



Material Safety Data Sheet

Material Name: ULTRABOND TURF PU 1K

ID: NW000085

*** Section 1 - Chemical Product and Company Identification ***

Material Name: ULTRABOND TURF PU 1K

Product Use

Manufacturer Information

USA and Puerto Rico

MAPEI

1144 East Newport Center Drive

Deerfield Beach, FL 33442

Phone: 1-954-246-8888

Canada

MAPEI

2900 Francis-Hughes Avenue

Laval, QC H7L 3J5

Phone: 1-450-662-1212

IN THE EVENT OF A CHEMICAL EMERGENCY INVOLVING A SPILL, LEAK, FIRE, EXPLOSION, EXPOSURE OR ACCIDENT, CONTACT THE FOLLOWING NUMBERS:

Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-613-996-6666

*** Section 2 - Hazards Identification ***

Emergency Overview

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

White to beige paste. Odorless This product is irritating to the eyes and skin. May cause sensitization by inhalation and skin contact. This product contains isocyanates.

Hazard Statements

CAUTION! IRRITANT. ALLERGEN. MAY IRRITATE EYES. MAY IRRITATE SKIN. May cause sensitization by inhalation and skin contact. Wear suitable gloves, eye/face protection, and respiratory protection. Wear suitable protective clothing. Keep out of the reach of children.

Potential Health Effects: Eyes

This product may cause irritation to the eyes.

Potential Health Effects: Skin

This product may cause irritation to the skin. Prolonged or repeated skin contact may cause skin irritation or allergic skin sensitization reaction.

Potential Health Effects: Ingestion

Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Potential Health Effects: Inhalation

None identified.

Medical Conditions Aggravated by Exposure

Hypersensitivity to product, allergies, and skin or respiratory disorders

Potential Environmental Effects

None identified.

HMIS Ratings: Health: 2 Fire: 1 Reactivity: 0 Pers. Prot.: Safety glasses, gloves, synthetic apron, vapor respirator

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

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*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
26447-40-5	Methylenediphenyl diisocyanate (MDI)	15-40
101-68-8	4,4' -Methylenediphenyl diisocyanate	10-30
67762-90-7	Dimethyl silicone polymer with silica	3-7
67784-80-9	Soybean oil, methyl ester	1-5
471-34-1	Calcium carbonate	1-5
6425-39-4	2,2-Dimorpholinodiethylether	0.5-1.5
4083-64-1	PTSI, Tosyl isocyanate	0.5-1.5

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, get medical attention.

First Aid: Skin

Flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion

Flush out mouth with water. If ingestion of a large amount does occur, seek medical attention. Do not induce vomiting.

First Aid: Inhalation

Immediately remove the affected person to fresh air. If symptoms persist, get medical attention.

First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.

Closed containers may rupture due to a build-up of pressure when exposed to extreme heat.

Hazardous Combustion Products

Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical (preferred), foam, water.

Unsuitable Extinguishing Media

None identified.

Specific Hazards Arising From the Chemical

None identified.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Personal Precautions

Wear appropriate protective equipment and clothing during clean-up.

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Containment Procedures

Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Scoop up used absorbent into drums or other appropriate container.

Environmental Precautions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Clean-Up Procedures

Attempt to reclaim the free product, if this is possible. Shovel the material into waste container. Thoroughly wash the area with water after a spill or leak clean-up. Wear appropriate protective equipment and clothing during clean-up.

Evacuation Procedures

None identified.

Special Procedures

Regulations vary. Consult local authorities before disposal.

*** Section 7 - Handling and Storage ***

Handling Procedures

Do not get in eyes. Do not get on skin or clothing. Keep out of the reach of children. Use this product with adequate ventilation. Wash hands after handling and before eating.

Storage Procedures

Store at ambient temperature and atmospheric pressure. Store away from strong oxidizers.

*** Section 8 - Exposure Controls / Personal Protection ***

A: Component Exposure Limits

4,4'-Methylenediphenyl diisocyanate (101-68-8)

ACGIH:	0.005 ppm TWA
OSHA:	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling
NIOSH:	0.005 ppm TWA; 0.05 mg/m3 TWA 0.020 ppm Ceiling (10 min); 0.2 mg/m3 Ceiling (10 min)
Alberta:	0.005 ppm TWA; 0.05 mg/m3 TWA
British Columbia:	Sensitizer 0.005 ppm TWA 0.01 ppm Ceiling Skin notation
Manitoba:	0.005 ppm TWA
New Brunswick:	0.005 ppm TWA; 0.051 mg/m3 TWA
NW Territories:	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling
Nova Scotia:	0.005 ppm TWA
Nunavut:	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling
Ontario:	0.005 ppm TWA (listed under Isocyanates, organic compounds); 0.02 ppm Ceiling (listed under Isocyanates, organic compounds) 0.005 ppm TWA (designated substance regulation, listed under Isocyanates, organic compounds); 0.005 ppm TWA (applies to workplaces to which the designated substance regulation does not apply) 0.02 ppm Ceiling (designated substances regulation, listed under Isocyanates, organic compounds)
Quebec:	0.005 ppm TWAEV; 0.051 mg/m3 TWAEV
Saskatchewan:	0.015 ppm STEL 0.005 ppm TWA
Yukon:	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling

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Calcium carbonate (471-34-1)

NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
Alberta:	10 mg/m3 TWA
NW Territories:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Nunavut:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Quebec:	10 mg/m3 TWAEV (total dust)
Saskatchewan:	20 mg/m3 STEL (listed under Limestone) 10 mg/m3 TWA (listed under Limestone)
Yukon:	20 mg/m3 STEL 30 mppcf TWA; 10 mg/m3 TWA

Engineering Controls

Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields or goggles.

