

SAFETY DATA SHEET



SECTION 1 PRODUCT & COMPANY IDENTIFICATION

BEYNON Sports Surfaces, Inc.

16 Alt Road
Hunt Valley, MD 21030
Phone: (410) 771-9473

TRANSPORTATION EMERGENCY

CALL CHEMTREC (24 hr): 800-424-9300
DISTRICT OF COLUMBIA: 202-483-7616

PRODUCT NAME: **BEYPRIM 20 PRIMER**
CHEMICAL FAMILY: Aromatic Isocyanate Prepolymer
CHEMICAL NAME: Diphenylmethane Diisocyanate (MDI) Prepolymer
SYNONYMS: Modified Diphenylmethane Diisocyanate Blend
RECOMMENDED USE: For Commercial use only.
RESTRICTIONS ON USE: Avoid water, alcohol, strong bases, substances and products that react with isocyanates.

SECTION 2 HAZARD(S) IDENTIFICATION

	<u>GHS Classification</u>	<u>HAZARD STATEMENT:</u>
Flammable liquids:	Category 2	Highly Flammable liquid and vapor
Acute toxicity (Inhalation):	Category 4	Harmful if inhaled.
Acute Toxicity (Oral):	Category 5	May be harmful if swallowed.
Skin irritation:	Category 2	Causes skin irritation.
Skin sensitization:	Category 1	May cause an allergic skin reaction.
Respiratory sensitization:	Category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Specific target organ toxicity - single exposure:	Category 3	(Respiratory system) May cause respiratory irritation.
Specific target organ toxicity- repeated exposure:	Category 1	Causes damage to Respiratory Tract through prolonged or repeated exposure if inhaled.
Eye irritation:	Category 2B	Causes eye irritation

PRECAUTIONS:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/ lighting/ equipment. Use only non-sparking tools. Take action to prevent static discharge. In case of fire, use dry chemical, dry sand, or alcohol-resistant foam for extinction. Do not use high volume water stream.
Use only outdoors or in a well-ventilated area. Do not breathe dust/fumes/gas/ mist/vapors/sprays. In case of inadequate ventilation or exposures over the limit, wear respiratory protection. If experiencing respiratory symptoms: Call a doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell. IF EXPOSED: call a doctor.
IF ON SKIN: Wash with plenty of water and soap. Cleaning very soon after exposure is important, and a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy

DANGER!



to do. Continue rinsing. If eye irritation persists: Get medical attention.
 Wash with plenty of water and soap thoroughly after handling. Do not eat, drink, or smoke during work.
 Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Dispose of
 contents and container in accordance with all federal, state, and local regulations.



PPE:



for spray applications
and exposures above
limits

This product is a “**Hazardous Chemical**” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>CONCENTRATION (%)</u>
Tert-butyl acetate	540-88-5	≤ 40 %
4,4' Diphenylmethane Diisocyanate- (MDI)	101-68-8	≤ 10 %
2,4' Diphenylmethane Diisocyanate- (MDI)	5873-54-1	0% - ≤ 10 %
Methylenediphenyl diisocyanate Mixed Isomers	26447-40-5	0% - ≤ 10 %

OTHER INGREDIENTS

Isocyanate prepolymer	≤ 60 %
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SECTION 4 FIRST AID MEASURES

Most Important Symptom(s)/Effect(s)

Acute: Isocyanate vapors or mist at concentrations above the exposure limits or guidelines can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) with symptoms of runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing difficulty). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the exposure limits or guidelines with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the exposure limits or guidelines may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g. fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

May cause skin irritation with symptoms of reddening, itching, and swelling. Can cause sensitization. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove.

May cause eye irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing.

May cause irritation of the digestive tract; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

Delayed: Symptoms affecting the respiratory tract can also occur several hours after overexposure.

Eye Contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Get medical attention immediately. Suitable emergency eye wash facility should be immediately available.

