

## Safety Data Sheet

Material Name: OlyBond 500 BA Part A

Product #: 310476

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### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

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**Material Name:** OlyBond 500 BA Part A

**Product Use:** Two-component polyurethane system

**Restrictions on Use:** For industrial use only

**Manufacturer Information**

Carlisle SynTec Systems  
1285 Ritner Highway  
Carlisle, PA 17013  
USA  
Phone: +1-800-479-6832  
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

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### Section 2 - HAZARDS IDENTIFICATION

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**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Acute Toxicity, Inhalation – Category 4

Respiratory Sensitization – Category 1

Skin Sensitization – Category 1

Skin Irritation – Category 2

Eye Irritation – Category 2A

Specific Target Organ Toxicity, Single Exposure – Category 3

Specific Target Organ Toxicity, Repeated Exposure – Category 2

**GHS Label Elements**

**Symbol(s)**



**Signal Word**

Danger

**Hazard Statement**

May be harmful if inhaled, and may cause allergy or asthma symptoms, breathing difficulties, and/or respiratory irritation.

May cause an allergic skin reaction.

May cause skin irritation and serious eye irritation.

May cause damage to the respiratory system and/or skin through prolonged or repeated exposure.

**Precautionary Statements**

Do not breathe mist, spray, or vapors.

Use only outdoors or in a well-ventilated area.

In case of inadequate ventilation wear proper respiratory protection.

Wear protective gloves and eye/face protection.

Wash hands and forearms thoroughly after handling.

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Get medical advice/attention if you feel unwell.

**IF INHALED:** If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms or if you feel unwell, call a doctor or Poison Control Center.

**IF ON SKIN:** Wash with plenty of water. Take off contaminated clothing and wash before reuse. Contaminated work clothing must not be allowed out of the workplace. If skin irritation or rash occurs, get medical advice/attention.

**IF IN EYES:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Store locked up in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with applicable regulations. The acute toxicities of <10% of the product's ingredients are unknown.

### Emergency overview

Overexposure to components of this product by inhalation may cause respiratory irritation, asthma-like symptoms, and/or respiratory sensitization. The supplier has conducted an exposure assessment under representative working conditions, and has determined that exposure in excess of the OSHA Permissible Exposure Limit is not likely when the product is used in an outdoor environment in accordance with instructions and safe work practices.

Skin contact may cause irritation and/or allergy-like symptoms, and eye contact may cause severe irritation. Avoid skin and eye contact, using proper personal protective equipment as needed. See Section #7 for recommendations on proper handling and work practices, and Section #8 for recommendations on personal protective equipment.

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### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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CAS	Component Name	Percent
26447-40-5	Diphenylmethane Diisocyanate Mixed Isomers	<10
101-68-8	4,4'-Methylene Bisphenyl Isocyanate	38 ± 1
9016-87-9	Polymeric Isocyanates	<55

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### Section 4 - FIRST AID MEASURES

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#### Eyes

Hold eyes open and flush with lukewarm water for at least 15 minutes. Seek immediate medical assistance.

#### Skin

Remove contaminated clothing. Wash affected areas with soap and water for at least five minutes. If irritation persists or a rash occurs, seek medical attention. Launder or dry-clean clothing before reuse.

#### Ingestion

DO NOT induce vomiting. If the subject is conscious, wash mouth and give 2 or more cups of milk or water. Seek immediate medical assistance. Do not attempt to give anything by mouth to an unconscious or convulsive person.

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### Inhalation

If signs and symptoms of respiratory toxicity are observed, remove subject from area and seek immediate medical attention. Keep the subject warm and at rest. If necessary, administer oxygen or perform artificial respiration if necessary and qualified personnel are available to do so.

### Note to physician

Inhalation exposure can irritate the respiratory tract and induce respiratory sensitization. Treatment of acute irritation and bronchial constriction should be done according to symptoms. Eye contact can cause moderate to severe irritation. Skin contact can cause moderate irritation, and may elicit an allergic response among susceptible individuals. Treat eye and skin irritation or injury according to symptoms. Extended medical treatment may be necessary for individuals exhibiting respiratory sensitization and/or skin disorders.

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## Section 5 – FIRE FIGHTING MEASURES

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### Extinguishing Media

Water spray, carbon dioxide, dry chemical or chemical foam. DO NOT use water jet.

### Fire and Explosion Hazards

This product may ignite if exposed to sources of ignition at temperatures in excess of its flash point. If present in a fire or explosion, potential thermal decomposition byproducts include carbon monoxide, oxides of nitrogen, organic isocyanates, and hydrogen cyanide.

