



Seal-Tite Part B

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 10/06/2014 Date of issue: 11/17/2015

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Seal-Tite Part B

Product Code: 2143-B

Intended Use of the Product

Sealant. For professional use only.

Name, Address, and Telephone of the Responsible Party

Manufacturer

The Garland Company, Inc.
3800 East 91st Street
Cleveland, Ohio 44105-2197
T-800-762-8225
F-216-641-0633

www.garlandco.com

Supplier

The Garland Company, Inc.
209 Carrier Drive
Toronto, Ontario M9W 5Y8
T-416-747-7995 800-387-5991
F-416-747-1980

Emergency Telephone Number

Emergency number : 1-800-762-8225 24 hours

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Skin Irrit. 2	H315
Skin Sens. 1	H317
Eye Irrit. 2A	H319
Acute Tox. 4	H332
Resp. Sens. 1	H334
Resp. Irrit. 3	H335
Carc. 2	H351
STOT RE 2	H373

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Warning

Hazard Statements (GHS-US)

: H315 – Causes skin irritation.
 H317 – May cause an allergic skin reaction.
 H319 – Causes serious eye irritation.
 H332 – Harmful if inhaled.
 H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 – May cause respiratory irritation.
 H351 – Suspected of causing cancer.
 H373 – May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements (GHS-US)

: P260 – Do not breathe dust/fume/gas/mist/vapors/spray.
 P280 – Wear protective gloves/protective clothing/eye protection/ face protection.
 P285 – In case of inadequate ventilation wear respiratory protection.
 P302+P352– IF ON SKIN: Wash with plenty of soap and water.

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P304+P340 – IF Inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309+P311 – IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

Label Elements

Not classified as hazardous.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Diphenylmethane Diisocyanate (MDI)	(CAS No) 9016-87-9	25-40	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2A, H319 Acute Tox. 1, H330 Resp. Sens. 1, H334 STOT SE 3, H335
4,4' Methylene-diphenyl Isoctanate (MDI)	(CAS No) 101-68-8	10-30	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2A, H319 Acute Tox. 4, H332 Resp. Sens. 1, H334 STOT SE 3, H335 Carc. 2, H351 STOT RE 2, H373

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth-to-mouth, use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin Contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. 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 cleaner or corn oil may be more effective than soap and water. 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.

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. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most Important Symptoms and Effects Both Acute and Delayed

General: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

Indication of Immediate Medical Attention and Special Treatment Needed

General: Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If you are sensitized to diisocyanates, consult your

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physician regarding working with other respiratory irritants or sensitizers. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

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

Special Hazards Arising From the Substance or Mixture

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen cyanide. Carbon monoxide. Carbon dioxide.

Fire and Explosion Hazards: Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

Advice for Firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out. Contain fire water run-off if possible. Fire water runoff, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" section of this SDS.

Protection During Firefighting: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire-fighting operations. If contact is likely, change to full chemical resistant fire-fighting clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of low areas. Keep upwind of spill. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. If available, use foam to smother or suppress. Refer to Section 7, Handling, for additional precautionary measures. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal protection.

Environmental Precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and Materials for Containment and Cleaning Up

For Containment/Clean Up: Contain spilled material if possible. Absorb with materials such as: Dirt. Vermiculite. Sand. Do NOT use absorbent materials such as: Cement powder (Note: may generate heat). Collect in suitable and properly labeled open containers. Do not place in sealed containers. Suitable containers include: Metal drums. Plastic drums. Polylined fiber pacs. Wash the spill site with large quantities of water. Attempt to neutralize by adding suitable decontaminated solution: Formulation 1: sodium carbonate 5-10%; liquid detergent 0.2-2%; water to make up to 100%, OR Formulation 2: concentrated ammonia solution 3-8%; liquid detergent 0.2-2%; water to make up to 100%. If ammonia is used, use good ventilation to prevent vapor exposure. Contact Chemtrec for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

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General Handling: Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling. Keep container tightly closed. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for Safe Storage

General: Store in a dry place. Protect from atmospheric moisture. Do not store product contaminated with water to prevent potential hazard reaction. See Section 10 for more specific information.

Shelf Life: 6 Months at a storage temperature of 56 - 77°F (15 - 25°C).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

4,4' Methylenediphenyl Isocyanate (9016-87-9)		
USA ACGIH	ACGIH TWA (mg/m3)	0.005 ppm
USA NOISH	NIOSH REL (ceiling) (mg/m3)	0.05 mg/m3
Ireland OELV	TWA as NCO	0.02 mg/m ₃ SEN
Ireland OELV	STEL as NCO	0.07 mg/m ₃ SEN
UK WEL	TWA as NCO	0.02 mg/m ₃ SEN
UK WEL	STEL as NCO	0.07 mg/m ₃ SEN
Diphenylmethane Diisocyanate (101-68-8)		
USA ACGIH	ACGIH TWA (mg/m3)	0.005 ppm
Ireland OELV	TWA as NCO	0.02 mg/m ₃ SEN
Ireland OELV	STEL as NCO	0.07 mg/m ₃ SEN
UK WEL	TWA as NCO	0.02 mg/m ₃ SEN
UK WEL	STEL as NCO	0.07 mg/m ₃ SEN

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Appropriate Engineering Controls: Use only with adequate ventilation. 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. Local exhaust ventilation may be necessary for some operations.

