CFS-CTR SERIES
Polyurea Coating
Safety Data Sheet

SDS Revision Date: 1/16/2025

1. Product and Company Identification

Product Name	Polyurea Coating
Product Codes	Polyurea Coating
Manufacturer	Concrete Floor Solutions, Inc.
Street Address	6801 Tilghman Street #113
City, State, Zip	Allentown, PA 18106
Information Phone	610-366-0208
Emergency Phone	610-366-0208
Prepared By	Jason Kehnel
Date Revised	1/16/2025

2. Hazards Identification

Appearance: Yellow liquid
Physical State: Liquid

Classification: This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200.) However, this safety data sheet contains valuable information critical to the safe handling and proper use of this product. This safety data sheet should be retained and available for employees and other users of this product.

3. Composition/Information on Ingredients

Ingredient	CAS NO.	Weight %
Castor Oil	8001-79-4	80-100

SECTION 3 NOTES: If chemical name/CAS No is "proprietary" and/or weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First Aid Measures

Eyes: Rinse thoroughly with water for at least 15 minutes lifting lower and upper eyelids. Consult a physician.
Skin: Wash off immediately with plenty of water for at least 15 minutes.
Ingestion: Clean mouth with water and drink plenty of water afterwards.
Inhalation: Remove to fresh air.

Most important symptoms and effects, both acute and delayed: None known

5. Fire Fighting Measures

Extinguishing media	water fog, foam, dry chemical powder, CO2
Unsuitable extinguishing media	do not use water jet as it might spread flame

Specific hazards arising from the chemical: during fire, nitrous gases, fumes/smoke, isocyanates, and vapor may be formed.
Products may include acidic hydrogen chloride and hydrogen fluoride, carbon oxide, hydrocarbons, nitrogen oxides, and smoke.

Protective equipment and precautions for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent, and full protective gear.

6. Release Measures

Personal precautions: As a general precaution, take personal precaution not to breathe gas, vapors, or dusts. Do not get in eyes, on skin or clothing. Use appropriate personal protection equipment. In the event of an emergency, evacuate any unnecessary personnel.

Environmental practices: See section 12 for additional ecological information.

Methods for containment: Prevent further leakage or spillage if safe to do so.
Methods for clean up: For containment, ensure adequate ventilation and absorb any spill or inert liquid binding material to dispose of waste safely.

7. Handling and Storage

Precautions to be taken in handling and storage - Handle in accordance with good industrial hygiene and safety practices.

Other precautions - Store in a cool, dry, and well ventilated place. Keep stores in accordance with local, regional, national, and international regulations. Store away from incompatible materials.

Incompatible materials: Water, amines, substances that react to polyureas.

8. Exposure Controls/Personal Protection

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Engineering Controls: Apply technical measures to comply with the occupational exposure limits.

Eye/Face Protection: Use tightly sealed goggles or safety glasses with side shields which are resistant to Chemicals. Refer to 29 CFR 1910.133 for eye and face protection regulations.
Skin/Body Protection: Wear chemical resistant protection gloves. Wear impervious clothing as necessary to protect against coming in contact with the product. Refer to 29 CFR 1910.138 for appropriate skin and body protection.
Respiratory Protection: Refer to 29 CFR 1910.134 for respiratory protection requirements.
General Hygiene Considerations: Do not eat, drink or smoke during work. Avoid all contact with skin or eye. If clothing comes into contact with material, do not leave the workplace. Clean hands and any exposed skin thoroughly after work and before breaks.

