

CR301 Injection Foam, Part A

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1 Identification

PRODUCT NAME: CR301 Injection Foam, Part A

SYNONYM: Aromatic Isocyanate

CHEMICAL FAMILY: Polymeric Diphenylmethane Diisocyanate

MANUFACTURER / SUPPLIER: Concrete Sealers USA

P.O. Box 5464, De Pere, WI 54115

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, dermatitis and in some individuals, sensitization. Skin contact may result in allergic skin reactions or respiratory sensitization but is not expected to result in absorption or amounts sufficient to cause other adverse effects. 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 eyes. Corneal injury is unlikely.

Ingestion: Single dose oral toxicity is considered to be extremely low. Can result in irritation and corrosive action in mouth, stomach tissue and digestive tract.

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.

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.

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2 Hazard(s) Identification (Continued)

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	EXPOSURE LIMITS	CAS #
4,4' Diphenylmethane Diisocyanata (MDI)	Trade Secret	N.E.	101-68-8
Aromatic Hydrocarbon	15 %		64748-94-5

4 First-Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes. Materials containing MDI may react with the moisture of the eye forming a thick material that may be difficult to wash from the eyes. Seek medical attention.

Skin: Wash off in flowing water or shower. Remove and wash contaminated clothing and discard contaminated shoes. Seek medical attention if redness, itching or a burning sensation develops or persists after the area is washed.

Ingestion: If swallowed, rinse mouth with water. Give 1 or 2 glasses of water to drink. Do not induce vomiting. Seek immediate medical attention. 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.

NOTE TO PHYSICIAN:

Eyes: Strain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapors have produced reversible corneal epithelial edema impairing vision.

Skin: This material is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn.

Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated of the irritating nature of this product.

This material is designed and intended to be pumped, not sprayed. MDI becomes more hazardous when atomized (sprayed). The following data is derived from tests performed when the material is sprayed and should be considered but may not apply to pumping operations as recommended by the manufacturer. Harmful if inhaled. Toxic fumes are released in fire situations. Dark brown liquid. Mild odor.

5 Fire-Fighting Measures

Fire Degradation Products: Toxic fumes are released in fire situations. Combustion may produce carbon dioxide, carbon monoxide and nitrogen oxides.

Extinguishing Media: Use dry chemical foam, carbon dioxide, halogenated agents or water.

Protective equipment: Wear positive pressure self contained breathing apparatus with full face piece and full protective clothing.

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6 Accidental Release Measures

Spill: Evacuate spill area. 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. Saturate with water or decontamination solution below, but do not seal the container with the isocyanate mixture. Larger quantities of liquid may be transferred directly to drums for disposal.

Note: Isocyanate will react with water and generate carbon dioxide. This could result in the rupture of any closed container.

Clean up: The area should then be flushed with a decontamination solution. The decontamination solution is a 5-10% mixture of sodium carbonate and .5% liquid detergent in water solution or a 3% concentrated ammonium hydroxide and .5% liquid detergent in water. Use 10 parts decontamination solution to 1 part spilled material. If the ammonium hydroxide solution is used, ammonia will be evolved as a vapor. Use caution to avoid exposure to high concentrations of ammonia. Allow to stand for 48 hours letting evolved carbon dioxide to escape.

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.

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. Should freezing occur, the material must be thawed thoroughly and mixed until uniform. 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.

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8 Exposure Controls / Personal Protection

Exposure: MDI contains reactive isocyanate groups. Use with adequate ventilation to keep airborne isocyanate level below TLV or 0.005 ppm TWA (ACGIH) and PEL 0.02 ppm ceiling (OSHA). These control limits do not apply to previously sensitized individuals or to individuals with existing respiratory disease, such as bronchitis, emphysema or asthma. Respiratory protection may be needed where material is heated, sprayed or used in confined space, or if TLV is exceeded. Never try to detect MDI vapor by odor. **Persons with known respiratory or allergic problems must not be exposed to this product.**

Ventilation: MDI has a very low vapor pressure at room temperature. General/local ventilation typically controls exposure levels very adequately. More aggressive engineering controls or personal protective equipment may be required in some applications such as heating. Monitoring is required to determine engineering controls.