Personal Protective Equipment: Gloves. Protective goggles.



Hand Protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Polyethylene. Chlorinated polyethylene. Ethyl vinyl alcohol laminate. Examples of acceptable glove barrier materials include: Viton. Neoprene. Polyvinyl chloride. Nitrile/butadiene rubber. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements, potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Eye Protection: Wear safety glasses or goggles to avoid eye contact.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Environmental Exposure Controls: No specific controls are needed.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter.

For situations where the atmospheric levels may exceed the level for which an air-purifying is effective, use a positive-pressure air-supplying respirator (air-line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate prefilter, type AP2.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	:	Black paste
Color	:	Black
Odor	:	Mild mint scent
Odor Threshold	:	Not applicable
pH	:	Not applicable
Melting Point	:	No test data available
Freezing Point	:	No test data available
Boiling Point (760 mm Hg)	:	Not applicable
Flash Point – Closed Cup	:	No test data available
Evaporation Rate (Butyl Acetate = 1)	:	No test data available
Flammability (solid, gas)	:	Not applicable
Flammability Limits in Air	:	Lower: No test data available; Upper: No test data available
Vapor Pressure	:	< 1
Vapor Density (Air = 1)	:	>1
Specific Gravity (H2O = 1)	:	Not applicable

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Solubility in Water (by wt)	:	Insoluble
Density	:	9.01 lbs/gal.
Explosive Properties	:	Not explosive
% Volatile	:	1.46%
VOC	:	15.8 g/L

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known when used under normal conditions.

Chemical Stability: Stable under recommended storage conditions. See Storage, Section 7.

Possibility of Hazardous Reactions: Can occur. Elevated temperatures can cause hazardous polymerization. Polymerization can be catalyzed by: Strong bases. Water.

Conditions to Avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. 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. Metal compounds. Moist air. Strong oxidizers. Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate.

Incompatible Materials: Metal compounds. Moist air. Strong oxidizers. Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat. Avoid contact with metals such as: Aluminum. Zinc. Brass. Tin. Copper. Galvanized metals. Avoid contact with absorbent materials such as: Moist organic absorbents. Avoid unintended contact with polyols. The reaction of polyols and isocyanates generate heat.

Hazardous Decomposition Products: Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition. Thermal decomposition may produce toxic fumes of CO and/or CO₂.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects – Product

Acute Toxicity: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Typical for this family of materials.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Prolonged contact may cause slight skin irritation with local redness. May stain skin.

Serious Eye Damage/Irritation: May cause moderate eye irritation. May cause slight temporary corneal injury.

Respiratory or Skin Sensitization: Skin contact may cause an allergic skin reaction. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization. May cause allergic respiratory response. MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

Germ Cell Mutagenicity: No data available.

Teratogenicity: No data available.

Carcinogenicity: No data available.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: No relevant data found.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation: May be fatal if swallowed and enters airways.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

4,4' Methylenebisphenyl Isocyanate (101-68-8)	
LD50, rat	LC50, Inhalation, Rat, 1 H
LC50, Inhalation, Rat, 1 H	>2.24 mg/L

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Diphenylmethane Diisocyanate (9016-87-9)	
LC50, Inhalation Rat 4 H	0.5 mg/L
LD50, Dermal Rabbit	>2,000 mg/kg
LD50, Rat	>2,000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing the production of soluble species. Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

Toxicity to Soil Dwelling Organisms: LC50, Earthworm *Eisnia foetida*, adult, 14 d: >1,000 mg/kg.

Persistence and Degradability

In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations by analogy with related diisocyanates.

Bioaccumulative potential: In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Mobility in Soil

Mobility in Soil: No data available for assessment due to technical difficulties with testing.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 91/689/EEC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water. Incineration under approved, controlled conditions using incinerators suitable or designed for the disposal of hazardous chemical waste, is the preferred method for disposal. Small quantities of waste may be pretreated for example with polyol, to neutralize prior to disposal.

Empty drums should be decontaminated (see Section 6) and either punctured and scrapped or given to an approved drum reconditioner.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT Not regulated for transport

14.2 In Accordance with IMDG Not regulated for transport

14.3 In Accordance with IATA Not regulated for transport

14.4 In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

OSHA 29 CFR 1910-1200 – Irritant.

TSCA – All components of this product are listed on TSCA Inventory.

CERCLA Reportable Quantity – Not applicable

SARA Title III:

Section 302 Extremely Hazardous Substances – None

Section 304 – Not applicable.

Section 311/312 – Immediate (acute) health hazard.

Section 313 – None

RCRA – Refer to section 13.

California Proposition 65 Carcinogens: This product does not contain any chemicals known by the state of California to cause cancer.

California Proposition 65 Reproductive Toxins: This product does not contain any chemicals known by the state of California to cause reproductive harm.

Canadian Regulations

WHMIS Classification – D2B

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SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 11/17/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

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This information is based on our knowledge as of the Revision Date and is intended to describe the product only for the purposes of health, safety, and environmental requirements as of the Revision Date. It should not therefore be construed as guaranteeing any specific property of the product nor as providing any warranty, expressed or implied. The user assumes all responsibility, liability, risk of loss, damage, or expense arising out of, or in any way connected with, the handling, storage, use, or disposal of the product.

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