9. Physical and Chemical Properties

Appearance and Odor - Light, yellow liquid, odor not determined
Color - Light yellow
pH - N/A
Melting point/freezing point - -10C/ 14F
Initial boiling point and boiling range - 229C/ 444.2F
Flash point - N/A
Evaporation rate - not determined
Flammability (solid,gas) - N/A
Upper flammability or explosive limits - N/A
Lower flammability or explosive limits - N/A
Vapor pressure - not determined
Vapor density - N/A
Relative density - 0.95
Water solubility - insoluble in water
Solubility in other solvents - not determined
Partition coefficient - not determined

Autoignition temperature - 448C/ 838.4F
Decomposition temperature - not determined
Kinematic viscosity - not determined
Dynamic viscosity - not determined
Explosive properties - not determined
Oxidizing properties - not determined

10. Stability and Reactivity

Reactivity - not reactive under normal conditions
Chemical stability - stable under recommended storage conditions
Possibility of hazardous reactions - risk of bursting. Reacts with alcohol. acids, alkalis, amines. Risk of exothermic reaction.
Conditions to avoid - keep away from heat, sparks, and open flame. Avoid high temperatures and contact with incompatible materials.
Incompatible materials - water, amines, substances that react to polyureas
Hazardous decomposition products - none known based on information supplied

11. Toxicological Information

Information on likely routes of exposure
Eye contact - avoid contact with eyes
Skin contact - avoid contact with skin
Inhalation - do not inhale
Ingestion - do not ingest

Symptoms related to physical, chemical, and toxicological characteristics
Symptoms - Please see section 4 of this SDS for symptoms.
Delayed and immediate effects as well as chronic effects from short and long term exposure
Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC, or NTP.

Numerical Measures of Toxicity: Not determined

12. Ecological Information

Ecotoxicity - this product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence/degradability - not determined
Bioaccumulation - there is no data for this product
Mobility - not determined
Other adverse effects - not determined

13. Waste Disposal

Waste Disposal Method: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14. Transport Information

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT: Not regulated

IATA: Not regulated

IMDG: Not regulated

15. Regulatory Information

Chemical name	TSCA	TSCA Inventory Status	DSL/N DSL	EINECS/ ELINCS	ENCS	IECSC	KECL	PICCS	AIIC
Castor Oil	X	Active	X	X		X	X	X	X

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations This product does not contain any substances regulated under applicable state right-to-know regulations.

16. Other Information

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.
N/A = Not Available
See Section 1 for date of preparation

1.Product and Company Identification

Product Name	Polyurea Coating
Product Codes	Polyurea Coating
Manufacturer	Concrete Floor Solutions, Inc.
Street Address	6801 Tilghman Street #113
City, State, Zip	Allentown, PA 18106
Information Phone	610-366-0208
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Prepared By	Jason Kehnel
Date Revised	1/16/2025

2.Hazards Identification

Appearance: Liquid
Physical State: Liquid
Odor faintly aromatic

GHS Classification: Acute toxicity - inhalation (dusts/mists) category 4, serious corrosion/irritation category 2, serious eye damage/eye irritation category 2, respiratory sensitization category 1, skin sensitization category 1, carcinogenicity category 2, specific target organ toxicity single exposure category 3, specific target organ toxicity repeated exposure category 2.

Signal Word: Danger
Hazard Statements:
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
Obtain special instructions before use.
Do not handle it until all safety precautions have been read and understood.
Use personal protective equipment as required.
Wash face, hands and any exposed skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Do not breathe dust/fume/gas/mist/vapors/spray.
Contaminated work clothing must not be allowed out of the workplace.
In case of inadequate ventilation wear respiratory protection.

Response
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists, get medical advice/attention.
If on skin: Wash with plenty of water and soap. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs, get medical advice/attention.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms, call a poison center or a doctor/physician.
If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting.
Storage: Store locked up in a well ventilated place. Keep container tightly closed.
Disposal:
Dispose of contents/container in an approved waste disposal plant.

3.Composition/Information on Ingredients

Ingredient	CAS NO.	Weight %
4,4-methylenediphenyl diisocyanate (MDI)	101-68-8	30-40
Methylenediphenyl diisocyanate	26447-40-5	3-7

SECTION 3 NOTES: If chemical name/CAS No is “proprietary” and/or weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4.First Aid Measures

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists, get medical advice/attention.
Skin: Wash with plenty of water and soap. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs, get medical advice/attention.

Ingestion: Call a poison center or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting.
Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms, call a poison center or a doctor/physician.

