Delcrete/Delpatch
DSB 1494 A

SAFETY DATA SHEET

REV 03/20

Section 1. Identification

GHS Product Identifier	:	Delcrete/Delpatch DSB 1494 A
CAS No.	:	Proprietary
Chemical Family	:	Isocyanate-terminated Prepolymer.
Product Use	:	For industrial or professional use only. This material is used for the production of cast polyurethane in the road construction industry and should not be used for spray systems.
Supplier	:	The D.S. Brown Company 300 East Cherry Street North Baltimore, Ohio 45872 419-257-3561
In Case of Emergency	:	Chemtrec 1-800-424-9300 International 01-703-741-5500

YouTube Video - Delcrete Elastomeric Concrete

*DSB Installation Sheet Delcrete-m (5.6 CF)**

*DSB Installation Sheet Delcrete with DelAgg Elastomeric Concrete System**

*DSB Installation Sheet Delcrete with Sand / Fiberglass Aggregate System**

YouTube Video - Delpatch

DSB Installation Sheet Delpatch Elastomeric Concrete

*Delcrete is available in various unit sizes that require different mixing ratios. Please refer to your actual Delcrete packaging to confirm which of these Delcrete installation instructions are applicable to your product.

Section 2. Hazards Identification

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS Classification in Accordance with 29CFR 1910 (OSHA HCS) :
Health, Respiratory sensitization, 1
Health, Acute toxicity, 2 Inhalation
Health, Skin sensitization, 1
Health, Skin corrosion/irritation, 2
Health, Carcinogenicity, 2
Health, Serious Eye Damage/Eye Irritation, 2 A
Environmental, Hazards to the aquatic environment - Acute, 3

GHS Label Elements, Including Precautionary Statements

GHS Signal Word : **DANGER.**

GHS Hazard Pictograms :

Section 2. Hazards Identification *cont'd.*

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE *cont'd.*

GHS Label Elements, Including Precautionary Statements

GHS Hazard Statements :

H334 May cause allergy or asthma symptoms of breathing difficulties if inhaled.
H330 Fatal if inhaled.
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H351 Suspected of causing cancer.
H319 Causes serious eye irritation.
H402 Harmful to aquatic life.

GHS Precautionary Statements :

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe vapors.
P264 Wash hand thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection.
P285 In case of inadequate ventilation wear respiratory protection.
P302+352 **If on skin:** Wash with plenty of soap and water.
P304+341 **If inhaled:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 **If in eyes:** Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+313 **If exposed or concerned:** Get medical advice/attention.
P333 **If skin irritation or a rash occurs:** Get medical advice/attention.
P337 **If eye irritation persists:** Get medical advice/attention.
P342 **If experiencing respiratory symptoms:** Call a poison center or doctor.
P362 Take off contaminated clothing and wash before reuse.
P363 Wash contaminated clothing before reuse.
P403+233 Store in a well ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/state regulations.

Section 3. Composition/Information on Ingredients

Chemical Name	Common Name and Synonyms	CAS No.	%
Toluene diisocyanate (mixed isomers)		26471-62-5	16-18
Trade Secret		*****	82-84

Section 4. First Aid Measures

Inhalation : Move to an area free from the risk of further exposure. If not breathing, or breathing is difficult, obtain medical attention.

Skin Contact : Flush skin with plenty of water for at least 5 minutes while removing contaminated clothing and shoes. Wash thoroughly with soap and water. Get medical attention if irritation or rash develops on affected area. Wash clothing before reuse.

Eye Contact : Rinse with water immediately for 15 minutes. Seek medical attention.

Ingestion : Rinse mouth and then drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Most Important Symptoms/ Effects

Acute : Breathing difficulties, and lachrymation.

Delayed : Sensitizing effects.

Section 5. Fire-Fighting Measures

EXTINGUISHING MEDIA

Suitable : Carbon dioxide, dry chemical, or water spray.

Special Hazards Arising from the Substance or Mixture : Toxic and/or irritating fumes can be produced during burning of this material. Decomposition products may be hazardous (see Section 10 for details on decomposition products).

Advice for Firefighters : Firefighters should wear self-contained breathing apparatus and full protective clothing. Downwind personnel should be evacuated. Do not reseal contaminated containers as pressure buildup may rupture them.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures : Evacuate personnel. Wear suitable PPE as described in Section 8.