Respiratory Protection: A supplied air, full face piece, positive pressure or continuous flow respirator or a supplied air hood is required when airborne concentrations are unknown or exceed threshold values. 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. Air purifying (cartridge type) respirators are not approved for protections against isocyanates.

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 impervious to MDI under conditions of use. Materials may include butyl rubber, nitrile rubber, neoprene and Saranex coated Tyvek.

9 Physical and Chemical Properties

Flash Point: 398°F (method= PMCC)

Flammable Limits: LEL (%) N/D

UEL: (%) N/D

Boiling Point: 406°F 5 mm Hg

Density: 10.31 LB/GAL

VD: 1.5 (MDI) AIR = 1

VP: < 10 5 (NW HG)

% Volatile by wt: N/D

Evaporation Rate: Slower than ethyl ether

Solubility in Water: Resin reacts slowly to liberate CO2 gas.

10 Stability and Reactivity

Stability: Polyisocyanates are highly reactive chemicals and should be handled and stored in a way to avoid exposure to many common substances, including water and moisture. Material is stable when stored in sealed containers under normal conditions. Avoid extended exposure over 110°F (45°C).

Hazardous Polymerization: May occur with incompatible reactants especially strong bases, water or temperatures over 320°F (160°C). Possible evolution of carbon dioxide gas from overheating or exposure to contaminants may rupture closed containers.

Reactivity: Reacts with water, acids, bases, alcohols, metal compounds. The reaction with water is very slow under 102°F (50°C), but is accelerated at higher temperatures and in the presence of alkalis, tertiary amines and metal compounds. Some reactions can be vigorous or even violent.

CR301 Injection Foam, Part A

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11 Toxicological Information

Toxicity data for 4,4' Diphenylmethane Diisocyanata (MDI)**Acute Inhalation Toxicity:** LC50: 369 mg/m³, 4 hrs (rat male/female)**Acute Inhalation Toxicity:** LC50: >2240 mg/m³, aerosol (rat)**Acute Dermal Toxicity:** > 10,000 mg/kg (rabbit)**Skin Irritation:** (rabbit) draize test: Slightly irritating**Eye Irritation:** (rabbit) draize test: Slightly irritating**Sensitization Dermal:** (guinea pig) maximization test (GPMT) inhalation: Sensitizer**Repeated Dose Toxicity:** 90 days, inhalation: NOAEL: 0.3 mg/m³, (rat, male/female, 18 hrs/days, 5 days/week): Irritation to lungs and nasal cavity**Mutagenicity:** Genetic toxicity in Vitro: Ames: (samonella typhimurium, metabolic activation: with/without) Positive and Negative results were reported. The use of certain solvents which rapidly hydrolyze diisocyanates is suspected of producing the positive Mutagenicity results.**Carcinogenicity:** (rat), female, inhalation, 2 years, 17 hrs/day, 5 days/week: Negative.**Inhalation:** 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.

This material is designed and intended to be pumped, not sprayed. MDI becomes more hazardous when atomized (sprayed). The following data is derived from tests performed when the material is sprayed and should be considered but may not apply to pumping operations as recommended by the manufacturer. Harmful if inhaled. Toxic fumes are released in fire situations.

12 Ecological Information

Signal Word: WARNING**Aquatic Toxicity:****Acute And Prolonged Toxicity To Fish:** LC50: > 500 mg/l (Zebra fish(Brachydanio rerio), 24 hrs)**Acute And Prolonged Toxicity To Fish:** LC50: > 500 mg/l (Water flea (Daphnia magna), 24 hrs)

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.

CR301 Injection Foam, Part A

14 Transport Information

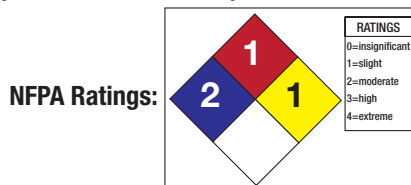
DOT (Domestic surface): Not regulated (Class 55).
IMO (Ocean): Not regulated.
ICAO (AIR): Not regulated.