Skin Contact: Immediately remove contaminated clothing and shoes. Remove material from skin immediately by washing with soap and plenty of water. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. This may also apply to other isocyanates. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

Inhalation: Move person to fresh air, away from further exposure. Extreme asthmatic reactions that may occur in sensitized persons can be life threatening. 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. Call a physician or transport to a medical facility.

Ingestion: Do NOT induce vomiting. Rinse mouth and then drink plenty of water. Do not give anything by mouth unless the person is fully conscious. Get medical attention.

Note to physician: Specific antidotes or neutralizers to isocyanates do not exist. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

Indication of immediate medical attention and special treatment needed

Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed. Repeated inhalation of high concentrations may cause lung damage, including reduced lung function, which may be permanent. Substances eliciting lower respiratory tract irritation may worsen the asthma-like reactions that may be produced by product exposures. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING EQUIPMENT and MEDIA:

Dry chemical, Carbon dioxide (CO₂), Foam, water spray for large fires.

Extinguishing Media to Avoid: Do not use direct water stream. May spread fire.

SPECIAL FIRE FIGHTING PROCEDURES:

Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. 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.

Hazardous Decomposition Products:

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

Unusual Fire/Explosion Hazards:

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

Additional Information:

Do not allow run-off from firefighting to enter drains or water courses. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6 ACCIDENTAL RELEASE MEASURES

MAJOR SPILL CONTACT: Beynon Sports Surfaces at (410) 771-9473

TRANSPORTATION SPILL: CHEMTREC at (800) 424-9300.

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment. Control the source of the leak. Contain the released material by damming, diking, retaining, or diverting into an appropriate containment area. Absorb or pump off as much of the spilled material as possible.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up:

For small amounts: Absorb isocyanate with suitable absorbent material (see § 40 CFR, sections 260, 264 and 265 for further information). When using absorbent, completely cover the spill area with suitable absorbent material (e.g., vermiculite, kitty litter, Oil-Dri®, etc...). Allow for the absorbent material to absorb the spilled liquid. Shovel the absorbent material into an approved metal container (i.e., 55-gallon salvage drum). Do not fill the container more than 2/3 full to allow for expansion, and do NOT tighten the lid on the container. Repeat application of absorbent material until all liquid has been removed from the surface. Do NOT make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

For large amounts: If temporary control of isocyanate vapor is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.

For residues: The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes.

Additional Neutralization solutions:

- (1) Colorimetric Laboratories Inc. (CLI) decontamination solution.
- (2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10) and 5% npropanol.
- (3) A mixture of 80% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10).
- (4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

Note: Always wear proper PPE when cleaning up an isocyanate spill and using a neutralization solution.

SECTION 7 HANDLING & STORAGE

STORAGE TEMPERATURE: 50 °F (10 °C) - 95 °F (35 °C)

SHELF LIFE: 1 year

SPECIAL SENSITIVITY: Take precautionary measures against static discharges. Substances to avoid include water, amines, strong bases, alcohols, copper alloys.

HANDLING/STORAGE PRECAUTIONS:

Do not breathe vapors, mists, or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected.

Remove sources of ignition. Take precautionary measures against static discharges. Electrical installations / working materials must comply with the technological safety standards. NO smoking, eating and drinking in the application area.

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:

<u>INGREDIENT</u>	<u>CAS #</u>	<u>OSHA Threshold Limit Value:</u>	<u>US. ACGIH Threshold Limit Values: Time Weighted Average</u>
Tert-butyl acetate	540-88-5	200 ppm / 950 mg/m ³ ACGIH, NIOSH REL, OSHA Z-1 & P0	
4,4' Diphenylmethane Diisocyanate- (MDI)	101-68-8	0.02 ppm, 0.2 mg/m ³ TWA	(TWA): 0.005 ppm

Any component which is listed in section 3 and is not listed in this section does not have a known ACGIH TLV, OSHA PEL or supplier recommended occupational exposure limit.