### Advice for firefighters

If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full-facepiece operated in pressure-demand or other positive pressure mode.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes, and mucous membranes. Wear appropriate personal protective equipment (see Section #8) during cleanup and decontamination. Restrict unauthorized personnel during cleanup and disposal operations.

### Environmental precautions

Prevent spills from entering sewers or contaminating soil.

### Methods and material for containment and cleaning up

Absorb spilled material with a sorbent such as sawdust or calcium silicate hydrate. When absorbed, transfer to an impervious container. Neutralize with solution of 8-10% sodium carbonate and 2% liquid detergent in water (10:1 ratio of solution to product). Do not seal container, as CO<sup>2</sup> will be released. Neutralize in a well-ventilated area for at least 48 hours before sealing containers for disposal.

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## Section 7 - HANDLING AND STORAGE

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### Precautions for safe handling

Containers should be kept tightly closed to prevent contact with moisture and other chemicals. Do not reuse empty containers for any purpose. When handling the product, avoid contact with eyes, skin, and

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clothing, using protective equipment as needed. Do not use this product around children, and secure it away from children.

### Work and hygiene practices

To prevent ingestion or contact following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing and protective equipment before entering eating/drinking areas.

### Storage precautions

Keep containers tightly sealed during storage. Store in a dry, well-ventilated area away from sources of ignition and incompatible materials (see Section #10). Recommended temperature range for storage is 55-85°F. (12.8-29.4°C.).

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### Engineering controls

Use appropriate ventilation (dilution or local exhaust) whenever natural ventilation is restricted or inadequate to maintain concentrations of all components within their applicable standards.

### Eye/face protection

Wear eye protection adequate to prevent eye contact with the product. Plastic-frame spectacles with side shields, chemical goggles, or a face shield are recommended. Do not wear contact lenses when working with this product.

### Skin protection

Wear protective gloves and clothing to prevent skin irritation or injury from contact with the product. Glove materials known to be effective against permeation by isocyanates include butyl rubber, nitrile rubber, and polychloroprene.

### Respiratory protection

If an exposure level to a component exceeds an applicable standard, use a NIOSH-approved respirator of a class and configuration effective for protection from the component(s) generated. Where exposures exceed the OSHA Permissible Exposure Limit (PEL), an airline respirator or self-contained breathing apparatus (SCBA) is recommended. Consult OSHA regulations (29CFR1910.134) and/or American National Standard Z88.2 (ANSI, New York, NY 10036, USA) for guidance.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Dark brown liquid	<b>Physical State</b>	Liquid
<b>Odor</b>	Aromatic	<b>Color</b>	Dark brown
<b>Odor Threshold</b>	Not determined	<b>pH</b>	Not applicable
<b>Melting Point</b>	Not determined	<b>Boiling Point</b>	≥200°F/93°C
<b>Freezing point</b>	Not determined	<b>Evaporation Rate</b>	Not determined
<b>Boiling Point Range</b>	Not determined	<b>Flammability (solid, gas)</b>	Flammable
<b>Autoignition</b>	Not determined	<b>Flash Point</b>	approx. 484°F/220°C

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<b>Lower Explosive Limit</b>	Not determined	<b>Decomposition</b>	Not determined
<b>Upper Explosive Limit</b>	Not determined	<b>Vapor Pressure</b>	Not determined
<b>Vapor Density (air=1)</b>	Not determined	<b>Specific Gravity (water=1)</b>	Not determined
<b>Water Solubility</b>	Reactive	<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Viscosity</b>	150-350 cps	<b>Solubility (Other)</b>	Not determined
<b>Density</b>	approx. 1.22		

### Section 10 - STABILITY AND REACTIVITY

#### Stability

Stable

#### Reactivity

May react with water and incompatible materials.

#### Hazardous Polymerization

May occur at temperatures >392°F/200°C

#### Risk of Dangerous Reactions

None reasonably foreseeable.

#### Incompatible Materials

Water, alcohols, acids, alkalis, and amines.

#### Potential decomposition byproducts

Carbon monoxide, carbon dioxide, nitrogen oxides, isocyanates, and hydrogen cyanide.

