



BioBased® 502 B - Component Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	BioBased® 502 B - Component
Synonyms/Generic Names:	Polyol blend with Amine Catalyst
Product Use:	Polyurethane spray foam component
Manufacturer:	BioBased® Insulation a Division of BioBased Technologies® LLC 1200 Stewart Place, Springdale, AR 72764. (479) 966-4600 (479) 966-4601 (fax) Website: www.biobased.net
In Case Of Emergency Call:	CHEMTREC (800) 424-9300 (24 Hours/Day, 7 Days/Week, US and Canada) or call (collect) at (703) 527-3887 (USA)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: An opaque amber liquid with a slight ammonia-like odor. Liquid and mists can irritate the skin and respiratory tract and may irritate or burn the eyes. Liquid and vapor is harmful via skin contact, inhalation or ingestion. Liquid or vapors may cause allergic skin or respiratory reactions to individuals sensitive to amines or isocyanates.

OSHA Hazard Communication Standard:	This product is considered hazardous.
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Potential Health Hazards:

Skin:	Can irritate the skin. Can be absorbed through the skin and large or repeated exposures may result in toxic effects similar to ingestions. Can cause allergic skin reactions in individuals sensitized to amines and isocyanates. Skin exposure may trigger an allergic respiratory response.
Eyes:	Can cause irritation and/or burns and untreated exposures may result in blindness.
Inhalation:	Vapors and mists may cause irritation to respiratory tract with possible burns to throat and airways. Vapors can irritate or burn the eyes. Can cause severe allergic reactions in individuals sensitized to amines and isocyanates. Inhalation of large quantities may result in symptoms similar to ingestion.
Ingestion:	Harmful if swallowed. Can irritate or burn the digestive tract. If vomited, may enter lungs, causing lung damage. Although of low toxicity, large exposures may result in diarrhea, blurred vision, cramps, tremors, muscle twitching, sweating or headache.
Delayed Effects:	Repeated exposure in the absence of recommended protective clothing and without following recommended safe handling practices may cause individuals to become sensitized to amines and isocyanates.

Ingredients found on one of the three OSHA designated carcinogen lists are listed below.

Ingredient Name	NTP Status	IARC Status	OSHA List
No ingredients listed in this section.	----	----	----

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Weight %
Hydroxylated Soybean Oil	693217-63-9	< 40
Bis (2-dimethylaminoethyl)ether	3033-62-3	< 2
Organic phosphate	Trade Secret	< 25
Additive 2 (diamine compound)	Trade Secret	< 10
Blowing agent and non-hazardous ingredients	Trade Secret	< 60

Trace impurities and additional material names not listed above may appear in Section 15 of this MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

4. FIRST AID MEASURES

Skin:	Immediately rinse under running water while removing contaminated clothing. Continue washing for up to 15 minutes. Get medical assistance for irritation. Launder contaminated clothing before reuse and discard any contaminated leather apparel (shoes, watch band, etc.)
Eyes:	Immediately flush eyes with running water while lifting the eyelids and continue for up to 15 minutes. Lift eyelids to wash out any liquid. Get immediate medical attention.
Inhalation:	Move the exposed person to fresh air. If person has difficulty breathing or is in distress, immediately contact a doctor, poison control center or paramedic. Provide oxygen if a trained responder is available. For irritation, burns or any systemic (internal) symptom, get immediate medical assistance.
Ingestion:	Immediately consult a physician or poison control center. Do not induce vomiting. If conscious and not nauseous, patient may drink one or two glasses of water or milk.
Advice to Physician:	Product is corrosive and contains traces of respiratory and dermal sensitizers (amines and isocyanates). For sever cases of respiratory sensitization, anaphylactic shock is possible. For other respiratory exposures, monitor patient for any delayed respiratory involvement (e.g., pulmonary edema). Product contains a weak cholinesterase inhibitor but is of moderate to low toxicity. No specific antidote is recommended. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point (and method)	Vapors are self-extinguishing (Pensky Martin Closed Cup)
Autoignition Temperature:	Not determined
Upper Flame Limit (volume % in air):	Not determined
Lower Flame Limit (volume % in air):	Not determined
Flame Propagation Rate (solids):	Not applicable
OSHA Flammability Class: (storage)	Not applicable

Extinguishing Media:	Water fog, high expansion foam, dry chemical, carbon dioxide or water spray. Avoid solid stream of water if liquid is heated to ignition. It may spread burning liquid.
Unusual Fire And Explosion Hazards:	Sealed containers can rupture violently when exposed to fire.
Special Fire Fighting Precautions/Instructions:	Wear self contained breathing apparatus. Avoid skin or eye contact with liquid and vapors.