ENGINEERING CONTROLS: **Ventilation Measures:**

Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure.

General safety and hygiene measures:

Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL or TLV value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

RESPIRATORY PROTECTION:

When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place. For emergency or non-routine, high exposure situations, including confined space entry, use a NIOSH-certified full face piece pressure demand self-contained breathing apparatus (SCBA) or a full face piece pressure demand supplied-air respirator (SAR) with escape provisions.

EYE PROTECTION:

When directly handling liquid product, eye protection is required. Examples of eye protection include chemical safety goggles or chemical safety goggles in combination with a full face shield when there is a greater risk of splash.

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. Animal tests and other research indicate that skin contact with isocyanates can play a role in causing sensitization and respiratory reaction. Gloves should be worn, Nitrile rubber showed excellent resistance. Butyl rubber, neoprene and PVC are also effective.

ADDITIONAL PROTECTION:

Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product. Follow all label instructions.

Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Note:

Workers who have a history of adult asthma should be restricted from work with isocyanates. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Workers with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure can be permitted.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Yellow liquid	Initial boiling point and boiling range: (for tert butyl acetate)	98 °F (208 °C) @ 5 mmHg
Upper/lower flammability or explosive limits:	UEL: 6.88 %(V) LEL: 1.26 %(V)	Flash point: (tested)	> 45.9 °F (7.7°C)
Odor:	Musty, aromatic	Evaporation rate:	2.8 n-Butyl Acetate
Odor threshold: (for tert butyl acetate)	71 ppm	Flammability (solid, gas):	Not applicable
Vapor density:	Not applicable	Vapor pressure: (for tert butyl acetate)	41.5 mmHg (25°C)
pH: (for tert butyl acetate)	6 - 7 @ 20 °C (68 °F)	Partition coefficient: n-octanol/water:	Reacts with water
Relative density (specific gravity):	1.0 g/cm ³ estimated @ 25 °C (77 °F)	Auto-ignition temperature:	Not self-igniting
Freezing point:	No test data available	Decomposition temperature:	Not established
Solubility(ies):	Insoluble - Reacts with water to liberate CO ₂ gas	Viscosity:	150 mPa.s. (25°C)

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY:

Contact with moisture, other materials that react with isocyanates, or temperatures above 350 °F (177 °C), may cause polymerization. Materials to avoid: Water, Amines, Strong bases, Alcohols, Metal compounds, strong oxidizers. Avoid moisture. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.

Avoid unintended contact with polyols.

CHEMICAL STABILITY:

This product is chemically stable under recommended storage conditions.

OTHER:

Hazardous decomposition products :

Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition. By Fire and High Heat: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke., Isocyanate, Isocyanic Acid, other undetermined compounds

SECTION 11 TOXICOLOGICAL INFORMATION

Toxicity Data for this product is based on polymeric MDI (a mixture of monomers and higher molecular weight oligomers).

Acute Oral Toxicity

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

Acute Inhalation Toxicity

LC50: 0.49 mg/l, 490, 4 h (rat)

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: > 9400 mg/kg (rabbit, male/female) (OECD Test Guideline 402)

Skin Irritation

rabbit, Slightly irritating

Repeated Dose Toxicity

90 Days, inhalation: NOAEL: 1 mg/m³, (rat, Male/Female, 6 hrs/day 5 days/week)

Irritation to lungs and nasal cavity.

2 years, inhalation: NOAEL: 0.2, (rat, Male/Female, 6 hrs/day 5 days/week)

Irritation to lungs and nasal cavity.

Mutagenicity

Genetic Toxicity in Vitro:

Bacterial - gene mutation assay: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Carcinogenicity

rat, Male/Female, inhalation, 2 Years, 6 hrs/day 5 days/week,

Polymeric MDI has been classified as IARC Group 3 ("Not classifiable as to its carcinogenicity to humans") (1999) indicating there is inadequate evidence available to describe the carcinogenic potential. Epidemiological studies found no association between isocyanates and cancer. In chronic exposure studies in rodents, pMDI produced tumors only at the highest exposure level of 6 mg/m³. This exposure level is significantly above the TLV for MDI (0.051 mg/m³). Based on the weight of the evidence, a determination of not classified for carcinogenicity is justified.

