

Safety Data Sheet

Material Name: Weather-Tite® One Step™ Foamable Adhesive, Part A

ID: ML-015EU

*** Section 1 - Identification of the Substance/Preparation and the Company/Undertaking ***

Chemical Name: Urethane adhesive.

Product Use: Roof insulation adhesive.

Manufacturer Information

Millennium Adhesive Products

17340 Munn Road

Chagrin Falls, OH 44023

Mfg Contact: Phone: 440-708-1212;

E-mail: wayne@millenniumadhesives.com

Phone: CHEMTREC 1-800-424-9300 (US)

Emergency # CHEMTREC International 1-703-527-3887

*** Section 2 - Hazards Identification ***

Human and Environmental Hazards

Harmful by inhalation.

Irritating to eyes, respiratory system and skin.

May cause sensitization by inhalation and skin contact.

*** Section 3 - Composition / Information on Ingredients ***

EC #	Component	Percent	Symbols	Risks
Not Established	Polyurethane Polymer	40-60	None	None
Not Established	Polymethylene polyphenylene isocyanate 9016-87-9	10-30	Xn Xi	R:20-36/37/38-42/43
202-966-0	Methylene bisphenol isocyanate (MDI) 101-68-8	10-30	Xn Xi	R:20-36/37/38-42/43
Not Established	Dimethyl silicone polymer with silica 67762-90-7	1-5	None	None

This preparation has been classified for the European Union according to Annex VI Directives 67/548/EEC and 1999/45/EC.

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

First Aid: Skin

Wash exposed skin with soap and water. If irritation develops or persists, seek medical attention. Contaminated leather articles, including shoes, that cannot be decontaminated should be discarded.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions.

First Aid: Inhalation

Move affected individual to an area free of risk from further exposure. Administer oxygen or artificial respiration as needed. Immediate or delayed asthma-like symptoms may develop. Obtain medical attention.

Safety Data Sheet

Material Name: Weather-Tite® One Step™ Foamable Adhesive, Part A

ID: ML-015EU

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

Cool containers with water spray. Containers may burst if overheated. This product reacts with water producing CO₂ gas. Do not reseal contaminated containers as a hazardous pressure build up could result in container rupture.

Hazardous Combustion Products

Combustion products may include carbon oxides, nitrogen oxides, hydrocarbons, HCN and isocyanates.

Extinguishing Media

Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Wear appropriate personal protective equipment. Stop the flow of material, if this is without risk. Do not allow to drain to sewers.

Clean-Up Procedures

Ventilate the contaminated area. Absorb spill with inert material. Shovel material into appropriate container for further neutralization and disposal. Dispose of in accordance with federal, state and local regulations in a permitted waste management facility.

Evacuation Procedures

Evacuate the area promptly. Keep upwind of the spilled material and isolate exposure.

Special Procedures

Avoid inhalation of vapors or mists. Surfaces may become slippery after a spill.

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid contact with skin and eyes. Do not breathe vapors. Wear proper personal protective equipment. Avoid contact with water. Do not re-seal contaminated product as a hazardous build-up of pressure may result from liberation of CO₂ gas. Avoid contact with metals such as aluminum, brass, copper, galvanized metals, tin and zinc.

Storage Procedures

Keep containers properly sealed in a cool, dry, well-ventilated area between 18.3-29.4C (65-85F). Do not store in open, unlabeled or mislabeled containers. Do not reuse empty container without commercial cleaning or reconditioning.

Specific Use

Roof insulation adhesive.

Safety Data Sheet

Material Name: Weather-Tite® One Step™ Foamable Adhesive, Part A

ID: ML-015EU

*** Section 8 - Exposure Controls / Personal Protection ***

Substance Exposure Limits

Methylene bisphenol isocyanate (MDI) (202-966-0)

ACGIH:	0.005 ppm TWA
Austria:	0.01 ppm STEL; 0.1 mg/m3 STEL 0.005 ppm MAK; 0.05 mg/m3 MAK
Belgium:	0.005 ppm TWA; 0.052 mg/m3 TWA
Denmark:	0.005 ppm TWA; 0.05 mg/m3 TWA
France:	0.02 ppm VLCT (5 min); 0.2 mg/m3 VLCT (5 min) 0.01 ppm VME; 0.1 mg/m3 VME
Germany:	0.05 mg/m3 TWA (exposure category 2, exposure factor 1) 10 µg/g creatinine; Parameter = 4,4'-diaminodiphenylmethane; Material = urine; Sampling time = end of exposure/shift 0.05 mg/m3 MAK (inhalable fraction, see also polymeric MDI) 0.05 mg/m3 Peak (as inhalable fraction, see also polymeric MDI)
Greece:	0.02 ppm STEL; 0.2 mg/m3 STEL 0.02 ppm TWA; 0.2 mg/m3 TWA
Ireland:	0.07 mg/m3 STEL (as NCO) 0.02 mg/m3 TWA (as NCO) Sensitizer
Netherlands:	0.02 ppm STEL; 0.21 mg/m3 STEL 0.005 ppm MAC; 0.05 mg/m3 MAC
Portugal:	0.005 ppm TWA
Spain:	0.005 ppm VLA-ED; 0.052 mg/m3 VLA-ED sensitizer
Sweden:	0.002 ppm LLV; 0.03 mg/m3 LLV 0.005 ppm CLV (5 min); 0.05 mg/m3 CLV (5 min)

Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles; add face shield (if splashing is possible).

