion Hazards: Closed containers may rupture due to high temperature and induced pressure.

CR304 Urethane Slab Repair, Part A

6 Accidental Release Measures

Spill: Wear skin, eye and respiratory protection during cleanup. All operations should be performed by personnel familiar with the hazards of the chemicals used. Soak up material with absorbent and shovel into waste container. Cover, but do not seal waste container and remove from work area. Make decontamination solution of .5% liquid detergent and 5% sodium carbonate in water. Treat spill area with decontamination solution, using about 10 parts for each part of spilled material and allow to react for 10 minutes. Carbon dioxide will form, leaving insoluble polymer material. Wash residue into sewer, observing local regulation of discharging insoluble polymer materials.

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Personnel must be properly protected from inhalation of Isocyanate vapors and trained to handle decontamination operation. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. **DO NOT heat or cut empty containers with electric or gas torch. ISOCYANATES** will react with water and generate carbon dioxide. This could result in the rupture of closed containers.

7 Handling and Storage

Storage: Store in tightly sealed containers. Store in a cool, dry, well ventilated area away from heat and open flame. Protect from moisture. Do not allow freezing.

Handling: Avoid contact with skin, eyes, and clothing. Do not take internally. Use personal protective equipment when transferring material to or from drums, totes or other containers. Safety glasses and gloves are the minimum protection. Additional precautions must be used when splash hazards are present.

8 Exposure Controls / Personal Protection

Respiratory Protection: MDI contains reactive isocyanate groups. Avoid breathing vapors. Use adequate ventilation. If material is sprayed or heated and airborne concentrations exceed or are expected to exceed the TLV, use MSHA/ NIOSH approved respirator with full face piece or an air supplied hood.

Ventilation: Good general/local exhaust. Heating or spraying may require good mechanical ventilation and engineering controls.

Protective Gloves: Rubber or polyethylene.

Eye Protection: Chemical splash goggles or safety glasses with full mask.

Protective Clothing: Wear impervious clothing and gloves. Materials may include butyl rubber, nitrile rubber or neoprene rubber. **Work with an eyewash station nearby.** Wash contaminated clothing before reuse.

Protective Equipment: Disposable containers and paper on work area. Use of barrier cream recommended. Use appropriate equipment to prevent eye or skin contact.

9 Physical and Chemical Properties

Vapor Density: > 1 (air = 1)

Boiling Point: > 350°F

Flash Point: > 240°F (COC)

Solubility in Water: Reacts with Water

SP GR: 1.0 (water = 1)

Color: Yellow to Brown

% Volatile by Weight: 0

Odor: Mild

Evaporation Rate: < 1 (ether = 1)

Explosive Limits: LEL – N/D UEL – N/D

CR304 Urethane Slab Repair, Part A

Page 4

10 Stability and Reactivity

Stability: This product must be mixed with another component or water (moisture) to react. Excessive heat, fumes, and foam generation can occur if improperly handled. Not sensitive to mechanical impact.

Reactivity: Incompatibility Materials to Avoid: Strong oxidizing agents, acids, metal compounds, water, alcohol.

Hazardous Decomposition Products: Carbon monoxide and dioxide, nitrogen oxides, ammonia. Trace amounts of hydrogen cyanide.

Hazardous Polymerization: May occur with incompatible reactants especially strong bases, water or temperatures over 320°F.

11 Toxicological Information

Toxicological Data: Diphenylmethane 4,4' diisocyanate, MDI

Primary Routes of Entry: Inhalation / skin contact

Oral LD (50): (rat) > 10 g/kg

Other Effects of Overexposure: In a recently completed study, groups of rats were exposed for 6 hours/day, 5 days/week for a lifetime to atmospheres of respirable polymeric MDI aerosol. Tumor incidence, both benign and malignant, and the number of animals with tumors were not different from controls. There were no lung tumors at 1 mg/m³ and no effects at .2 mg/m³. However, at the top level only of 6 mg/m³ there was a significant incidence of a benign tumor of the lung (adenoma) and one malignant tumor (adenocarcinoma). The increased incidence for lung tumors is associated with the prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung that was observed throughout the study.

12 Ecological Information

Comments: No information.

13 Disposal Considerations

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Personal must be properly protected from inhalation of Isocyanate vapors and trained to handle decontamination operation. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. **DO NOT heat or cut empty containers with electric or gas torch.** Refer to RCRA 4 CFR 261 and/or any other appropriate federal, state or local requirements for proper classification information.

Container Disposal: Drums/containers should be decontaminated and either passed to an approved drum recycler or destroyed.

RCRA/EPA Waste Information: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways.

14 Transport Information

DOT (Domestic surface): Shipping name: Diphenylmethane 4,4' diisocyanate mixture. Not regulated (Class 55).

IMO (Ocean): Not restricted.

ICAO (AIR): Not restricted.

