



2C Polyaspartic Safety Data Sheet

SDS Revision Date: 10/17/2024

1. Product and Company Identification

Product Name	2C Polyaspartic
Product Codes	2C Polyaspartic
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	10/17/2024

2. Hazards Identification

Appearance: Clear liquid
Physical State: Liquid

GHS Classification: Serious eye damage/eye irritation category 2, skin sensitization category 1.



Signal Word: Warning

Hazard Statements:

Causes serious eye irritation.

May cause an allergic skin reaction.

Precautionary statements:

Wash face, hands, and any exposed skin thoroughly after handling.

Avoid breathing dust, fumes, gas, mist, vapors, spray.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves, eye protection, face protection.

Unsuitable extinguishing media do not use water jet as it may spread flame

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

Hazardous combustion products: combustion 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 to not breath gas, vapors, or dusts. Do not get product in eyes, on skin or clothing. Use appropriate personal protection equipment. In the event of an emergency, evacuate any unnecessary personnel.

Environmental practices: As an environmental precaution, prevent spillage to sewers, public waters, and do not penetrate ground/soil. 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 - Wash face, hands, and any exposed skin thoroughly after handling. Avoid breathing dust, fumes, gas, mist, vapors, spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves, clothing, and eye/face protection.

Other precautions - Keep containers tightly closed in a cool, dry, well-ventilated place.

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: 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 - Clear liquid, odor not determined

Color - Colorless

pH - N/A

Melting point/freezing point - N/A

Initial boiling point and boiling range - 140 C/284 F

Flash point - 106 C/222.8 F

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 - not determined

Vapor density - N/A

Relative density - 1.12-1.13

Water solubility - insoluble in water

Solubility in other solvents - not determined

Partition coefficient - not determined

Autoignition temperature - N/A

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 alcohols, acids, alkalis, amines, risk of exothermic reaction

Conditions to avoid - keep away from heat, sparks, and open flames, avoid high temperatures, avoid 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 - may be harmful in contact with skin

Inhalation - do not inhale

Ingestion - do not ingest

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Propylene carbonate 108-32-7	29000 mg/kg (rat)	> 3000 mg/kg (rabbit)	N/A

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

Serious eye damage/irritation - Causes serious eye irritation

Sensitization - May cause an allergic skin reaction

Carcinogenicity - 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

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50 - 29000 mg/kg

Dermal LD50 - 3000 mg/kg

12. Ecological Information

Ecotoxicity - harmful to aquatic life with long lasting effects.

Chemical Name	Algae/Aquatic Plants	Fish	Crustacea
Propylene carbonate 108-32-7	EC50: >500 mg/L (72h, desmodesmus subspicatus)	LC50: >1000 mg/L (96h. Cyprinus carpio)	EC50: >500 mg/L (48h, daphnia magna)

Persistence/degradability - not determined

Bioaccumulation - there is no data for this product

Mobility

Propylene Carbonate 108-32-7: 0.48

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
1,1'-Methylenebis[(3-methylcyclohexyl-4)-2-amino-butanedioic acid], tetraethyl ester	X	ACTIVE	X	X		X			X
Tetraethyl N,N'-(methylenecyclohexane-4,1-diyl)bis-dl-aspartate; (Aspartic Acid Ester)	X	ACTIVE	X	X		X			X
Propylene carbonate	X	ACTIVE	X	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	2C Polyaspartic
Product Codes	2C Polyaspartic
Manufacturer	Concrete Floor Solutions, Inc.
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City, State, Zip	Allentown, PA 18106
Information Phone	610-366-0208
Emergency Phone	610-366-0208
Prepared By	Jason Kehnel
Date Revised	10/17/2024

2. Hazards Identification

Appearance: Clear liquid

Physical State: Liquid

GHS Classification: Respiratory sensitization category 1, skin sensitization category 1



Signal Word: Danger

Hazard Statements:

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

May cause an allergic skin reaction.

Precautionary statements:

Avoid breathing dust, fumes, gas, mist, vapors, spray.

In case of inadequate ventilation wear respiratory protection.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves, clothing, eye and face protection.

Response

If on skin: wash with plenty of soap and water. Wash contaminated clothing before reuse.

If skin irritation or rash occurs: get medical attention/advice.