Environmental Precautions : Prevent migration into groundwater, sewers, or streams. Land spills may require excavation of contaminated soil. Material should not be released into the environment.

Methods for Containment and Cleaning Up : Ensure adequate ventilation. Contain any spills with dikes or adsorbents. Material may be soaked with a dilute ammonium hydroxide or water/alcohol mixture to react isocyanate. Allow time for reaction to be complete before disposal. Dike spillage.

Section 7. Handling and Storage

HANDLING PRECAUTIONS

Precautions for Safe Handling : Use in a well ventilated area, using good industrial hygiene practices. Avoid contact with eyes, skin, and clothing, and wear proper PPE (see Section 8).

STORAGE REQUIREMENTS

Conditions for Safe Storage, Including Any Incompatibilities : Store material at ambient temperature and pressure. Keep away from sources of direct heat and moisture. Keep container tightly closed when not in use, and seal with a nitrogen blanket. Moisture contamination may evolve carbon dioxide gas, which may cause containers to pressurize. Material is stable under normal conditions.

Section 8. Exposure Controls/Personal Protection

Engineering Controls : Provide local exhaust ventilation to keep airborne concentrations below the recommended occupational exposure limits.

Personal Protective Equipment : HMIS PP, C | Safety Glasses, Gloves, Apron.

Type of Protection (Minimum Suggested Equipment)

Hand: Chemical resistant gloves (e.g. nitrile, latex, butyl rubber).
Eye: Safety glasses with side shields or safety goggles.
Skin: Impervious clothing, including but not limited to apron, full body suit, chemical resistant shoes or shoe covers. Use long sleeves at a minimum.
Respiratory: If concentrations are above the occupational exposure limits, an approved respirator should be used (air-purifying or air supplied).

OCCUPATIONAL EXPOSURE LIMITS

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Chemical Name	Limit Type	Value	Comments
Toluene Diisocyanate	PEL Ceiling	0.02ppm	OSHA Guideline
Toluene Diisocyanate	PEL-TWA	0.005 ppm	OSHA Guideline
Toluene Diisocyanate	TLV-STEL	0.02 ppm	ACGIH Guideline
Toluene Diisocyanate	TLV-TWA	0.005 ppm	ACGIH Guideline
Toluene Diisocyanate	IDLH Conc.	2.5 ppm	NIOSH Guideline

Section 9. Physical and Chemical Properties

Appearance	:	Clear to amber.
Physical State	:	Liquid
Odor	:	Slight isocyanate.
Odor Threshold	:	N/A
Particle Size	:	N/A
Spec Gravity/Density	:	1.11 (25°C/77°F)
Viscosity:	:	1850cP (25°C/77°F)
Boiling Point	:	No data available.
Flammability	:	N/A
Partition Coefficient	:	No data available.
Vapor Pressure	:	TDI: 0.0003 mm Hg
pH	:	No data available.
Evaporation Rate	:	No data available.
Decomp Temp	:	>150°C (302°F)
Solubility	:	Not soluble in water (reacts with water).
Freezing/Melting Pt.	:	No data available.
Flash Point	:	Closed Cup: >110°C (>230°F)
Vapor Density	:	No data available.
Auto-Ignition Temp	:	No data available.
UFL/LFL	:	N/A

Section 10. Stability and Reactivity

Reactivity	:	This material will react slowly with water or moisture, but under normal use, no hazardous reaction will occur.
Chemical Stability	:	Stable under normal use/storage conditions.
Conditions to Avoid	:	Exposure to extreme temperatures, sources of moisture, and contact with incompatible materials should be avoided.
Materials to Avoid	:	Water, alcohols, amines, strong oxidizing agents, and strong bases may react with the evolution of heat and carbon dioxide.
Hazardous Decomposition	:	Hydrogen cyanide, carbon oxides, nitrogen oxides, and isocyanate vapors.
Hazardous Polymerization	:	No dangerous reactions will occur under normal use/storage conditions.