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6. ACCIDENTAL RELEASE MEASURES

In Case Of Spill or Other Release:	(See Section 8 for recommended personal protective equipment.) Avoid contact with skin and eyes. Do not breathe product vapors. Small spills: Soak up with absorbent material such as oil-dry or vermiculite. Shovel into containers but DO NOT seal them. Arrange for disposal. Large spills: Ventilate area during cleanup. Dike spill and pump into suitable containers for disposal. Do not allow to enter natural waterways or sewers.
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Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

Normal Handling:	Avoid contact with skin, eyes and clothing. Do not breathe product vapors or mists. (See Section 8 for recommended personal protective equipment.)
Storage Recommendations:	Keep containers closed during storage. Store away from moisture, isocyanates and oxidizing agents. (See Section 10 for hazards associated with contamination.) Do not contaminate with any material. Contamination with isocyanates or BioBased [®] A - Component may cause a reaction generating pressure that could cause a closed container to explode. Product life is approximately 6 months when stored between 60 & 90 °F (16 & 32 °C). Do not allow product to become contaminated with other materials, especially with BioBased [®] A - Component or any isocyanate.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:	Provide local exhaust ventilation sufficient to keep vapors below safe exposure limits.
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Personal Protective Equipment

Skin Protection:	Wear impervious gloves and clothing are recommended. Suitable materials of construction for gloves include butyl rubber, nitrile rubber, polyvinyl alcohol, PE/EVAL or PV/EVCH (4H [™] and Silver Shield [™] brand gloves). Tychem [®] BR, LV or TK protective clothing may be appropriate. Butyl rubber, nitrile rubber neoprene and Saranex [®] coated Tyvek [®] may also be considered for use. Use of rubber footwear or overshoes is recommended.
Protection:	Wear safety glasses with eye-shields or chemical safety goggles. Avoid the use of contact lenses for liquid transfer and handling operation.
Respiratory Protection:	Not required for properly ventilated areas. For areas containing product mists, for areas where the exposure limits may be exceeded and for spill cleanup, use an air supplied respirator.
Additional Recommendations:	A source of running water such as a safety shower and/or eyewash station is recommended in the work area.

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Exposure Guidelines

Ingredient	ACGIH TLV	OSHA PEL	Other Limit
Bis(2-dimethylaminoethyl) ether	0.05 ppm TLV (skin) 0.15 ppm STEL	None established	None established

¹ = Limit established by BioBased Insulation[®].

² = Workplace Environmental Exposure Level (AIHA).

³ = Biological Exposure Index (ACGIH).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Opaque brown liquid		
Physical State:	Liquid		
Odor	Slight amine odor		
Specific Gravity (water = 1.0):	1.09		
Solubility In Water (weight %):	Not determined		
pH:	9 - 10		
Boiling Point:	217 °F (103 °C)		
Freezing Point:	No		
Viscosity	1700 - 2200 cps @ 77 °F (25 °C)		
Vapor Pressure:	740 mm Hg @ 77 °F (25 °C)		
Vapor Density (air = 1.0):	> 1		
Evaporation Rate:	Not determined	Compared To:	
% Volatiles:	Not determined		
Flash Point: (and method)	Vapors are self-extinguishing (Pensky Martin Closed Cup)		
Autoignition Temperature:	Not determined		
Upper Flame Limit (volume % in air):	Not determined		
Lower Flame Limit (volume % in air):	Not determined		

10. STABILITY AND REACTIVITY

Normally Stable:	Stable under normal storage conditions.
Incompatibilities:	Do not contaminate with any material. Contamination with isocyanates or BioBased [®] A - Component may cause a reaction generating pressure that could cause a closed container to explode. Product may also react violently with oxidizing agents and acids.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, nitrogen oxides and organic residues
Hazardous Polymerization:	Can occur as a result of contact with polyisocyanates. Uncontrolled mixture with BioBased [®] A - Component may result in a violent reaction. – Always follow product use instructions.