### Section 11 - TOXICOLOGICAL INFORMATION

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Diphenylmethane Diisocyanate Mixed Isomers (26447-40-5)

Oral LD50 Rat >5,000 mg/kg

Inhalation LC50 Rat 2,240 mg/m<sup>3</sup> 1 hr

4,4'-Methylene Bisphenyl Isocyanate (101-68-8)

Oral LD50 Rat >5,000 mg/kg

Inhalation LC50 Rat 2,240 mg/m<sup>3</sup> 1 hr

#### Primary route(s) of entry

Inhalation; ingestion

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**Eye**

This product may cause moderate to severe eye irritation.

**Skin**

This product may cause mild to moderate skin irritation and has the potential to cause skin sensitization among susceptible individuals.

**Ingestion**

The product is nontoxic by ingestion, but ingestion may cause nausea, vomiting, and/or gastrointestinal irritation.

**Inhalation**

Inhalation of toxicologically-significant quantities of ingredients is unlikely when the product is used in a well-ventilated area and in accordance with instructions.

**Symptoms related to overexposure**

Inhalation overexposure to isocyanates may cause respiratory irritation, breathing difficulties, and asthma-like symptoms.

**Delayed effects from long-term overexposure**

Long-term inhalation overexposure to this product may result in respiratory sensitization, which may be irreversible.

**Carcinogenicity**

A single inhalation study exposing rats to aerosolized polymeric 4,4'- Methylene Bisphenyl Isocyanate identified a single malignant pulmonary tumor among 60 animals exposed at the highest exposure level. Observations of pulmonary fibrosis and other pathological anomalies in the test animals precluded definitive determination as to the cause(s) of the tumor. Epidemiological studies of humans occupationally exposed to the isocyanates in this product have found no strong association or consistent pattern with respect to carcinogenicity.

**Germ cell mutagenicity**

No ingredients have been determined to be germ cell mutagens.

**Reproductive toxicity**

No ingredients have been determined to be damaging to fertility or to the unborn child.

**Acute toxicity**

No known acute effects.

**Section 12 - ECOLOGICAL INFORMATION**

**Aquatic toxicity**

<b>Diphenylmethane Diisocyanate, Isomers and Homologues</b>	26447-40-5
Fish:	LC50 >1,000 mg/l. for 96 h. (zebra fish)
Invertebrate:	EC50 >1,000 mg/l. for 24 h. (daphnia)
Algae:	EC50 >1,640 mg/l. for 72 h.
Microorganisms:	EC50 >100 mg/l. for 3 h. (bacteria)
Terrestrial Organisms:	NOEC=1,000 mg/kg for 14 d. (worms)



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### **Mobility in soil**

No data available.

### **Ozone depletion potential**

This product neither contains nor is manufactured with any ingredients known to deplete the ozone layer.

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## **Section 13 - DISPOSAL CONSIDERATIONS**

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### **Waste disposal of substance**

Do not discharge waste product into sanitary or storm sewers or allow it to contaminate soil. Empty containers should be decontaminated prior to disposal. Consult applicable Federal, State/Provincial, and local regulations.

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## **Section 14 - TRANSPORT INFORMATION**

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### **US DOT information**

Not classified as a dangerous good under transport regulations

### **Sea transport IMDG**

Not classified as a dangerous good under transport regulations

### **Air transportation IATA/ICAO**

Not classified as a dangerous good under transport regulations

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## **Section 15 - REGULATORY INFORMATION**

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### **TSCA information**

All ingredients of this product are listed in the TSCA Registry.

### **SARA hazard classes**

Acute Health Hazard, Chronic Health Hazard, Reactivity Hazard

### **EPCRA Section 313 notification**

This product contains these ingredients in concentrations  $\geq 1\%$  (for carcinogens  $\geq 0.1\%$ ) regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372:

1. 4,4'-Methylene Bisphenyl Isocyanate (CASRN 101-68-8)
2. Polymeric Isocyanates (CASRN 9016-87-9)

### **CERCLA information**

Under requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 4,4'-Methylene Bisphenyl Isocyanate (CASRN 101-68-8) has a Reportable Quantity of 5,000 lbs. Any spill or release above this RQ must be reported to the National Response Center (800-424-8802).

### **Canadian regulatory information**

This product has been classified in accordance with Canada's Hazardous Products Regulations (SOR/DORS/2015-15).

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### Section 16 - OTHER INFORMATION

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#### HMIS Rating

Health: 2 Fire: 1 Physical Hazard: 1

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

#### NFPA Ratings

Health: 2 Fire: 2 Reactivity: 1

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

#### Summary of Changes

New SDS: April 14, 2015

#### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

#### Other Information

##### Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.