

SAFETY DATA SHEET

STERI-COAT 200 WATER REDUCABLE COMP B

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: STERI-COAT 200 WATER REDUCABLE COMP B
PRODUCT CODE: #STC200B
PRODUCT USE: Aliphatic isocyanate resin component of 2 part Aliphatic Urethane Coating.
MANUFACTURER
DUDICK, INC.
1818 MILLER PARKWAY
STREETSBORO, OH, 44241
330-562-1970

24 HR. EMERGENCY TELEPHONE NUMBER
CHEM-TEL (US Transportation): (800)255-3924
CHEM-TEL (International Transportation) : +01-813-248-0585

2. HAZARDS IDENTIFICATION

CLASSIFICATION:

Acute Toxicity - Inhalation - Category 4
Skin Sensitizer - Category 1
Serious Eye Damage/Eye Irritation - Category 2
Respiratory Sensitizer - Category 1

GHS LABEL ELEMENTS:



SIGNAL WORD: Danger

HAZARD STATEMENTS:

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

PRECAUTIONARY STATEMENTS :

P285 In case of inadequate ventilation wear respiratory protection.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P202 Do not handle until all safety precautions have been read and understood.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with local, regional, and federal regulations.
P261 Avoid breathing vapors/spray.
P264 Wash all contacted body parts thoroughly after handling.

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P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Chemical Name	Weight %	CAS Number
Hexane, 1,6-diisocyanato-, homopolymer	70% to 80%	28182-81-2
Hydrophillic polyisocyanate of HDI	15% to 25%	666723-27-9
Hexamethylene-1,6-Diisocyanate	0% to 0.2%	822-06-0

No further information available for this product.

4. FIRST AID MEASURES

EYES: Hold open eyelids and flush with copious amounts of water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical advice/attention.

SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

INGESTION: Never give anything by mouth to an unconscious person. Rinse mouth out with water.

Consult physician.

INHALATION: Move to an area free from further exposure. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening.

NOTES TO PHYSICIAN: Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound. Inhalation: Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Alcohol resistant foam; Carbon Dioxide (CO₂); dry chemical; dry sand; use water to keep containers cool.

UNSUITABLE EXTINGUISHING MEDIA: Do not use high pressure water jet as this may spread the area of the fire.

SPECIFIC HAZARDS IN CASE OF FIRE: Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO₂ formed). Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be

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extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTION FOR FIRE FIGHTERS: Wear self-contained breathing apparatus (SCBA) in positive pressure mode and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Isolate area; ensure adequate ventilation; remove all sources of ignition; use appropriate personal protection equipment; avoid breathing mist, vapors, spray; avoid contact with skin, eyes and clothing; keep unnecessary and unprotected personnel from entering the involved area.

ENVIRONMENTAL PRECAUTIONS: Halt the flow of material as soon as practical using appropriate barriers; Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches, waterways by using sand, earth or appropriate barriers.

METHOD AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Minor Spill or Leak (Wet surface): Cover spill area with suitable absorbent material (Kitty Litter, Oil-Dri®, etc). Saturate absorbent material with neutralization solution and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat applications of decontamination solution, with scrubbing, followed by absorbent until the surface is decontaminated. Check for residual surface contamination. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (CO₂) escape.

Neutralization solution:

A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Use only in well-ventilated areas. Avoid contact with skin and eyes. Avoid breathing vapors and/or aerosols. Emergency showers and eye wash stations should be readily accessible. Use personal protective equipment. When using, do not eat, drink or smoke.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES: Store in tightly closed containers to prevent contamination. Do not reseal if contamination is suspected.

Storage temperature:

minimum:

7 °C (44.6°F)

maximum:

50°C (122 °F)

8. EXPOSURE CONTROLS\PERSONAL PROTECTION

EXPOSURE LIMITS

Components	CAS	Limits
Hexane, 1,6-diisocyanato-, homopolymer	28182-81-2	None established.
Hydrophillic polyisocyanate of HDI	666723-27-9	None established.
Hexamethylene-1,6-Diisocyanate	822-06-0	ACGIH TLV; TWA 0.005 ppm NIOSH REL; TWA 0.005 ppm

ENGINEERING CONTROLS: Ventilation:

Use local exhaust ventilation, or other engineering controls to maintain airborne levels requirements or guidelines.

General ventilation may not be sufficient.

PERSONAL PROTECTIVE EQUIPMENT

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RESPIRATORY PROTECTION: A respirator that is recommended or approved for use in isocyanate-containing environments (air-purifying or fresh air-supplied) may be necessary for spray applications which may produce inhalation exposures. A supplied-air respirator (either positive pressure or continuous flow-type) is recommended. NIOSH-certified End of Service Life Indicator or a change schedule based upon objective information or data should be used to ensure that cartridges are replaced before the end of their service life. In addition, prefilters should be changed whenever breathing resistance increases due to particulate buildup.