Most important symptoms and effects, both acute and delayed:
Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing cancer. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

5.Fire Fighting Measures

Extinguishing media	water fog, foam, dry chemical powder, CO2
Unsuitable extinguishing media	not determined

Specific hazards arising from the chemical: during fire, nitrous gases, fumes/smoke, isocyanates, and vapor may be formed.

Protective equipment and precautions for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent, and full protective gear.

6.Release Measures

Personal precautions: Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental practices: See section 12 for additional ecological information.

Methods for containment: Prevent further leakage or spillage if safe to do so.
Methods for clean up: For small amounts: Absorb isocyanates with suitable absorbent material. Shovel into an open container. Do not make container pressure tight. Move the container to a well-ventilated area (outside). The spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90% water. 8% concentrated ammonia, 2% detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide. For large amounts: If temporary control of isocyanates vapor is required, a blanket of protein foam or other suitable foam may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal. For residues: The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow the solution to stand for at least 10 minutes. Dike spillage.

7.Handling and Storage

Precautions to be taken in handling and storage - Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray.

Other precautions - Keep away from water. Segregate from foods and animal feeds. Segregate from foods and animal feeds. Segregate from acids and bases. Segregate from bases. Formation of CO2 and build-up of pressure possible. Keep the container tightly closed and in a well-ventilated place. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

Incompatible materials: Acids, amines, alcohols, water, alkalines, strong bases, substances/products that react with isocyanates.

8.Exposure Controls/Personal Protection

Exposure Guidelines:

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
4,4- methylenediphenyl diisocyanate (MDI) 101-68-8	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m^3	IDLH: 75 mg/m^3 Ceiling: 0.020 ppm 10 min Ceiling: 0.2 mg/m^3 10 min TWA: 0.005 ppm TWA: 0.05 mg/m^3
Methylenediphenyl diisocyanate 26447-40-5	-	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m^3	-

Engineering Controls: Local exhaust ventilation required. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Provide sufficient ventilation to keep vapors below permissible exposure limit. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Eye/Face Protection: Use tightly sealed goggles or safety glasses with side shields which are resistant to Chemicals. Refer to 29 CFR 1910.133 for eye and face protection regulations.
Skin/Body Protection: Wear chemical resistant protection gloves. Wear impervious clothing as necessary to protect against coming in contact with the product. Refer to 29 CFR 1910.138 for appropriate skin and body protection.
Respiratory Protection: If insufficient ventilation, wear respiratory protection. Refer to 29 CFR 1910.134 for respiratory protection requirements.
General Hygiene Considerations: Do not eat, drink or smoke during work. Avoid all contact with skin or eye. If clothing comes into contact with material, do not leave the workplace. Clean hands and any exposed skin thoroughly after work and before breaks.

9.Physical and Chemical Properties

Appearance and Odor - Dark liquid, odor faintly aromatic
Color - Dark
pH - N/A
Melting point/freezing point - 3C/ 37.4F
Initial boiling point and boiling range - 200C/ 392F
Flash point - 220C/ 428F
Evaporation rate - not determined
Flammability (solid,gas) - not determined
Upper flammability or explosive limits - N/A
Lower flammability or explosive limits - N/A
Vapor pressure - 0.00016 mmHg
Vapor density - N/A
Relative density - 1.25
Water solubility - reacts with water
Solubility in other solvents - not determined
Partition coefficient - not determined
Autoignition temperature - >250C/ >482F
Decomposition temperature - not determined
Kinematic viscosity - not determined
Dynamic viscosity - not determined
Explosive properties - not determined
Oxidizing properties - not determined

10.Stability and Reactivity

Reactivity - not reactive under normal conditions
Chemical stability - stable under recommended storage conditions
Possibility of hazardous reactions - Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohol. Reacts with acids. Reacts with alkalies. Reacts with amines. Risk of exothermic reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of substance/product with subsequent loss in strength.
Conditions to avoid - avoid moisture.
Incompatible materials - acids, amines, alcohol, water, alkalines, strong bases, substances/products that react with isocyanates.
Hazardous decomposition products - carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide, aromatic isocyanates, gases/vapors.