15 Regulatory Information

OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communications Standard 29 CFR 1910.1200.
TSCA Status: On the TSCA inventory.
CERCLA Reportable Quantity: 4,4' Diphenylmethane Diisocyanate = 5,000 lbs.
SARA Title III
Section 302: Extremely Hazard Substances: None.
Section 311/312 Hazard Categories: Immediate Health Hazard, Delayed Health Hazard, Reactive Hazard.
Section 313 Toxic Chemicals: 4,4' Diphenylmethane Diisocyanate (MDI) (CAS # 101 68 8) ca 100%.
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 GHS Rev.03. Read SDS sheet before use.

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.



CR301 Injection Foam, Part B

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1 Identification

PRODUCT NAME: CR301 Injection Foam, Part B

SYNONYM: Aromatic Isocyanate

CHEMICAL FAMILY: Polyol Blend

MANUFACTURER / SUPPLIER: Concrete Sealers USA
P.O. Box 5464, De Pere, WI 54115
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

Signal Word: WARNING



Eye Contact: This blend will cause irritation on contact. Symptoms include watering or discomfort of the eyes with marked excess redness and swelling of the conjunctiva and chemical burns of the cornea. Tertiary amines can produce a blurring of vision against a general bluish haze and the appearance of halos around bright objects (referred to as “blue haze”). Tertiary amines can also cause severe conjunctivitis.

Ingestion: The tertiary amines, from this blend could cause severe irritation and possible chemical burns of the mouth, throat, esophagus and stomach with pain or discomfort in the mouth, throat, chest and abdomen. Symptoms include nausea, vomiting diarrhea, thirst, circulatory collapse and coma.

Inhalation: Heating, foaming or otherwise mechanically dispersing (drumming, venting or pumping) operations of this blend may generate more vapor or aerosol concentrations of its components. This blend contains tertiary amine amounts less than what is required to report as hazardous, however the tertiary amine component is severely irritating to the upper respiratory tract and mucous membranes of the nose and throat and can result in coughing, chest discomfort and headache.

Skin Contact: Prolonged contact may lead to burning associated with severe reddening, swelling and tissue destruction.

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.

Hazard Statements:

Causes skin and eye irritation.

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

Prolonged contact may cause an allergic skin reaction or burning associated with severe reddening, swelling and tissue destruction.

May cause respiratory irritation.

Carcinogenicity: NTP: Not listed as a carcinogen.

IARC: Not listed as a carcinogen.

OSHA: Not listed as a carcinogen.

CR301 Injection Foam, Part B

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3 Composition / Information on Ingredients

INGREDIENT	% BY WEIGHT	CAS #
2,2 -dimethyl-1-(methylethyl)-1,3-propanediyl bis(2-methylpropanoate)	20 - 40	6846-50-0

4 First-Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes. Materials containing MDI may react with the moisture of the eye forming a thick material that may be difficult to wash from the eyes. Seek medical attention.

Skin: Wash off in flowing water or shower. Remove and wash contaminated clothing and discard contaminated shoes. Seek medical attention if redness, itching or a burning sensation develops or persists after the area is washed.

Ingestion: If swallowed, rinse mouth with water. Give 1 or 2 glasses of water to drink. Do not induce vomiting. Seek immediate medical attention. 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.

NOTE TO PHYSICIAN:

Eyes: Strain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapors have produced reversible corneal epithelial edema impairing vision.

Skin: This material is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn.

This material is designed and intended to be pumped, not sprayed. MDI becomes more hazardous when atomized (sprayed). The following data is derived from tests performed when the material is sprayed and should be considered but may not apply to pumping operations as recommended by the manufacturer. Harmful if inhaled. Toxic fumes are released in fire situations. Dark brown liquid. Mild odor.

5 Fire-Fighting Measures

Fire Degradation Products: Toxic fumes are released in fire situations. Combustion may produce carbon dioxide, carbon monoxide and nitrogen oxides.

Extinguishing Media: Use dry chemical foam, carbon dioxide, halogenated agents or water. Use cold water spray to cool containers exposed to fire to minimize risk of rupture. A solid stream of water directed into the hot burning liquid could cause frothing. If possible, contain fire run-off water.