Section 11. Toxicological Information

INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Toxicity (Product)	:	No data available on product.
Acute Toxicity (toluene diisocyanate)	:	LC50/LD50 data Inhalation: 0.48mg/L (rat, 1 hour) Oral: 5000mg/kg (rat) Dermal: >9400mg/kg (rabbit)
Skin and Eye Corrosion/ Irritation (product)	:	No data available on product.
Skin and Eye Corrosion/ Irritation (toluene diisocyanate):	:	Route of Exposure/Species/Results Dermal/Rabbit/Moderate irritation (category 2) Eye/Rabbit/Severe irritation (category 2)
Sensitization (Product)	:	No data available on product.
Sensitization (toluene diisocyanate)	:	Route of Exposure/Species/Results Dermal/guinea pig/Category 1A Inhalation/guinea pig/Category 1A
Mutagenicity	:	No data available on product.
Carcinogenicity	:	No data available on product. TDI is listed as a Group 2B carcinogen by IARC.
Reproductive Toxicity	:	No data available on product.
STOT-SE:	:	No data available on product.
Sensitization (toluene diisocyanate)	:	Respiratory tract irritant.
STOT-RE:	:	No data available on product.
Aspiration	:	Not an aspiration hazard.

Section 12. Ecological Information

Toxicity (Product)	:	No data available.
Toluene Diisocyanate:	:	Endpoint/Species/Duration/Result LC50/Rainbow trout/96 hours/133mg/L EC50/Water flea (Daphnid)/48 hours/12.5mg/L ErC50/Algae/96 hours/3230-4300mg/L
Persistence and Degradability	:	Product is not expected to rapidly biodegrade.
Bioaccumulative Potential	:	No data available on product.
Mobility in Soil	:	No data available on product.

Section 13. Disposal Considerations

Waste Treatments Methods : Follow all applicable local, state, and federal disposal regulations.

Section 14. Transport Information

14.1 UN Number : 2206

14.2 Proper Shipping Name : Isocyanates, Toxic, N.O.S. (Toluene Diisocyanate).

14.3 Hazard Class : 6.1

14.4 Packing Group : PG III

14.5 Environmental Hazards : Category 3 (Acute Toxicity).

14.6 Special Precautions for the User : Not regulated.

Section 15. Regulatory Information

COMPONENT (CAS#) [%] - CODES

RQ(100LBS), Toluene diisocyanate (mixed isomers) (26471-62-5) [16-18%] CERCLA, HAP, MASS, NJEHS, NJHS, PA, PROP65, SARA313, TOXICRCRA, TSCA, TXHWL

REGULATORY CODE DESCRIPTIONS

RQ = Reportable Quantity

TSCA = Toxic Substances Control Act

CERCLA = Superfund Clean Up Substance

HAP= Hazardous Air Pollutants

MASS = MA Massachusetts Hazardous Substances

PROP65 = CA Prop 65

SARA313 = SARA 313 Title III Toxic Chemicals

TOXICRCRA = RCRA Toxic Hazardoud Wastes (U-List)

TXHWL = TX Hazardous Waste List

CHEMICAL INVENTORY STATUS

Country / Inventory / Status

United States / TSCA / On the inventory.

Canada / DSL / On the inventory.

Section 16. Other Information

HMIS III : Health = 2 (Chronic)
Fire = 1
Physical Hazard = 1

HMIS PPE : C-Safety Glasses, Gloves, Apron

Abbreviation Key : PEL - permissible exposure limit
TWA - time weighted average
TLV - threshold limit value
STEL - short term exposure limit
IDLH - immediately dangerous to life and health
OSHA - Occupational Safety and Health Administration
ACGIH - American Conference of Governmental Industrial Hygienists
NIOSH - National Institute for Occupational Safety and Health
N/A - Not applicable
LC50 - lethal concentration to 50% of test subjects
LD50 - lethal dose to 50% of test subjects
STOT-SE - Specific target organ toxicity (single exposure)
STOT-RE - Specific target organ toxicity (repeated exposure)
EC50 - effective concentration that causes 50% of response from test subjects
ErC50 - EC50 in terms of growth rate reduction
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
SARA - Superfund Amendments and Reauthorization Act
TSCA - Toxic Substances Control Act
DSL - Domestic Substances List
NDSL - Non-Domestic Substances List

This SDS complies with 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD, USA) and GHS. Although the information and recommendations set forth herein (hereinafter “information”) are presented in good faith and believed to be correct as of the date hereof, D.S. Brown Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will D.S. Brown Company be responsible for damages of any nature whatsoever resulting from the use of, misuse or reliance upon information. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer’s responsibility to ensure its activities comply with federal, state or provincial and local laws and regulations.

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