Personal Protective Equipment: Skin

The use of nitrile-latex gloves is recommended. Work clothing sufficient to prevent all skin contact should be worn, such as coveralls and long sleeves. Replace ripped or damaged gloves immediately. May cause sensitization by skin contact.

Personal Protective Equipment: Respiratory

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Personal Protective Equipment: General

Launder contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.

*** Section 9 - Physical & Chemical Properties ***

Appearance:	White to beige paste.	Odor:	Odorless
Physical State:	Paste	pH:	NA
Vapor Pressure:	NA	Vapor Density:	NA
Boiling Point:	NA	Melting Point:	NA
Solubility (H2O):	Insoluble	Specific Gravity:	1.02 - 1.06 g/cc
Evaporation Rate:	NA	VOC:	36 g/L
Octanol/H2O Coeff.:	NA	Flash Point:	>200°F
Flash Point Method:	CC	Upper Flammability Limit (UFL):	NA
Lower Flammability Limit (LFL):	NA	Burning Rate:	NA
Auto Ignition:	NA		

Physical Properties: Additional Information

The data provided in this section is to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Do not freeze.

Incompatibility

This product may react with strong oxidizing agents.

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Hazardous Decomposition

Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Possibility of Hazardous Reactions

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Methylenediphenyl diisocyanate (MDI) (26447-40-5)

Inhalation LC50 Rat 0.369 mg/L 4 h; Oral LD50 Rat >7400 mg/kg; Dermal LD50 Rabbit >6200 mg/kg

4,4'-Methylenediphenyl diisocyanate (101-68-8)

Oral LD50 Rat 9200 mg/kg

PTSI, Tosyl isocyanate (4083-64-1)

Inhalation LC50 Rat >640 ppm 1 h; Oral LD50 Rat 2234 mg/kg

Calcium carbonate (471-34-1)

Oral LD50 Rat 6450 mg/kg

Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

Methylenediphenyl diisocyanate (MDI) (26447-40-5)

IARC:	Monograph 71 [1999]; Supplement 7 [1987]; Monograph 19 [1979] (Group 3 (not classifiable))
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4,4'-Methylenediphenyl diisocyanate (101-68-8)

IARC:	Monograph 71 [1999]; Supplement 7 [1987]; Monograph 19 [1979] (Group 3 (not classifiable))
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Sensitization

This product may be sensitizing by prolonged skin contact or inhalation.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Methylenediphenyl diisocyanate (MDI) (26447-40-5)

Test & Species		Conditions
96 Hr EC50 Skeletonema costatum	3230 mg/L	
24 Hr EC50 Daphnia magna	>1000 mg/L	

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*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

No additional information available.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

International Transportation Regulations

Not regulated as dangerous goods.

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

All of the components of this product are listed on, or are exempted from listing on the U.S. EPA TSCA Inventory of Chemical Substances. All components of this product are included, or are exempt from inclusion, in the Canadian Domestic Substance List unless otherwise noted.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

4,4'-Methylenediphenyl diisocyanate (101-68-8)

SARA 313: 1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
4,4'-Methylenediphenyl diisocyanate	101-68-8	Yes	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! This product contains a chemical known to the state of California to cause cancer.

Canadian WHMIS Information

A: General Product Information

D2A, D2B



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B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
4,4' -Methylenediphenyl diisocyanate	101-68-8	0.1 %

Additional Regulatory Information

A: General Product Information

Supplier(s) of proprietary component(s) state that these components are contained on the TSCA inventory.

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Methylenediphenyl diisocyanate (MDI)	26447-40-5	Yes	DSL	EINECS
4,4' -Methylenediphenyl diisocyanate	101-68-8	Yes	DSL	EINECS
PTSI, Tosyl isocyanate	4083-64-1	Yes	DSL	EINECS
Dimethyl silicone polymer with silica	67762-90-7	Yes	DSL	No
Soybean oil, methyl ester	67784-80-9	Yes	DSL	EINECS
Calcium carbonate	471-34-1	Yes	DSL	EINECS
2,2-Dimorpholinodiethylether	6425-39-4	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

Reference

T1-2923-52

Other Information

Disclaimer: Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; AS = Standards Australia; BLV=Biological Limit Values; CAN = Canadian DSL and NDSL Inventories status; CAS = Chemical Abstracts Service; CC = Closed Cup; CFR = Code of Federal Regulations; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EPA = Environmental Protection Agency; EU = European Union; g/L = grams per Liter; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; mg/kg = milligrams per kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; NA, N/A, S.O. = Not available or Not Applicable; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NOHSC = National Occupational Health & Safety Commission; NTP = National Toxicology Program; OC = Open Cup; OSHA = Occupational Safety and Health Administration; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average; TWAEV = Time Weighted Average Exposure Value; WHMIS = Workplace Hazardous Materials Information System

Contact: Product Safety Representative

Contact Phone: 1-954-246-8888

End of Sheet NW000085