Personal Protective Equipment: Skin

The use of neoprene, nitrile rubber or butyl rubber gloves is recommended.

Personal Protective Equipment: Respiratory

Use an approved organic vapor respirator to protect against inhalation of vapors. A respirator should be used if ventilation is unavailable, or is inadequate for keeping vapor levels below the applicable exposure limits.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

*** Section 9 - Physical & Chemical Properties ***

Appearance:	Tan viscous liquid.	Odor:	Faint, aromatic.
Physical State:	Liquid.	pH:	Not Available.
Vapor Pressure:	Not Available.	Vapor Density:	Not Available.
Boiling Point:	Not Available.	Melting Point:	Not Available.
Solubility (H2O):	Reacts with water.	Specific Gravity:	1.12
Evaporation Rate:	Not Available.	VOC:	Not Available.
Viscosity:	3,200 - 11,000 cps @ 75°F	Percent Volatile:	<0.15
Octanol/H2O Coeff.:	Not Available.	Flash Point:	>350°F (177°C)
Flash Point Method:	Pensky-Martin Closed Cup	Upper Flammability Limit (UFL):	Not Available.
Lower Flammability Limit (LFL):	Not Available.	Burning Rate:	Not Available.
Auto Ignition:	Not Available.		

Safety Data Sheet

Material Name: Weather-Tite® One Step™ Foamable Adhesive, Part A

ID: ML-015EU

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable at room temperature. Reaction with water (moisture) produces CO₂ gas. Exothermic reaction with materials containing active hydrogen groups.

Chemical Stability: Conditions to Avoid

Avoid high temperatures. Avoid contact with water. Avoid contamination. Avoid contact with metals such as aluminum, brass, copper, galvanized metals, tin and zinc.

Incompatibility

Water, alcohols, amines, bases and acids.

Hazardous Decomposition

Carbon oxides, nitrogen oxides, hydrocarbons, HCN and isocyanates.

Hazardous Polymerisation

Polymerization will occur at elevated temperatures in the presence of alkalis, tertiary amines and metal compounds.

*** Section 11 - Toxicological Information ***

Potential Health Effects

A: General Product Information

This product is harmful by inhalation, when in contact with the skin and if it is swallowed. This product may cause sensitization by inhalation and skin contact. Repeated inhalation of vapors may cause an allergic respiratory response, the onset of which may be delayed several hours after exposure. This product is irritating to the eyes. Symptoms include itching, burning, redness and tearing. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

B: Substance Analysis - LD50/LC50

Polymethylene polyphenylene isocyanate (Not Established)

Inhalation LC50 Rat: 490 mg/m³/4H; Oral LD50 Rat: 49 g/kg; Dermal LD50 Rabbit: >9400 mg/kg

Methylene bisphenol isocyanate (MDI) (202-966-0)

Oral LD50 Rat: 9200 mg/kg

Carcinogenicity

A: General Product Information

No additional information available.

B: Substance Carcinogenicity

Polymethylene polyphenylene isocyanate (Not Established)

IARC: Supplement 7 [1987], Monograph 19 [1979] (Group 3 (not classifiable))
Germany: Category 3 (alveolar-fraction, inhalable aerosol form)
Category 3B (could be carcinogenic for man)

Methylene bisphenol isocyanate (MDI) (202-966-0)

IARC: Monograph 71 [1999], Supplement 7 [1987], Monograph 19 [1979] (Group 3 (not classifiable))
Austria: Group B Carcinogen
Germany: Category 3 (alveolar-fraction, inhalable aerosol form)
Category 3B (could be carcinogenic for man, see also polymeric MDI)

Safety Data Sheet

Material Name: Weather-Tite® One Step™ Foamable Adhesive, Part A

ID: ML-015EU

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for the product. Product is immiscible with water.

B: Substance Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for the substances in this preparation.

Mobility

No information available for the product.

Persistence & Degradation

No information available for the product.

Bioaccumulation

No information available for the product.

Other Adverse Effects

No additional information available.

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions

Avoid disposal, attempt to utilize preparation completely. Prior to disposal of unused preparation, consult an approved waste disposal operative to ensure regulatory compliance. Refer to local statutory requirements for proper disposal instructions.

