

SAFETY DATA SHEET

REVISION DATE: 07-01-2017

SUPERSEDES: 04-15-2016

SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER**PRODUCT INFORMATION**

PRODUCT: TEC 149 2C TURF ADHESIVE
PRODUCT DESCRIPTION: Urethane 2 part system
INTENDED USE: Adhesive
PRODUCT IDENTIFIER: 838170PM

COMPANY INFORMATION

H.B. Fuller Company
1200 Willow Lake Boulevard
Vadnais Heights, MN 55110
Telephone: 888-423-8553

Medical Emergency Phone Number (24 Hours): 1-888-853-1758
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION**GHS Hazard****Symbols:****GHS Signal Word:**

Danger

GHS Classification:

Respiratory Sensitisation Category 1; Skin Sensitisation Category 1; Acute Toxicity - Dermal Category 2; Skin Corrosion/Irritation Category 2; Serious Eye Damage/Eye Irritation Category 2; Carcinogenicity Category 2; Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2; Hazardous to the aquatic environment - Acute Category 2; Acute Toxicity - Inhalation Vapour Category 3

GHS Hazard**Phrases:**

Fatal in contact with skin.; Causes skin irritation.; May cause an allergic skin reaction.; Causes serious eye irritation.; Toxic if inhaled.; May cause allergy or asthma symptoms or breathing difficulties if inhaled.; Suspected of causing cancer.; May cause damage to organs through prolonged or repeated exposure.; Toxic to aquatic life.

GHS Precautions:**Safety Precautions:**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

First Aid Measures:

IF ON SKIN: Wash with plenty of soap and water. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Get medical advice/attention if you feel unwell. If experiencing respiratory symptoms: Call a

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POISON CENTER or doctor/physician. P361+P364 - Take off immediately all contaminated clothing and wash it before reuse. P362+P364 - Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse.

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	Classification	Note
Calcium carbonate	471-34-1	50 - 70		*(see below)
Polymethylene polyphenyl isocyanate	9016-87-9	5 - 10	Acute Tox. 1; H310 Acute Tox. 4; H332 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT RE 2; H373 STOT SE 3; H335, H336	
Oligomeric methylene bisphenyl diisocyanate (MDI)	32055-14-4	1 - 5	Acute Tox. 4; H332 Carc. 2; H351 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT RE 2; H373	

*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

SECTION 4: FIRST AID MEASURES

IF IN EYES: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

IF ON SKIN: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

IF INHALED: Remove to fresh air. Restore breathing, if necessary. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting. Seek medical attention immediately. Drink two glasses of water or milk to dilute. Do not give anything by mouth to an unconscious person. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

SECTION 5: FIRE FIGHTING MEASURES**EXTINGUISHING MEDIA:**

Use water spray, foam, dry chemical or carbon dioxide.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers. Material will burn in a fire.

SPECIAL FIRE FIGHTING INSTRUCTIONS:

Persons exposed to products of combustion should wear self-

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HAZARDOUS COMBUSTION PRODUCTS: contained breathing apparatus and full protective equipment.
Carbon dioxide, Carbon monoxide Nitrogen containing gases
Hydrogen cyanide

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred.

METHODS FOR CLEAN-UP: Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 7: HANDLING AND STORAGE

Handling: Avoid contacting and avoid breathing the material. Use only in a well ventilated area.

Storage: Store in a cool, dry place.
Consult the Technical Data Sheet for specific storage instructions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE LIMITS:**

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Calcium carbonate	* (see below)	No data available.	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)

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ENGINEERING CONTROL METHODS:

VENTILATION: Use local exhaust ventilation or other engineering controls to minimize exposures.

EYE PROTECTION: Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Have an eye wash station available.

SKIN PROTECTION: Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt. An apron may be appropriate if splashing can occur.

GLOVES: Nitrile

RESPIRATORY PROTECTION: Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Use supplied-air respiratory equipment as required.

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Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	Green
ODOR:	Characteristic
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	> 204°C (400°F) COC
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	118.50
SPECIFIC GRAVITY:	1.700
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	100.0
VOC, weight percent	Not determined

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Water Alcohols Amines Strong acids Strong alkalies
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide Hydrogen cyanide Nitrogen containing gases

SECTION 11: TOXICOLOGICAL INFORMATION**Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
Polymethylene polyphenyl isocyanate	Oral LD50 Rat 49 g/kg INHALATION LC50-4H (MIST) Rat 490.00 MG/M3 Dermal LD50 Rabbit > 9.40 G/KG)
Diisononyl phthalate	Dermal LD50 Rabbit > 3,160.00 mg/kg

This product is a mixture. Unless noted, the information below is based on components.

Skin corrosion / irritation: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Serious eye damage / irritation :Can cause moderate irritation, tearing and reddening.

Respiratory / skin sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.

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Germ cell mutagenicity: No data available.
Carcinogenicity: May cause tumors based on tests with laboratory animals.
Reproductive toxicity: No data available.
Specific target organ toxicity-single exposure: No data available.
Respiratory irritation / Narcotic effects: No data available.
Specific target organ toxicity-repeated exposure: No data available.
Target organs potentially affected by exposure: Lungs Skin
Aspiration hazard: Not an aspiration hazard.

Medical Conditions Aggravated by Exposure: Skin disease including eczema and sensitization, Lung disease, Persons with existing asthmatic conditions may experience difficulty breathing. Persons who have been sensitized to isocyanates may experience symptoms at very low exposure levels.

SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available for this product.
MOBILITY: No data available.
PERSISTENCE: No data available.
BIOACCUMULATION: No data available.

This product has not been tested for ecological effects. Relevant information for components is listed below:

Component:	Ecotoxicity values:
Diisononyl phthalate	Acute Toxicity (Fish): 96 Hr LC50 Ictalurus punctatus: 0.42 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: >0.16 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: >0.19 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: >0.14 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >0.17 mg/L [static] Acute Toxicity (Daphnia): 48 Hr EC50 Daphnia magna: >0.086 mg/L Acute Toxicity (Algae): 96 Hr EC50 Pseudokirchneriella subcapitata: >2.8 mg/L
Zeolite	Acute Toxicity (Fish): Not established Acute Toxicity (Daphnia): Not established Acute Toxicity (Algae): 96 Hr EC50 Desmodesmus subspicatus: 18 mg/L

SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Dispose of in an approved landfill. Consult your state, local or provincial authorities and your local waste vendor for more restrictive requirements.

SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

US DOT: NOT REGULATED
IATA: NOT REGULATED
IMDG: NOT REGULATED

SECTION 15: REGULATORY INFORMATION**INVENTORY STATUS**

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL: The components of this product are included on the DSL or are exempt from DSL requirements.

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EUROPEAN REACH: As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.

AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.

KOREAN TCCL: This product is in compliance with the Korean Existing Chemicals List requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at reg.request@hbfuller.com to request an export review.

FEDERAL REPORTING

*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
Polymeric diphenylmethane diisocyanate	9016-87-9	5 - 10

STATE REPORTING

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Diisononyl phthalate (Carcinogen)	68515-48-0	1 - 5

Substances of Very High Concern (SVHC) Content:

Unless listed below, this product does not contain SVHC's at 0.1% or greater, as of the version date of this SDS.

SECTION 16: OTHER INFORMATION

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This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 2 FLAMMABILITY -- 1 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

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The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to the H.B. Fuller Company from its suppliers, and because the H.B. Fuller Company has no control over the conditions of handling and use, the H.B. Fuller Company makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and the H.B. Fuller Company assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Company products to comply with all applicable federal, state and local laws and regulations.