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11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	This product has not been tested as a mixture. It contains a weak cholinesterase inhibitor but all ingredients have an oral LD ₅₀ above 500mg/kg. Not classified as “toxic” by skin absorption but toxic effects can be developed from large untreated exposures.
Eye Irritation:	Considered corrosive to the eyes based on ingredient information.
Skin Irritation:	Considered corrosive. Skin contact can trigger respiratory sensitization responses.
Respiratory Contact	Considered an irritant and corrosive. May cause severe respiratory allergic reaction in individuals sensitized to amines and isocyanates.
Chronic data:	Permanent sensitization of the skin and respiratory tract can occur from repeated exposures. (Allergic reaction whenever exposure occurs.)

12. ECOLOGICAL INFORMATION

No data available on product. Avoid contact with natural waterways and soils.

13. DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded?	No
If yes, the RCRA ID number is:	-----

The information offered in Section 13 is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

Other Disposal Considerations:	Liquid product should be incinerated in a licensed facility in accordance with local, state and federal regulations. Do not discharge to waterways or sewer systems or dispose of on the ground. Under no circumstances should a torch, welder, plasma cutter or similar tool capable of producing an arc be used on an empty container regardless of the whether the container has been rinsed or cleaned. Containers should be punctured with a non-sparking tool and disposed of in a licensed facility or landfill.
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14. TRANSPORT INFORMATION

Shipping Name:	Not regulated
UN ID Number	Not applicable
Packing Group	Not applicable
US DOT Hazard Class:	Not regulated
Canadian TDG Hazard Class:	Not regulated
IMDG Hazard Class (sea):	Not regulated
IATA Hazard Class (air):	Not regulated

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15. REGULATORY INFORMATION

Toxic Substances Control Act (TSCA)

TSCA Inventory Status:	Listed on TSCA Chemical Inventory
Other TSCA Issues:	None

SARA Title III/CERCLA

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

Ingredient	SARA/CERCLA RQ (lb)	SARA EHS TPQ (lb)
No ingredients listed in this section.		

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SARA 311 Hazard Class: Immediate, Delayed

SARA 313 Toxic Chemicals:

The following ingredients are SARA 313 "Toxic Chemicals" and may be subject to annual reporting requirements. CAS numbers and weight percents are found in Section 2.

Ingredient	Comment
No ingredients listed in this section.	

State Right-To-Know

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

Ingredient	Weight %	Comment
No ingredient listed in this section.		

Additional Regulatory Information:	None
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Non-US Regulatory Information.

WHMIS Classification: (Canada)	D2A This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
Other Chemical Inventory Status:	Some ingredients not listed on the Canadian DSL.

16. OTHER INFORMATION

Current Issue Date:	October 20, 2010
Previous Issue Date:	January 25, 2010
Changes from previous Issue Date:	Updated Company logo and name
Other Product Information:	None

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Hazard Ratings

HMIS (III)	NFPA
Health – 3	Health – 3
Flammability – 0	Flammability – 0
Physical Hazard – 1	Instability – 1

The technical data contained herein is true and accurate to the best of BioBased® Insulation a Division of BioBased Technologies® LLC's knowledge on the date of publication. The technical data is subject to change, however, and the user should contact BioBased® Insulation a Division of BioBased Technologies® LLC to verify that the technical data is current. In addition, the technical data is provided for your guidance only. Because many factors can affect the processing or application of the product and/or its use, it is the user's responsibility to test the product to determine its suitability for the user's intended use. The sale and use of this product is subject to all of the terms and conditions set forth in the BioBased® Insulation a Division of BioBased Technologies® LLC sales order, including the LIMITED WARRANTY, DISCLAIMER OF WARRANTY AND RELEASE, and EXCLUSION OF CONSEQUENTIAL AND OTHER DAMAGES. This technical data does not create an express warranty of any kind. The only warranty applicable to this product is the written, limited express warranty contained in the BioBased® Insulation a Division of BioBased Technologies® LLC sales order, which is extended to the purchaser only.