11.Toxicological Information

Information on likely routes of exposure
Eye contact - avoid contact with eyes

Skin contact - avoid contact with skin
Inhalation - harmful if inhaled
Ingestion - do not ingest

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methylenediphenyl diisocyanate isomers (polymeric MDI) 9016-87-9	49 g/kg (rat)	>9.4 g/kg (rabbit)	490 mg/m3 (rat) 4h
4,4-methylenediphenyl diisocyanate (MDI) 101-68-8	31600 mg/kg (rat)		369 mg/m3 (rat) 4h
Methylenediphenyl diisocyanate 26447-40-5	10000 mg/kg (rat)	>10000 mg/kg (rabbit)	490 mg/m3 (rat) 4h

Symptoms related to physical, chemical, and toxicological characteristics

Symptoms - Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long term exposure

Skin corrosion/irritation - Causes skin irritation.

Serious eye damage/irritation - Causes serious eye irritation.

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

May cause an allergic skin reaction.

Carcinogenicity - Suspected of causing cancer.

Methylenediphenyl diisocyanate isomers (polymeric MDI) 9016-87-9: IARC Group 3
4,4-methylenediphenyl diisocyanate (MDI) 101-68-8: IARC Group 3
Methylenediphenyl diisocyanate 26447-40-5: IARC Group 3

STOT - single exposure may cause respiratory irritation.
STOT - repeated exposure may cause damage to organs through prolonged or repeated exposure.
Numerical Measures of Toxicity
The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50 - 34671.8 mg/kg

Dermal LD50 - 9841 mg/kg

Gas - >2500 ppm

ATEmix (inhalation dust/mist) - >1 mg/l

12.Ecological Information

Ecotoxicity - this product is classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence/degradability - not determined
Bioaccumulation - there is no data for this product

Mobility

4,4-methylenediphenyl diisocyanate (MDI) 101-68-8: 4.51

Methylenediphenyl diisocyanate 26447-40-5: 4.5

Other adverse effects - not determined

13.Waste Disposal

Waste Disposal Method: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14.Transport Information

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT: Not regulated

IATA: Not regulated

IMDG: Not regulated

15.Regulatory Information

Chemical name	TSCA	TSCA Inventory Status	DSL/N DSL	EINECS/ ELINCS	ENCS	IECSC	KECL	PICCS	AIIC
Methylenediphenyl diisocyanate isomers (Polymeric MDI)	X	Active	X		X	X	X	X	X
4,4- methylenediphenyl diisocyanate (MDI)	X	Active	X	X	X	X	X	X	X
Methylenediphenyl diisocyanate	X	Active	X	X	X	X	X	X	X
Isocyanic acid, polymethylenepolyphenylene ester, polymer with alpha-hydro-omega-hydroxypoly (oxy-1,2-ethanediyl)	X	Active	X			X			X
1,3-diazetidine-2,4-dione, 1,3-bis [4-[(4-isocyanatophenyl)methyl]phenyl]-	X	Active	X	X		X		X	X

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
4,4-methylenediphenyl diisocyanate (MDI) 101-68-8	5000 lbs		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Chemical Name	CAS No	Weight %	SARA 313 Threshold Values %
Methylenediphenyl diisocyanate isomers (polymeric MDI) 9016-87-9	9016-87-9	30-45	1
4,4-methylenediphenyl diisocyanate (MDI) 101-68-8	101-68-8	30-40	1
Methylenediphenyl diisocyanate 26447-40-5	26447-40-5	3-7	1

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Methylenediphenyl diisocyanate isomers (polymeric MDI) 9016-87-9	X		
4,4-methylenediphenyl diisocyanate (MDI) 101-68-8	X	X	X
Methylenediphenyl diisocyanate 26447-40-5	X		

16.Other Information

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.
N/A = Not Available
See Section 1 for date of preparation

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