Protective equipment: Wear positive pressure self contained breathing apparatus with full face piece and full protective clothing.

6 Accidental Release Measures

Spill: Evacuate spill area. Remove all sources of flames, heating elements, gas engines, etc. Emergency cleanup personnel should wear chemical goggles, rubber or plastic gloves and clothing as required to protect against contact. If mist and or hot vapors are present, use air purifying respirator or self-contained breathing apparatus as required. The type of respirator selected should prevent exposure from traces of propylene oxide which may be present. Prevent spreading and contamination of surface waters and drinking supplies. Notify local health officials and other appropriate agencies if such a contamination should occur.

Clean up: With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to steel waste containers. The spill area should then be washed down with soap and water to dilute and remove traces of material. Ventilate area to remove the remaining vapors.

CR301 Injection Foam, Part B

6 Accidental Release Measures (Continued)

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: Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, or expose such containers to heat, flame, sparks, static electricity or other sources of ignition. All containers should be disposed in an environmentally safe manner and in accordance with government regulations.

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. Should freezing occur, the material must be thawed thoroughly and mixed until uniform. 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

Ventilation: General/local ventilation typically controls exposure levels very adequately. More aggressive engineering controls or personal protective equipment may be required in some applications such as heating. Monitoring is required to determine engineering controls.

Respiratory Protection: The specific respirator selected must be based on contamination levels of this blend found in the workplace and must not exceed the working limits of the respirator and be jointly approved by NIOSH/ MSHA. Air purifying respirators equipped with full faced organic vapor cartridges can be used only if isocyanate vapors are not present from the "A" component. In area of high concentrations, fresh air supplied respirators or self contained breathing apparatus should be used. A positive pressure self-contained breathing apparatus can be used in emergencies or other unusual situations.

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. Contact lenses should not be worn by persons who work with this product.

Protective Clothing: Wear clothing and gloves impervious to MDI under conditions of use. Materials may include butyl rubber, nitrile rubber, neoprene and Saranex coated Tyvek.

Other Protective Equipment: An eyewash station and safety shower or other drenching facilities are recommended in the work area.

CR301 Injection Foam, Part B

9 Physical and Chemical Properties

Flash Point: N/D	Autoignition Temperature: N/D
NFPA: Combustible Class III B	Flammable limits: (STP): N/D
Color: Brown	Boiling Point: N/D
Odor: Slightly Musty	Freezing Point: N/D
Viscosity: 30-40 Centipoise at 77°F (25°C)	

10 Stability and Reactivity

Stability: This is a stable material. Avoid high temperatures, sparks, flames and extended exposure over 110°F.

Hazardous Polymerization: Will not occur.

Reactivity: Incomplete with oxidizing materials, isocyanates and acids.

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide.

11 Toxicological Information

	ORAL	DERMAL	INHALATION
	LD ₅₀ (rat)	LD ₅₀ (rabbit)	LD ₅₀ (rat)
Polymeric Diphenylmethane Diisocyanate	> 5000 mg/kg	> 5000 mg/kg	490 mg/m ³ /4h
1,3-Dioxolan-2-one, 4-methyl-	> 5000 mg/kg	> 2000 mg/kg	Believed to be practically non-toxic

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 testing for this product as a whole.

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 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.

CR301 Injection Foam, Part B

14 Transport Information

DOT (Domestic surface): Not regulated.
ICAO (AIR): Air/Sea Export Not regulated.

15 Regulatory Information

SARA Title III

Section 311/312 Hazard Categories: Immediate.

Section 313 Reportable Ingredients: This product does not contain chemical components that are reportable under SARA 313.

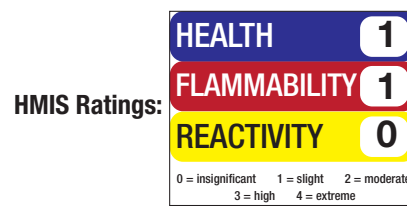
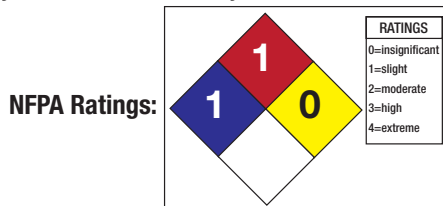
CERCLA: This product does not contain chemical components that are reportable under CERCLA.