EYES PROTECTION: Full face shield with goggles underneath.

SKIN PROTECTION: Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact., Gloves, long sleeved shirts and pants. Nitrile rubber gloves., Butyl rubber gloves., Neoprene gloves

WORK HYGIENIC PRACTICES: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating. Wash contaminated clothing before reuse. Eye wash stations and emergency showers should be available.

OTHER USE PRECAUTIONS: All employees who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Employees who have a history of adult asthma should be restricted from work with isocyanates. Employees with a history of prior isocyanate sensitization should be excluded from further work with isocyanates.

COMMENTS: No data available for this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Viscous liquid

COLOR: Clear

FLASH POINT AND METHOD: No data available for this product.

AUTO-IGNITION TEMPERATURE: Not Determined.

BOILING POINT/RANGE: No data available for this product.

MELTING POINT: Not Determined.

VAPOUR PRESSURE: Not determined.

VAPOUR DENSITY: Heavier than air.

SOLUBILITY: Not determined.

ODOR/THRESHOLD: Mild, characteristic.

LOWER / UPPER FLAMMABLE LIMITS: No data available for this product.

DENSITY: 1.1529

EVAPORATION RATE: Slower than ether.

PARTITION COEFFICIENT: Not determined.

pH: Not Applicable.

DECOMPOSITION TEMPERATURE: Not determined.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: This product is stable under normal storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Contact with moisture, other materials that react with isocyanates, or temperatures above 350 F (177 C), may cause rapid/violent polymerization.

CONDITIONS TO AVOID: Heat, flames and sparks. Protect from freezing.

MATERIALS TO AVOID: Water, Amines, Strong acids, bases, Alcohols, Copper alloys.

HAZARDOUS DECOMPOSITION PRODUCTS: By Fire and High Heat: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke., Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds.

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11. TOXICOLOGICAL INFORMATION

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

ACUTE EFFECTS:

EYE CONTACT: May cause eye irritation. Corneal injury is unlikely.

SKIN CONTACT: No data available for this product.

INHALATION: Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system. Inhalation of aerosol may cause irritation to the upper respiratory tract. May cause nose, throat, and lung irritation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations.

INGESTION: Not classified

TARGET ORGAN: No data available for this product.

CHRONIC EFFECTS: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. May cause allergic skin reaction, eye disease, skin disorders and allergies. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations.

TOXICITY VALUES: Data on the product is not available.

Please find the data available for the components.

Toxicity Data for Homopolymer of Hexamethylene Diisocyanate

Note:

Data is based on a similar product, including residual monomer.

Acute Oral Toxicity

LD50: \geq 5000 mg/kg (rat, female) (OECD Test Guideline 423)

Toxicological studies at the product

Acute Inhalation Toxicity

LC50: 0.39 mg/l, 4 h (rat, female) (OECD Test Guideline 403)

Toxicological studies of a comparable product. The test atmosphere generated in the animal study is not representative of workplace environments, how the substance is placed on the market, and how it can reasonably be expected to be used. Therefore the test result cannot be directly applied for the purpose of assessing hazard. Based on the weight of the evidence, a modified classification for acute inhalation toxicity is justified.

Acute Dermal Toxicity

LD50: $>$ 2000 mg/kg (rat, male/female) (OECD Test Guideline 402)

Studies of a comparable product.

LD50: $>$ 2000 mg/kg (rabbit, male/female)

Studies of a comparable product.

Skin Irritation

rabbit, OECD Test Guideline 404, slight irritant

Toxicological studies at the product

Eye Irritation

rabbit, OECD Test Guideline 405, slight irritant

Toxicological studies at the product

Sensitization

Skin sensitization (local lymph node assay (LLNA)):: Causes sensitisation. (mouse, OECD Test Guideline 429)

Toxicological studies at the product

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Respiratory sensitization: sensitizer
Studies of a comparable product.

Repeated Dose Toxicity

90 d, Inhalative: NOAEL: 3,3, (rat, male/female, 6 hours a day, 5 days a week)
Toxicological studies of a comparable product. Evidence of damage to organs other than the organs of respiration was not found.

Mutagenicity

Genetic Toxicity in Vitro:

Salmonella/microsome test (Ames test): No indication of mutagenic effects. (Metabolic Activation: with/without)

Toxicological studies at the product

Chromosome aberration test in vitro: negative (Chinese hamster V79 cell line, Metabolic Activation: with/without) Toxicological studies of a comparable product.

Point mutation in mammalian cells (HPRT test): negative (Metabolic Activation: with/without)

Toxicological studies of a comparable product.

Toxicity Data for Hydrophilic Aliphatic Polyisocyanate based on Hexamethylene Diisocyanate Note: Data is based on a similar product, including residual monomer.