Developmental Toxicity/Teratogenicity

rat, female, inhalation, gestation days 6-15, 6 hrs/day, NOAEL (teratogenicity): 12 mg/m³, NOAEL (maternal): 4 mg/m³

No Teratogenic effects observed at doses tested. Fetotoxicity seen only with maternal toxicity.

Toxicity Data for 2,4'-Diphenylmethane Diisocyanate (MDI)

Toxicity Note

See data above for polymeric MDI.

Toxicity Data for 4,4'-Diphenylmethane Diisocyanate (MDI)

Acute Oral Toxicity

LD50: > 7616 mg/kg (rat) (OECD Test Guideline 401)

Acute Inhalation Toxicity

LC50: 0.368 mg/l, 4 h (rat, male) (OECD Test Guideline 403)

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: > 9400 mg/kg (rabbit, male/female) (OECD Test Guideline 402)

Studies of a comparable product.

Skin Irritation

rabbit, Draize Test, Slightly irritating

Human, irritating

Eye Irritation

rabbit, Draize, Moderately irritating

Human, irritating

Sensitization

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

Respiratory sensitization: positive (guinea pig)

Repeated Dose Toxicity

90 Days, inhalation: NOAEL: 0.3 mg/m³, (rat, Male/Female, 18 hrs/day, 5 days/week)

Irritation to lungs and nasal cavity.

(Human) Irritation to lungs and nasal cavity.

Mutagenicity

Genetic Toxicity in Vitro:

Ames: (Salmonella typhimurium, Metabolic Activation: with/without)

Positive and negative results were reported. The use of certain solvents which rapidly hydrolyze diisocyanates is suspected of producing the positive mutagenicity results.

Genetic Toxicity in Vivo:

Material Name: BEYPRIM 20

BEYNON Sports Surfaces, Inc.

7/16/15 Page 7

Micronucleus Assay: (mouse) negative
Micronucleus test: negative (rat, male, Inhalative (exposure period: 3x1h/day over 3 weeks)) negative

Carcinogenicity

rat, Female, inhalation, 2 Years, 17 hrs/day, 5 days/week, negative

Other Relevant Toxicity Information

May cause irritation of respiratory tract.

Toxicity Data for Tert Butyl Acetate- CAS# 540-88-5:

Acute oral toxicity:

LD50 (rat, female): 4,100 mg/kg

Symptoms: ataxia, dyspnea

GLP: yes

Acute inhalation toxicity:

LC50 (rat, male and female): > 2.23 mg/l

Exposure time: 4 h

Test atmosphere: vapor

GLP: yes

Assessment: The component/mixture is toxic after short term inhalation.

Acute dermal toxicity:

LD50 (rabbit, male and female): > 2,000 mg/kg

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity data based on polymeric MDI (a mixture of monomers and higher molecular weight oligomers).

Biodegradation

0 %, Exposure time: 28 d, i.e. not degradable

Bioaccumulation

Oncorhynchus mykiss (rainbow trout), Exposure time: 112 d, < 1 BCF

Does not bioaccumulate.

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Danio rerio (zebra fish), 96 h)

LC0: > 3,000 mg/l (Oryzias latipes (Orange-red killifish), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: > 1,000 mg/l (Water flea (Daphnia magna), 24 h)

Toxicity to Aquatic Plants

NOEC: 1,640 mg/l, End Point: growth (Green algae (Scenedesmus subspicatus), 72 h)

Toxicity to Microorganisms

EC50: > 100 mg/l, (activated sludge, 3 h)

Ecological Data for 2,4'-Diphenylmethane Diisocyanate (MDI)

See data above for polymeric MDI.