TSCA: This product does not contain chemical components that are reportable under TSCA.

RCRA Status: Not a hazardous waste if discarded in its purchased form. 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

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.



CR303 Peel Off Surface Sealer, Part A

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1 Identification

PRODUCT NAME: CR303 Peel Off Surface Sealer, Part A

SYNONYM: N/A

CHEMICAL FAMILY: Urethane Prepolymers

MANUFACTURER / SUPPLIER: Concrete Sealers USA

P.O. Box 5464, De Pere, WI 54115

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.

Eye Contact: Following contact irritation will take place.

Ingestion: Probable oral toxicity, LD₅₀ (rat), >10g/kg. Irritation of the mouth, pharynx, esophagus and stomach can develop upon ingestion.

Inhalation: No known health information on inhalation of vapors. Vapors and aerosols probably affect respiratory tract. 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.

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.

CR303 Peel Off Surface Sealer, Part A

2 Hazard(s) Identification (Continued)

Carcinogenicity: In order to comply with California Proposition 65, we feel obligated to advise that some of our products may conceivably contain trace contaminants of some of the listed chemicals. While not necessarily added to our products as ingredients, some listed chemicals may be present in the raw materials from suppliers and over which we have no control. Therefore, even though some of the listed substances may not be present, a significant risk as defined by the regulations in order to comply with California law, we feel obligated to make the following statement:

Warning: Our products may contain trace amounts of some chemicals considered by the State of California to be carcinogens or reproductive toxicants.

3 Composition / Information on Ingredients

INGREDIENT	% BY WEIGHT	TLV	PEL	CAS #
Diphenylmethane 4,4' Diisocyanate, MDI	25-30	.005 ppm	.02 ppm	101-68-8
Other ingredients not precisely identified are proprietary or non hazardous as defined in 29 CFR 1910.1200.				

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: Drink no more than 2 glasses of water and induce vomiting by administering 2 tablespoons of ipecac syrup or by touching finger to back of victim's throat. Keep victim's head below hips while vomiting. Consult physician.

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.

5 Fire-Fighting Measures

Flash Point: > 230 °F (SETAFLASH CC).

Auto Ignition Temperature: N/D

Limits of Flammability: LEL – N/D UEL – N/D

Fire Degradation Products: Toxic fumes are released in fire situations. Acrid smoke/fumes.

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

Special Fire & Unusual Hazards: Self-contained respirator equipment 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: Do not reseal contaminated containers as pressure buildup may rupture them.

CR303 Peel Off Surface Sealer, 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% ammonium hydroxide or 7% 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.

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: 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 mechanical ventilation and local exhaust.

Protective Gloves: Rubber or polyethylene.

Eye Protection: Chemical splash goggles or safety glasses.

Protective Clothing: Wear impervious clothing and gloves. Materials may include butyl rubber or neoprene rubber. 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

VP: N/D @ 20C

% Volatile: Negligible

Color: White Paste

Evaporation Rate: <1 (butyl acetate = 1)

VD: N/D

Boiling Point: > 400 °F

Odor: Mild

SP GR: 1.32 (water = 1)

Flash Point: > 230 °F (SETAFLASH CC)

Solubility: Minimal

Explosive Limits: LEL – N/D UEL – N/D

CR303 Peel Off Surface Sealer, Part A

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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 acids, strong bases. Amines, mercaptans, polyols, water and metal compounds may initiate possible hazardous reactions.

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

Hazardous Polymerization: May occur if product is not handled per instruction.

11 Toxicological Information

Toxicological Data: Diphenylmethane 4,4' Diisocyanate, MDI.

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

Primary Routes of Entry: Skin contact.