CR304 Urethane Slab Repair, Part A

15 Regulatory Information

TSCA Status:

CERCLA Reportable Quantity:

SARA Title III

Section 311/312 Hazard Categories:

Section 313 Toxic Chemicals: Diphenylmethane 4,4' diisocyanate, MDI.

RCRA Status: Under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).

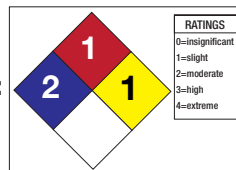
16 Other Information

Other precautions: Harmful if inhaled. Avoid breathing vapors, use with good ventilation. Wash hands thoroughly with soap and water after every use. Toxic fumes are released in fire situations.

All statements, technical information and recommendations contained herein are based upon available scientific test or data which we believe to be reliable since we cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. Concrete Sealers USA makes no warranties, express or implied, and assumes no responsibility in connection with any use of this information.

Personal Protection: C

NFPA Ratings:



HMIS Ratings:



CR304 Urethane Slab Repair, Part B

Page 1

1 Identification

PRODUCT NAME: CR304 Urethane Slab Repair, Part B

CHEMICAL FAMILY: Polyurethane Polyol Blend with Additives

MANUFACTURER / SUPPLIER: Concrete Sealers USA

P.O. Box 1223, Brookfield, WI 53008

info@concretesealersusa.com

888-583-2991

EMERGENCY TELEPHONE: Contact Chemtrec 800-424-9300

NOTE: Chemtrec emergency number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

2 Hazard(s) Identification

Skin Contact: No irritation is likely to develop following short contact periods with skin. Prolonged or repeated exposure can cause skin irritation (reddening, swelling and blistering) or dermatitis in some individuals.

Eye Contact: As a liquid or dust may cause irritation, inflammation of conjunctiva.

Ingestion: Oral toxicity low level, can cause nausea, vomiting, diarrhea, and/or burns in the mouth.

Precautionary Statements: Do not handle until all safety precautions have been read and understood. Do not breathe vapors. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Store locked up. Keep away from children. Dispose of contents and container in accordance with applicable local, regional and national regulations.

Signal Word: WARNING

Hazard Statements:



Causes eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Prolonged exposure can cause skin irritation (reddening, swelling and blistering).

May cause respiratory irritation.

Persons With Known Respiratory or Allergy Problems Must Not Be Exposed to This Product.

Carcinogenicity: The components of this blend are not listed by the NTP, IARC or regulated by OSHA as carcinogens. California Proposition 65: Chemical(s) in this product known to the state of California to cause cancer: NONE. California Proposition 65: Chemical(s) in this product known to the state of California to cause reproductive toxicity: NONE.

CR304 Urethane Slab Repair, Part B

3 Composition / Information on Ingredients

INGREDIENT	% BY WEIGHT	EXPOSURE LIMITS	CAS #
Napthelene	Trade Secret	10 ppm	91-20-3
Petroleum Hydrocarbon	N/E	N/E	64742-94-5

4 First-Aid Measures

Eyes: Open lids wide and flush with large quantities of water for at least 15 minutes. Seek immediate medical attention.

Skin: Remove contaminated clothing and shoes. Wash skin with large quantities of water and soap. Wash clothing before reuse. Consult a physician if irritation continues after washing or if swelling or rash develops.

Ingestion: Oral toxicity low level, can cause nausea, vomiting, diarrhea, and/or burns in the mouth. Consult medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.

5 Fire-Fighting Measures

Flashpoint and Method: > 250°F (method = PMCC) **Flammable Limits:** LEL (%) N/D UEL (%) N/D

Extinguishing Media: Foam, dry chemicals, carbon dioxide, water fog. Where the fire is of major proportions, water spray may also be used. Water or foam may cause frothing if liquid is burning, but it still may be a useful extinguishing agent if carefully applied to the fire.

Protective equipment: In case of fire, avoid breathing smoke, use normal fire fighting equipment including a NIOSH approved, self contained breathing apparatus (SCBA) and protective clothing. Use water to cool fire exposed surfaces and containers. Avoid spreading burning liquid with water used for cooling purposes.

6 Accidental Release Measures

Spill: Evacuate spill area. Remove all sources of flames, heating elements, gas engines, etc. With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent such as clay or vermiculite and transfer to metal waste containers. Notify local health officials and other appropriate agencies if such contamination should occur.

Clean up: Wash down spill area with soap and water to dilute and remove remaining traces of material. Ventilate area to remove the remaining vapors.

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. Refer to RCRA 40 CFR 261 and/or any other appropriate federal, state or local requirements for proper classification information.

CR304 Urethane Slab Repair, Part B

7 Handling and Storage

Storage: When stored between 60°F and 85°F (15° and 30°C) in sealed containers, typical shelf life is 6 months or more from the date of manufacture. Consult technical data sheet for shelf life requirements affecting performance quality. Opened containers must be handled properly to prevent moisture contamination.