Acute Oral Toxicity

LD50: >= 5000 mg/kg (rat) (OECD Test Guideline 423)

Studies of a comparable product.

Acute Inhalation Toxicity

LC50: 0.158 mg/l, 4 h (rat, male/female) (OECD Test Guideline 403)

Toxicological studies of a comparable product. The test atmosphere generated in the animal study is not representative of workplace environments, how the substance is placed on the market, and how it can reasonably be expected to be used. Therefore the test result cannot be directly applied for the purpose of assessing hazard. Based on the weight of the evidence, a modified classification for acute inhalation toxicity is justified.

Skin Irritation

rabbit, OECD Test Guideline 404, An irritant effect cannot be distinguished from a mechanical load caused by the removal of the test specimen.

Toxicological studies of a comparable product.

Eye Irritation

rabbit, OECD Test Guideline 405, slight irritant

Toxicological studies of a comparable product.

Sensitization

Skin sensitization (local lymph node assay (LLNA)):: positive (mouse, OECD Test Guideline 429)

Toxicological studies of a comparable product.

Mutagenicity

Genetic Toxicity in Vitro:

Salmonella/microsome test (Ames test): No indication of mutagenic effects.

Toxicological studies of a comparable product.

Toxicity Data for Hexamethylene-1,6-Diisocyanate

Acute Oral Toxicity

LD50: 746 mg/kg (rat, male) (OECD Test Guideline 401)

LD50: 959 mg/kg (rat, male) (OECD Test Guideline 401)

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Acute Inhalation Toxicity
LC50: 0.124 mg/l, 4 h (rat, male/female) (OECD Test Guideline 403)

Acute Dermal Toxicity
LD50: > 7000 mg/kg (rat, male/female) (OECD Test Guideline 402)

Skin Irritation
rabbit, OECD Test Guideline 404, Corrosive

Eye Irritation
rabbit, OECD Test Guideline 405, Corrosive

Sensitization
dermal: sensitizer (guinea pig, Maximisation Test (GPMT))
Other isocyanates have been shown to produce dermal and respiratory sensitization in several species (guinea pigs, mice, rabbits, dogs). In addition, there is some evidence to suggest that cross-sensitization between different types of diisocyanates may occur.

dermal: sensitizer (Human, Case Report)

Respiratory sensitization: sensitizer (guinea pig)

Repeated Dose Toxicity
2 years, inhalation: NOAEL: < 0.005 ppm, LOAEL: 0.005 ppm, (rat, Male/Female, 6 hrs/day 5 days/week) Irritation to lungs and nasal cavity.

12. ECOLOGICAL INFORMATION

PERSISTENCE AND DEGRADABILITY:

No data available for this product.

BIO-ACCUMULATIVE POTENTIAL:

Not determined.

MOBILITY IN SOIL:

Not determined.

OTHER ADVERSE EFFECTS:

Not known.

ECOTOXICOLOGICAL OTHER INFORMATION:

No data available for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of according to local, state, and federal regulations through a licensed disposal facility.

14. TRANSPORT INFORMATION

UN NUMBER: NA3082

UN PROPER SHIPPING NAME: Other regulated substances, liquid, n.o.s. (contains Hexamethylene-1,6-Diisocyanate)

TRANSPORT HAZARD CLASS:

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TRANSPORT HAZARD SUBCLASS:

Not applicable.

PACKING GROUP: III

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MARINE POLLUTANT Y/N:

No

SPECIAL PRE-CAUTIONS: Reportable Quantity (RQ) 39998 lbs.

When in individual containers of less than the Product RQ, this material ships as non-regulated.

15. REGULATORY INFORMATION

U.S. REGULATIONS:

All components of this product are listed on or exempt from the TSCA Inventory.

U.S. SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES:

FIRE: No

PRESSURE GENERATING: No

REACTIVITY: No

ACUTE: Yes

CHRONIC: Yes

313 REPORTABLE INGREDIENTS:

313 REPORTABLE INGREDIENTS

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: No reportable components

STATE REGULATIONS:

No components are known to be on the California Proposition 65 list.

Massachusetts Right To Know Components

Chemical Name	CAS
Hydrophillic polyisocyanate of HDI	666723-27-9

Pennsylvania Right To Know Components

Chemical Name	CAS
Hexane, 1,6-diisocyanato-, homopolymer	28182-81-2
Hydrophillic polyisocyanate of HDI	666723-27-9

New Jersey Right To Know Components

Chemical Name	CAS
Hexane, 1,6-diisocyanato-, homopolymer	28182-81-2
Hydrophillic polyisocyanate of HDI	666723-27-9

OTHER GOVT. REGULATIONS: No other information available

16. OTHER INFORMATION

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