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

Exposure: MDI contains reactive isocyanate groups. Use with adequate ventilation to keep airborne isocyanate level below TLV or 0.005 ppm TWA (ACGIH) and PEL 0.02 ppm ceiling (OSHA). These control limits do not apply to previously sensitized individuals or to individuals with existing respiratory disease, such as bronchitis, emphysema or asthma. Respiratory protection may be needed where material is heated, sprayed or used in confined space, or if TLV is exceeded. Never try to detect MDI vapor by odor. Persons with known respiratory or allergic problems must not be exposed to this product. **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.

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 on this product as a whole.

13 Disposal Considerations

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. 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.

CR303 Peel Off Surface Sealer, Part A

14 Transport Information

DOT (Domestic surface): Shipping name: Diphenylmethane 4,4' Diisocyanate Mixture. Not regulated (Class 55).
IMO (Ocean): Not restricted. **RQ (Reportable quantity)** = 7000 lbs.
ICAO (AIR): Not restricted.

15 Regulatory Information

OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communications Standard 29 CFR 1910.1200.
TSCA Status: All ingredients are on the TSCA inventory.
CERCLA Reportable Quantity: 4,4' Diphenylmethane Diisocyanate = RQ of 5,000 lbs - RQ for spill is 7000 lbs. - Any spill or release above the RQ must be reported to the National Response Center (800-424-8802).
SARA Title III
Section 311/312 Hazard Categories: Acute, Chronic Sensitizing substance.
Section 313 Toxic Chemicals: Diisocyanate Compounds.
RCRA Status: MDI is not a hazardous waste. 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: Avoid breathing vapors, use with good ventilation. Wash hands thoroughly with soap and water after every use. 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



CR303 Peel Off Surface Sealer, Part B

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1 Identification

PRODUCT NAME: CR303 Peel Off Surface Sealer, Part B

SYNONYM: N/A

CHEMICAL FAMILY: Amine Blend

MANUFACTURER / SUPPLIER: Concrete Sealers USA
P.O. Box 5464, De Pere, WI 54115
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

Signal Word: WARNING



Inhalation: Due to low vapor pressure of this product, fumes will be minimal below 90°F. At higher temperatures, fumes will be irritating.

Skin Contact: Exposure may cause moderate irritation.

Eye Contact: Can cause severe burns, irritation, redness, tearing or blurred vision.

Ingestion: Slightly toxic. CAS 5285-60-9 Oral LD(50): (rat) 1.4 g/kg.

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: DANGER



Hazard Statements:

Overexposure may cause burns to skin and eyes.

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

May cause an allergic skin reaction.

Acute: Prolonged or repeated exposure may cause severe burns to skin. Can cause skin allergic reaction. Draize skin score from 24 hr contact, 2.8.

Chronic: Unknown.

CR303 Peel Off Surface Sealer, Part B

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2 Hazard(s) Identification (Continued)

Carcinogenicity: In order to comply with California Proposition 65, we feel obligated to advise that some of our products may conceivably contain trace contaminants of some of the listed chemicals. While not necessarily added to our products as ingredients, some listed chemicals may be present in the raw materials from suppliers and over which we have no control. Therefore, even though some of the listed substances may not be present, a significant risk as defined by the regulations in order to comply with California law, we feel obligated to make the following statement:

Warning: Our products may contain trace amounts of some chemicals considered by the State of California to be carcinogens or reproductive toxicants.

3 Composition / Information on Ingredients

INGREDIENT	% BY WEIGHT	TLV	STEL	PEL	CAS #
N,N-Dialkyldiphenyl methane	30 - 35	N/E	N/E	N/E	5285-60-9
Glyceryl-polyoxypropylenetriamine	< 5	N/E	N/E	N/E	6485-22-28
Other ingredients are non-hazardous as defined in 29 CFR 1910.1200.				(N/E = Not Established)	

4 First-Aid Measures

Eyes: Open lids wide and flush with water and/or 1% boric acid for at least 30 minutes. Seek immediate medical attention.

Skin: Apply generous amounts of waterless hand cleaner to affected area. Rub briskly and remove with paper towel or rag. Repeat process. Then wash skin with mild soap and rinse with water for at least 15 minutes. Wash contaminated clothing and destroy leather goods. Seek medical attention if irritation persists.