Handling: Use personal protective equipment when transferring material to or from drums, totes or other containers. Safety glasses and gloves are the minimum protection. Additional precautions must be used when splash hazards are present. The reaction of polyols and isocyanates generate heat. Contact of the reacting materials with skin or eyes can cause severe burns and may be difficult to remove from the affected areas. Immediately wash affected areas with plenty of water and seek medical attention. In addition, such contact increases the risk of exposure to isocyanate vapors. Do not smoke or use naked lights, open flames, space heaters or other ignition sources near pouring or frothing operations.

8 Exposure Controls / Personal Protection

Respiratory Protection: Respirator must be based on contamination levels of this blend found in the work area. A positive pressure self-contained breathing apparatus can be used in emergencies or other unusual situations. All equipment must be NIOSH/MSHA approved and maintained.

Ventilation: Good general exhaust ventilation is recommended. General/local ventilation typically controls exposure levels very adequately. More aggressive engineering controls or personal protective equipment is required in some applications such as heating and/or spraying. Monitoring is required to determine engineering controls.

Eye Protection: Chemical splash goggles or safety glasses or full face shield must be used consistent with splash hazard present. If vapor exposure causes eye discomfort, use a full face piece respirator or air supplied hood.

Protective Clothing: Wear clothing and gloves resistant to permeation of product. Materials may include butyl rubber, nitrile rubber, neoprene and Saranex coated Tyvek.

**Avoid unnecessary exposure to vapors and mists.
Use protective equipment and work with an eyewash station nearby.**

9 Physical and Chemical Properties

VD: > 1 (AIR = 1)

Color: Black

Odor: Mild

Solubility In Water: N/A

Specific Gravity 1.0 (H2O=1)

Evaporation Rate: Slower than ethyl ether

Boiling Point: > 300°F

Appearance: Liquid

Flash Point: > 250°F (method = PMCC)

10 Stability and Reactivity

Stability: Material is stable when stored in sealed containers under normal conditions. Avoid high temperatures, sparks, flames and extended exposure over 110°F (45°C).

Reactivity: Incompatible with oxidizing materials, isocyanates and acids.

Hazardous Polymerization: Will not occur.

Conditions To Avoid: Heat, open flame and sparks.

CR304 Urethane Slab Repair, Part B

11 Toxicological Information

Toxicological Data: Harmful if inhaled. Toxic fumes are released in fire situations.

Exposure: Heating, spraying, foaming or otherwise mechanically dispersing (drumming, venting or pumping) operations of this blend may generate more vapor or aerosol concentrations of its components.

Persons with known respiratory or allergic problems must not be exposed to this product.

Routes of Entry: Inhalation, skin contact, eye contact, ingestion.

OSHA: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

Carcinogenic Categories:

NTP: Not classified as a carcinogen.

IARC: Not classified as a carcinogen.

OSHA: Not classified as a carcinogen.

12 Ecological Information

Comments: No information.

13 Disposal Considerations

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. Refer to RCRA 4 CFR 261 and/or any other appropriate federal, state or local requirements for proper classification information.

Container Disposal: Drums/containers must be thoroughly drained to process or storage vessels before removal to an appropriate area for subsequent decontamination. Drums/containers must be decontaminated in properly ventilated areas by personnel protected from the inhalation of isocyanate vapors. Spray or pour 1 to 5 gallons of decontamination solution into the drum making sure the walls are well rinsed. Let the drum/container soak unsealed for 48 hours. Pour out the decontamination solution and triple rise the empty container. Puncture or otherwise destroy the rinsed container before disposal. **Do not heat or cut empty containers with electric or gas torch.**

RCRA/EPA Waste Information: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways.

14 Transport Information

DOT (Domestic surface): Shipping name: Compound resin. Not regulated (Class 55).

IMO (Ocean): Not regulated.

ICAO (AIR): Not regulated.

CR304 Urethane Slab Repair, Part B

15 Regulatory Information

OSHA: This product is hazardous under the criteria of the Federal OSHA Hazard Communications Standard 29 CFR 1910.1200.

TSCA: All ingredients are on TSCA inventory.

CERCLA Reportable Quantity: None reported.

SARA Title III Section 302 Extremely Hazard Substances: None.

Section 311/312 Hazard Categories: Immediate Health Hazard, Delayed Health Hazard.

RCRA Status: MDI is not a hazardous waste. However, under RCRA, it is the responsibility of the user of products to determine, at any time of disposal, whether a product meets any of the criteria for hazardous waste. This SDS complies with 29 CFR 1910.1200 hazard communication standard.

16 Other Information

All statements, technical information and recommendations contained herein are based upon available scientific test or data which we believe to be reliable since we cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. Concrete Sealers USA makes no warranties, express or implied, and assumes no responsibility in connection with any use of this information.