*** Section 14 - Transportation Information ***

IATA Information

Shipping Name: Not Regulated

ICAO Information

Shipping Name: Not Regulated

IMDG Information

Shipping Name: Not Regulated

ADR Information

Shipping Name: Not Regulated

RID Information

Shipping Name: Not Regulated

Safety Data Sheet

Material Name: Weather-Tite® One Step™ Foamable Adhesive, Part A

ID: ML-015EU

*** Section 15 - Regulatory Information ***

EU MARKING AND LABELLING:

Symbol(s):

Xn-Harmful

Risk Phrases:

R20-Harmful by inhalation.

R36/37/38-Irritating to eyes, respiratory system and skin.

R42/43-May cause sensitization by inhalation and skin contact.

Safety Phrases:

A: General Product Information

S23-Do not breathe vapour/spray.

S45-In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S36/37-Wear suitable protective clothing and gloves.

B: Substance Analysis - Inventory

Component/CAS	EC #	EEC	CAN	TSCA
Polymethylene polyphenylene isocyanate 9016-87-9	Not Established	No	DSL	Yes
Methylene bisphenol isocyanate (MDI) 101-68-8	202-966-0	EINECS	DSL	Yes
Dimethyl silicone polymer with silica 67762-90-7	Not Established	No	DSL	Yes

*** Section 16 - Other Information ***

Substance Risk Phrases

R20-Harmful by inhalation.

R36/37/38-Irritating to eyes, respiratory system and skin.

R42/43-May cause sensitization by inhalation and skin contact.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; DOT = Department of Transportation; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TWA = Time Weighted Average

End of Sheet ML-015EU

Safety Data Sheet

Material Name: Weather-Tite® One Step Foamable Adhesive; Part B

ID: ML-016EU

*** Section 1 - Identification of the Substance/Preparation and the Company/Undertaking ***

Chemical Name: Urethane Adhesive.

Product Use: Part B of an adhesive product.

Manufacturer Information

Millennium Adhesive Products

17340 Munn Road

Chagrin Falls, OH 44023

Mfg Contact: 440-708-1212

E-mail: wayne@millenniumadhesives.com

Phone: CHEMTREC 1-800-424-9300 (US)

Emergency # CHEMTREC International 1-703-527-3887

*** Section 2 - Hazards Identification ***

Human and Environmental Hazards

Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

*** Section 3 - Composition / Information on Ingredients ***

EC #	Component	Percent	Symbols	Risks
500-039-8	Polypropylene glycol 25322-69-4	60-100	None	None
Not Established	Proprietary Tertiary Amines	1-<5	C	R:35
Not Established	Dimethyl silicone polymer with silica 67762-90-7	1-5	None	None
217-164-6	N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine 1760-24-3	1-<5	Xi	R:41-43-37/38

This preparation has been classified for the European Union according to Annex VI Directives 67/548/EEC and 1999/45/EC.

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

First Aid: Skin

Wash exposed skin with soap and water. If irritation develops or persists, seek medical attention. Contaminated leather articles, including shoes, that cannot be decontaminated should be discarded.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions.

First Aid: Inhalation

Move affected individual to an area free of risk from further exposure. Administer oxygen or artificial respiration as needed. Immediate or delayed asthma-like symptoms may develop. Obtain medical attention.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

Cool containers with water spray. Containers may burst if overheated.

Hazardous Combustion Products

Combustion products may include carbon oxides, nitrogen oxides, HCN and organic acid vapors.

Extinguishing Media

Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

Safety Data Sheet

Material Name: Weather-Tite® One Step Foamable Adhesive; Part B

ID: ML-016EU

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Wear appropriate personal protective equipment. Stop the flow of material, if this is without risk. Do not allow to drain to sewers.

Clean-Up Procedures

Ventilate the contaminated area. Absorb spill with inert material. Shovel material into appropriate container for further neutralization and disposal. Dispose of in accordance with federal, state and local regulations in a permitted waste management facility.

Evacuation Procedures

Evacuate the area promptly. Keep upwind of the spilled material and isolate exposure.

Special Procedures

Avoid inhalation of vapors or mists. Surfaces may become slippery after a spill.

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid contact with skin and eyes. Do not breathe vapors. Wear proper personal protective equipment. Avoid contact with water. Do not re-seal contaminated product as a hazardous build-up of pressure may result from liberation of CO2 gas. Avoid contact with metals such as aluminum, brass, copper, galvanized metals, tin and zinc.

Storage Procedures

Keep containers properly sealed in a cool, dry, well-ventilated area between 18.3-29.4C (65-85F). Do not store in open, unlabeled or mislabeled containers. Do not reuse empty container without commercial cleaning or reconditioning.

Specific Use

Part B of an one-step adhesive.