Ingestion: Do Not Induce vomiting. Get immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquids into lungs. Do not give anything by mouth to an unconscious person.

Inhalation: Remove the patient from the contaminated area to fresh air. Administer oxygen or artificial respiration as needed. Seek immediate medical attention.

5 Fire-Fighting Measures

Flash Point: > 200 °F (PMCC).

Flammable Limits: Unknown.

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

Unusual Fire and Unusual Hazards: Self-contained respirator equipment and full protective clothing are required when smoke and fumes are generated. Fire may produce irritating and poisonous fumes such as carbon monoxide and nitrous oxides. Electrical grounding is not recommended.

CR303 Peel Off Surface Sealer, Part B

6 Accidental Release Measures

Spill or Leaks: Absorb with dry chemical absorbent, earth, sand or any other inert material. Wear proper personal protective equipment. Place in a chemical waste container for proper disposal. Flush contaminated areas with water and diluted acetic acid.

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.

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 to freeze.

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: Avoid breathing vapors. Use adequate ventilation. Wear respirator protection wherever airborne concentrations exceed TLV ceilings or TWA. Confined rooms are areas where concern for TLV's is especially important. Regulation CFR 29 1910.134 for recommended respiratory protection.

Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in the work area to avoid build up of heavy vapors.

Protective Gloves: Rubber or impervious gloves recommended.

Eye Protection: Safety glasses or chemical splash goggles if splashing is anticipated.

Protective Clothing: Wear impervious clothing and gloves. Materials may include butyl rubber, nitrile rubber, neoprene and Saranex coated Tyvek.

9 Physical and Chemical Properties

VP @ 20C: < .1 mm Hg

VD: N/ D (air = 1)

Color: Black

Odor: Ammoniacal

Solubility In Water: Negligible

Evaporation Rate: N/D

SP GR: 1.0

% Volatile: Negligible

Boiling Point: >300 °F

Appearance: Paste

Flash Point: > 200 °F (PMCC)

N/D = Not Determined

CR303 Peel Off Surface Sealer, Part B

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10 Stability and Reactivity

Stability: Stable. This product must be mixed with another component to react. Not sensitive to mechanical impact.

Reactivity: Incompatibility Materials to Avoid: Strong oxidizing agents, acids, epoxy resins, isocyanates, and organic peroxides may result in violent reaction.

Hazardous Decomposition Products: Carbon monoxide and dioxide, nitrogen oxides, aldehydes and various hydrocarbons from incomplete combustion.

Hazardous Polymerization: Will not occur unless product is mixed with epoxy resins, isocyanates or urethane prepolymers.

11 Toxicological Information

Toxicological Data: N,N-Dialkyldiphenyl methane - Glyceryl-polyoxypropylenetriamine.

Ingestion: Slightly toxic by ingestion. CAS 5285-60-9 ORAL LD (50), 1.4 g/kg (rat).

Routes of Entry: Dermal, inhalation.

Skin: Prolonged or repeated exposure to skin may cause a severe burn. May result in an allergic reaction. Skin sensitizer. Draize skin score for 24 hour contact, 2.8.

Eyes: Contact can cause severe burns, or blurred vision.

Chronic: None known.

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 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: Compound resin. Not regulated (Class 55).

IMO (Ocean): Not restricted.

ICAO (AIR): Not restricted.

CR303 Peel Off Surface Sealer, Part B

15 Regulatory Information

TSCA Status: Included on inventory. All ingredients are in compliance.

SARA Title III (40 CFR 370)

Section 311/312 Hazard Categories: Acute

Section 313 Toxic Chemicals: NA

WHMIS: Toxic material, corrosive material.

Carcinogenic Categories:

NTP: Not classified as a carcinogen.

IARC: Not classified as a carcinogen.

OSHA: Not classified as a carcinogen.

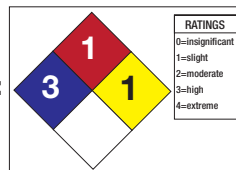
RCRA Status: Under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).

16 Other Information

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:

