



SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: OlyBond 500 Canister Part 1
TRADE NAME: N/A
**CHEMICAL NAME /
SYNONYM:** Polymeric MDI
CHEMICAL FAMILY: N/A
MANUFACTURER: GAF
ADDRESS: 1 Campus Drive, Parsippany, NJ 07054
**24-HOUR EMERGENCY
PHONE (CHEMTREC):** 800 – 424 – 9300
INFORMATION ONLY: 800 – 766 – 3411
PREPARED BY: Corporate EHS
APPROVED BY: Corporate EHS

SECTION 2: HAZARD IDENTIFICATION

NFPA and HMIS RATINGS:

	NFPA Hazard Rating		HMIS Hazard Rating
	2		2
	0		0
	1		1
Special Hazards	-	Personal Protection	X

GHS LABEL ELEMENTS:

GHS CLASSIFICATION: Eye Irritant - Category 2A
Skin Irritant - Category 2
Skin Sensitizer - Category 1
Target Organ (SE) - Category 3
Target Organ (RE) - Category 2
Acute Toxicity Inhalation - Category 4
Respiratory Sensitization - Category 1
Gases Under Pressure – Compressed Gas

GHS PICTOGRAMS:

SIGNAL WORD: Danger

HAZARD

STATEMENTS: 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 pr repeated exposure.
Contains gas under pressure; may explode if heated.

ADDITIONAL HAZARD IDENTIFICATION INFORMATION:

PRIMARY ROUTE OF EXPOSURE: Inhalation, Ingestion, Skin contact.

SIGNS & SYMPTOMS OF EXPOSURE

EYES: 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.

ACUTE HEALTH HAZARDS: Individuals can develop skin sensitization. Eye contact will cause serious eye irritation.

CHRONIC HEALTH HAZARDS: As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Sensitization may be either temporary or permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering.

CARCINOGENICITY: No ingredients are classified as potential or confirmed human carcinogens by OSHA, NTP, or IARC.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	%	OCCUPATIONAL EXPOSURE LIMITS		
			OSHA	ACGIH	OTHER
4, 4'-Diphenylmethane Diisocyanate	101-68-8	25-50	0.02 ppm ceiling	0.005 ppm	NE
Diphenylmethane Diisocyanate, Isomers and Homologues	9016-87-9	>50	NE	NE	NE
1,1,1,2-Tetrafluoroethane	811-97-2	10-25	NE	NE	NE

NE = Not Established

SECTION 4: FIRST AID MEASURES**FIRST AID PROCEDURES**

- EYES:** After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get immediate medical attention.
- SKIN:** Remove contaminated clothing and shoes. Immediately wash exposed area with soap and water. Get medical attention immediately.
- INHALATION:** Move individual away from exposure and into fresh air. If not breathing, give artificial respiration. Get immediate medical attention.
- INGESTION:** DO NOT induce vomiting. If swallowed, immediately give 2 glasses of water. Contact a physician. Never give anything by mouth to an unconscious person. Get immediate medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

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.

SECTION 5: FIRE FIGHTING PROCEDURES

- SUITABLE EXTINGUISHING MEDIA:** Water, Carbon dioxide, foam or Dry chemical. DO NOT use water jet.

HAZARDOUS COMBUSTION PRODUCTS:	Carbon monoxide, oxides of nitrogen, isocyanates and hydrogen cyanide.
RECOMMENDED FIRE FIGHTING PROCEDURES:	Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).
UNUSUAL FIRE & EXPLOSION HAZARDS:	The container may burst if exposed to elevated temperatures, spilling the contents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:	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 ₂ 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

HANDLING AND STORAGE:	Avoid extreme temperatures. 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 clothing, using protective equipment as needed. Do not use this product around children, and secure it away from children.
OTHER PRECAUTIONS:	None.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS / VENTILATION:	Use appropriate ventilation (dilution or local exhaust) whenever natural ventilation is restricted or inadequate to maintain concentrations of all components within their applicable standards.
RESPIRATORY PROTECTION:	If workplace exposure limit(s) of product or any component is exceeded, a NIOSH-approved respirator is advised in absence of proper environmental control. Engineering or administrative controls should be implemented to reduce exposure.
EYE 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.

OTHER PROTECTIVE EQUIPMENT: N/A

WORK HYGIENIC PRACTICES: N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR:	Cream colored liquid with an aromatic odor.		
FLASH POINT:	Not determined	LOWER EXPLOSIVE LIMIT:	Not determined
METHOD USED:	Not determined	UPPER EXPLOSIVE LIMIT:	Not determined
EVAPORATION RATE:	Not determined	BOILING POINT:	Not determined
pH (undiluted product):	Not determined	MELTING POINT:	Not determined
SOLUBILITY IN WATER:	Reacts with Water	SPECIFIC GRAVITY:	1.03 (Water = 1)
VAPOR DENSITY:	Not determined	PERCENT VOLATILE:	Not determined
VAPOR PRESSURE:	5716 hPa	MOLECULAR WEIGHT:	Not determined
VOC WITH WATER (LBS/GAL):	Not determined	WITHOUT WATER (LBS/GAL):	Not determined

SECTION 10: STABILITY AND REACTIVITY

THERMAL STABILITY: **STABLE** **UNSTABLE**

CONDITIONS TO AVOID (STABILITY): Avoid moisture, acids, alcohols, alkalies, and amines.

INCOMPATIBILITY (MATERIAL TO AVOID): Reacts with water, alcohol, acids, alkalis and amines.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon monoxide, Hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

HAZARDOUS POLYMERIZATION: May occur at temperatures above 392 deg. F.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: 4,4-Methylenediphenyl Diisocyanate

LD 50/Rat: > 5000 mg/kg
LC 50/Rat: 2.24 mg/l for 1 hour

1,1,1,2-Tetrafluoroethane

LC 50/Rat: >2300 mg/l

SECTION 12: ECOLOGICAL INFORMATION

4,4'-Methylenediphenyl Diisocyanate

Aquatic Toxicity to Fish: LC50 >1,000 mg/l. for 96 h. (zebra fish)
Aquatic Toxicity to Invertebrates: EC50 >1,000 mg/l. for 24 h. (daphnia)
Aquatic Toxicity to Plants: EC50 >1,640 mg/l. for 72 h. (algae)
Aquatic Toxicity to Microorganisms: EC50 >100 mg/l. for 3 h. (bacteria)
Toxicity to Terrestrial Organisms: ECNo = 1,000 mg/kg for 14 d. (worms)
No data available for Persistence and Degradability, Bioaccumulation Potential, or Mobility in Soil.

Diphenylmethane Diisocyanate, Isomers and homologues

No data available for Aquatic Toxicity to Fish, Invertebrates, Plants, or Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, or Mobility in Soil.

1,1,1,2-Tetrafluoroethane

Aquatic Toxicity to Fish: LC50 = 450 mg/l. for 96 h. (rainbow trout)
Aquatic Toxicity to Invertebrates: EC50 = 950 mg/l. for 48 h. (daphnia)
Aquatic Toxicity to Plants: EC50 = 118 mg/l. for 72 h. (algae)
No data available for Aquatic Toxicity to Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, or Mobility in Soil.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal.

SECTION 14: TRANSPORTATION INFORMATION**U.S. DOT / IATA / IMDG**

PROPER SHIPPING NAME: Chemical Under Pressure n.o.s. (contains fluorinated hydrocarbon, nitrogen)

HAZARD CLASS: 2.2

ID NUMBER: UN3500

PACKING GROUP: N/A

SECTION 15: REGULATORY INFORMATION**U.S. FEDERAL REGULATIONS**

TSCA: This product and its components are listed on the TSCA 8(b) inventory.

CERCLA: 4, 4'-Diphenylmethane Diisocyanate (101-68-8)

SARA

311 / 312 HAZARD CATEGORIES: Acute Health Hazard; Chronic Health Hazard, Reactivity

313 REPORTABLE INGREDIENTS: 4, 4'-Diphenylmethane Diisocyanate (101-68-8) RQ 5000 lbs

CALIFORNIA PROPOSITION 65: Not applicable.

Other state regulations may apply. Check individual state requirements. The following components appear on one or more of the following state hazardous substances lists:

Chemical Name	CAS #	CA	MA	MN	NJ	PA	RI
4, 4'-Diphenylmethane Diisocyanate	101-68-8	Yes	No	No	Yes	No	Yes
Polymeric MDI	9016-87-9	No	No	No	No	No	No

SECTION 16: OTHER INFORMATION

ADDITIONAL COMMENTS: N/A

DATE OF PREVIOUS SDS: N/A

CHANGES SINCE PREVIOUS SDS: N/A – New Product.

This information relates to the specific material designated and may not be valid for such material used on combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee, expressed or implied, is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license of valid patents.