*** Section 8 - Exposure Controls / Personal Protection ***

Substance Exposure Limits

The EU, ACGIH, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, and United Kingdom have not developed exposure limits for any of the substances in this preparation.

Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles; add face shield (if splashing is possible).

Personal Protective Equipment: Skin

The use of neoprene, nitrile rubber or butyl rubber gloves is recommended.

Personal Protective Equipment: Respiratory

Use an approved organic vapor respirator to protect against inhalation of vapors. A respirator should be used if ventilation is unavailable, or is inadequate for keeping vapor levels below the applicable exposure limits.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

Safety Data Sheet

Material Name: Weather-Tite® One Step Foamable Adhesive; Part B

ID: ML-016EU

*** Section 9 - Physical & Chemical Properties ***

Appearance:	Colorless viscous liquid.	Odor:	Polyether.
Physical State:	Liquid.	pH:	Not Available.
Vapor Pressure:	Not Available.	Vapor Density:	Not Available.
Boiling Point:	Not Available.	Melting Point:	Not Available.
Solubility (H₂O):	Not Available.	Specific Gravity:	0.98
Evaporation Rate:	Not Available.	VOC:	Not Available.
Viscosity:	3,200 - 11,000 cps @ 75°F	Percent Volatile:	<0.15
Octanol/H₂O Coeff.:	Not Available.	Flash Point:	>350°F (177°C)
Flash Point Method:	Pensky-Martin Closed Cup	Upper Flammability Limit (UFL):	Not Available.
Lower Flammability Limit (LFL):	Not Available.	Burning Rate:	Not Available.
Auto Ignition:	Not Available.		

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable at room temperature.

Chemical Stability: Conditions to Avoid

Avoid high temperatures. Avoid contact with water. Avoid contamination. Avoid contact with metals such as aluminum, brass, copper, galvanized metals, tin and zinc.

Incompatibility

Water, alcohols, amines, bases and acids.

Hazardous Decomposition

Carbon oxides, nitrogen oxides, hydrocarbons, HCN and organic acid vapors.

Hazardous Polymerisation

Will not occur.

*** Section 11 - Toxicological Information ***

Potential Health Effects

A: General Product Information

Severely irritating to eyes, skin and lungs. May cause allergic skin reactions. May cause burns. May be harmful if swallowed.

B: Substance Analysis - LD50/LC50

Polypropylene glycol (500-039-8)

Oral LD50 Rat: >2 g/kg

N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine (217-164-6)

Oral LD50 Rat: 7460 µL/kg

Carcinogenicity

A: General Product Information

No additional information available.

B: Substance Carcinogenicity

None of the substances in this preparation are listed by IARC, Austria, Belgium, Denmark, France, Germany, Ireland, Luxembourg, Netherlands, Spain, or United Kingdom.

Safety Data Sheet

Material Name: Weather-Tite® One Step Foamable Adhesive; Part B

ID: ML-016EU

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for the product.

B: Substance Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for the substances in this preparation.

Mobility

No information available for the product.

Persistence & Degradation

No information available for the product.

Bioaccumulation

No information available for the product.

Other Adverse Effects

No additional information available.

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions

Avoid disposal, attempt to utilize preparation completely. Prior to disposal of unused preparation, consult an approved waste disposal operative to ensure regulatory compliance. Refer to local statutory requirements for proper disposal instructions.

*** Section 14 - Transportation Information ***

IATA Information

Shipping Name: Not regulated.

ICAO Information

Shipping Name: Not regulated.

IMDG Information

Shipping Name: Not regulated.

ADR Information

Shipping Name: Not regulated.

RID Information

Shipping Name: Not regulated.

*** Section 15 - Regulatory Information ***

EU MARKING AND LABELLING:

Symbol(s):

Xi-Irritant

Risk Phrases:

R36/37/38-Irritating to eyes, respiratory system and skin.

R43-May cause sensitization by skin contact.

Safety Phrases:

A: General Product Information

S36/37-Wear suitable protective clothing and gloves.

S26-In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S60-This material and its container must be disposed of as hazardous waste.

Safety Data Sheet

Material Name: Weather-Tite® One Step Foamable Adhesive; Part B

ID: ML-016EU

B: Substance Analysis - Inventory

Component/CAS	EC #	EEC	CAN	TSCA
Polypropylene glycol 25322-69-4	500-039-8	No	DSL	Yes
Dimethyl silicone polymer with silica 67762-90-7	-	No	DSL	Yes
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine 1760-24-3	217-164-6	EINECS	DSL	Yes

*** Section 16 - Other Information ***

R Phrases Mentioned in Section 3:

R35-Causes severe burns.
R41-Risk of serious damage to eyes.
R43-May cause sensitization by skin contact.
R37/38-Irritating to respiratory system and skin.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; DOT = Department of Transportation; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TWA = Time Weighted Average

End of Sheet ML-016EU