If inhaled: if breathing is difficult, remove the victim to fresh air and keep at rest in a position comfortable for breathing.

If experiencing respiratory symptoms: call a poison control center or doctor/physician.

Disposal:

Dispose of contents/container in an approved waste disposal plant.

3.Composition/Information on Ingredients

Ingredient	CAS NO.	Weight %
Hexamethylene diisocyanate	822-06-0	0.1-0.15

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 plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs, get medical attention/advice.

Ingestion: Clean mouth with water and drink plenty of water afterwards.

Inhalation: If breathing is difficult, remove the victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms, call a poison control center or doctor/physician.

Most important symptoms and effects, both acute and delayed:

May be harmful in contact with skin. May be harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

5.Fire Fighting Measures

Extinguishing media carbon dioxide, foam, water spray, dry chemical powder

Unsuitable extinguishing media not determined

Specific hazards arising from the chemical: Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen is to be expected. Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gasses. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

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 to not breath gas, vapors, or dusts. Do not get product in eyes, on skin or clothing. Use appropriate personal protection equipment. In the event of an emergency, evacuate any unnecessary personnel.

Environmental practices: As an environmental precaution, prevent spillage to sewers, public waters, and do not penetrate ground/soil. 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 - Avoid breathing dust, fumes, gas, mist, vapors, spray. In case of insufficient ventilation, wear suitable respiratory equipment. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves, clothing, and eye and face protection.

Other precautions - Keep containers tightly closed in a cool, dry, well-ventilated place.

Incompatible materials: Water, amines, strong acids and bases, alcohols, copper alloys

8. Exposure Controls/Personal Protection

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hexamethylene diisocyanate 822-06-0	TWA: 0.005 ppm	N/A	0.02 ppm 10 min 0.14 mg/m ³ 10 min TWA: 0.005 ppm TWA: 0.035 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 - Clear liquid, odor not determined

Color - Colorless

pH - N/A

Melting point/freezing point - N/A

Initial boiling point and boiling range - 140 C/219.2 F

Flash point - 194 C/381.2 F

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 - not determined

Vapor density - N/A

Relative density - 1.13-1.14

Water solubility - insoluble in water, reacts slowly with water to liberate CO₂ gas

Solubility in other solvents - not determined

Partition coefficient - not determined

Autoignition temperature - N/A

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 - in presence of moisture and when in contact with other materials that react with isocyanates or temperatures above 177 C may cause polymerization.

Avoid heat, sparks, and flame.

Conditions to avoid - direct sunlight, extremely high or low temperatures

Incompatible materials - water, amines, strong acids and bases, alcohols, copper alloys

Hazardous decomposition products - nitrogen oxides, carbon oxides

11.Toxicological Information

Information on likely routes of exposure

Eye contact - avoid contact with eyes

Skin contact - may be harmful in contact with skin

Inhalation - may be harmful if inhaled

Ingestion - do not ingest

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hexamethylene diisocyanate, oligomers 28182-81-2	N/A	> 200 mg/kg (rat)	18500 mg/m3 (rat) 1h
Hexamethylene diisocyanate 822-06-0	738 mg/kg (rat)	> 7000 mg/kg (rat_	0.06 mg/L (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

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

May cause an allergic skin reaction.

Carcinogenicity - 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

The following values are calculated based on chapter 3.1 of the GHS document

Dermal LD50 - 2500 mg/kg

Gas - 13334.67 ppm

ATEmix (inhalation-dust/mist) - 5.683 mg/l

12.Ecological Information

Ecotoxicity - The 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.

Chemical Name	Algae/Aquatic Plants	Fish	Crustacea
Hexamethylene diisocyanate 822-06-0	N/A	LC50: =26.1 mg/L (96h, brachydanio rerio)	N/A

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	AIC
Hexamethylene diisocyanate, oligomers	X	active	X	X	X	X	X	X	X
Hexamethylene diisocyanate	X	active	X	X	X	X	X	X	X

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hexamethylene diisocyanate 822-06-0	100 lb	N/A	RQ 100 lb final RQ RQ 45.4 kg final RQ

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hexamethylene diisocyanate 822-06-0	X	X	

16. Other Information

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N/A = Not Available

See Section 1 for date of preparation

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