Ecological Data for 4,4'-Diphenylmethane Diisocyanate (MDI)

Acute and Prolonged Toxicity to Fish

LC50: > 500 mg/l (Zebra fish (Brachydanio rerio), 24 h)

Acute Toxicity to Aquatic Invertebrates

EC50: > 500 mg/l (Water flea (Daphnia magna), 24 h)

Ecotoxicity

For Component Tert Butyl Acetate, CAS #540-88-5:

Toxicity to fish:

LC50 (Oncorhynchus mykiss (rainbow trout)): 240 mg/l

Exposure time: 96 h

Test Type: semi-static test

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): 350 mg/l

Exposure time: 48 h

Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae:

EbC50 (Pseudokirchneriella subcapitata): 6.1 mg/l

End point: Biomass

Exposure time: 72 h

Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Toxicity to bacteria:

Toxicity threshold (Pseudomonas putida): 78 mg/l

End point: Growth rate

Exposure time: 16 h

Test Type: Static

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

EMPTY CONTAINER PRECAUTIONS:

Empty containers retain product residue; observe all precautions for product. Do not heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

SECTION 14 TRANSPORT INFORMATION

TRANSPORTATION EMERGENCIES:

Contact should be made with **Beynon Sports at (410) 771-9473** or if for some reason there is no response, contact **CHEMTREC (800-424-9300)** when this product is unintentionally released from its container during its course of distribution, regardless of the amount released. Distribution includes transportation, storage incidental to transportation, loading and unloading. Such notification must be immediate and made by the person having knowledge of the release.

LAND Transport : USDOT

OCEAN Transport : IMO / IMDG CODE

AIR Transport: IATA

UN NUMBER: UN1123

UN PROPER SHIPPING NAME: Butyl Acetate Mixture (< 40%)

HAZARD CLASS(ES) / LABEL: Class 3, Flammable

PACKAGING GROUP: II

REPORTABLE QUANTITY (RQ): 4,4'-Diphenylmethane Diisocyanate - MDI - 5000 lbs (2270 kg)
Tert-Butyl Acetate 5000 lbs (2270 kg)

Additional DOT Transportation Information: (reference 49 CFR 172.101 Appendix A)

*When in individual containers of more than the Product RQ, this material also ships as **Regulated** as follows:*

UN NUMBER: UN3082

UN PROPER SHIPPING NAME: Environmentally Hazardous Substance, Liquid, N.O.S. (MDI)

HAZARD CLASS(ES) / LABEL: Class 9

PACKAGING GROUP: III

SECTION 15 REGULATORY INFORMATION

OSHA Hazcom Standard Rating: Hazardous

US. Toxic Substances Control Act: Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances Components
(40 CFR 302): 4,4'-Diphenylmethane Diisocyanate (MDI) Reportable quantity: 5000 lbs

SARA Section 311/312 Hazard Categories: Acute Health Hazard
Chronic Health Hazard
Reactive Hazard

SARA Title III Section 302 Extremely
Hazardous Substance none

SARA Title III Section 313 Toxic Chemicals Components(s):
(40 CFR 372.65) – Supplier Notification 4,4'-Diphenylmethane Diisocyanate (MDI) CAS# 101-68-8
Required:

State Right-To-Know Information: For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>CONCENTRATION (%)</u>
4,4'-Diphenylmethane Diisocyanate MDI *	101-68-8	< 10 %
2,4' Diphenylmethane Diisocyanate- (MDI)	5873-54-1	0% - < 10
Tert-butyl acetate	540-88-5	≤ 40 %

California Prop. 65:

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

SECTION 16 OTHER INFORMATION

Contact: Product Safety, BEYNON Sports Surfaces, Inc.

Telephone: 410-771-9473

MSDS Number:

Origination Date: 9/22/10

Revision Date: 7/16/15 (correction section 5)

Revision No.: 2

Information on this form is offered in good faith as typical values and not as a product specification. No warranty, either express or implied is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.