



Material Safety Data Sheet

Material Name: ULTRABOND G19 - Part A

ID: SAH00296

*** Section 1 - Chemical Product and Company Identification ***

Material Name: ULTRABOND G19 - Part A

Product Use

Polyurethane-based adhesive

Manufacturer Information

USA and Puerto Rico

MAPEI

1144 East Newport Center Drive

Deerfield Beach, FL 33442

Phone: 1-954-246-8888

Canada

MAPEI

2900 Francis-Hughes Avenue

Laval, QC H7L 3J5

Phone: 1-450-662-1212

IN THE EVENT OF A CHEMICAL EMERGENCY INVOLVING A SPILL, LEAK, FIRE, EXPLOSION, EXPOSURE OR ACCIDENT, CONTACT THE FOLLOWING NUMBERS:

Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-631-996-6666

*** Section 2 - Hazards Identification ***

Emergency Overview

This product has been evaluated using criteria specified in 29CFR 1910.1200 (Hazard Communication Standard). Liquid and vapors are flammable. This product is irritating to the eyes and skin. May cause sensitization by skin contact.

Hazard Statements

DANGER! FLAMMABLE LIQUID AND VAPOR. IRRITANT. Irritating to eyes and skin. May cause sensitization by skin contact. Vapor harmful. This product may be harmful if it is swallowed. Wear suitable gloves, eye/face protection, and respiratory protection. Keep out of the reach of children.

Potential Health Effects: Eyes

This product is irritating to the eyes. Symptoms can include irritation, redness, scratching of the cornea, and tearing.

Potential Health Effects: Skin

This product is irritating to the skin. Mechanical rubbing may increase skin irritation. Prolonged contact with this product may cause allergic skin sensitization reactions.

Potential Health Effects: Ingestion

Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Potential Health Effects: Inhalation

This product may cause irritation to the respiratory system.

Medical Conditions Aggravated by Exposure

Hypersensitivity to product, allergies, and skin or respiratory disorders

Potential Environmental Effects

No information available for the product.

HMIS Ratings: Health: 2 Fire: 2 Reactivity: 1 Pers. Prot.: Safety glasses, gloves, NIOSH respirator if airborne concentrations exceed exposure limits

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

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

CAS #	Component	Percent
1317-65-3	Limestone	30-60

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Proprietary	Alkyl phenol blocked polyisocyanate	10-30
25085-99-8	Epoxy resin	5-10
27138-31-4	Dipropylene glycol dibenzoate	3-7
141-78-6	Ethylacetate	1-5
67762-90-7	Dimethyl silicone polymer with silica	0.5-1.5
84852-15-3	4-Nonylphenol, branched	0.5-1.5

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

First Aid: Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, get medical attention.

First Aid: Skin

Flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion

Flush out mouth with water. If ingestion of a large amount does occur, seek medical attention. Do not induce vomiting.

First Aid: Inhalation

Immediately remove the affected person to fresh air. If symptoms persist, get medical attention.

First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

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

General Fire Hazards

See Section 9 for Flammability Properties.

Extremely dangerous fire and explosion hazard. Vapors may be ignited by flame, sparks or contact with any hot surface (light bulb or steam pipes) under normal atmospheric conditions. Forms explosive mixtures with air.

DANGEROUS when exposed to heat or flame. This material can be ignited by flame or spark under all normal atmospheric conditions.

Hazardous Combustion Products

Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical (preferred), foam, water.

Fire Fighting Equipment/Instructions

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

NFPA Ratings: Health: 2 Fire: 2 Reactivity: 1

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

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

Personal Precautions

Eliminate ignition sources including sources of electrical, static or frictional sparks. Wear appropriate protective equipment and clothing during clean-up.

Containment Procedures

Contain the discharged material.

Environmental Precautions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Clean-Up Procedures

Attempt to reclaim the free product, if this is possible. Thoroughly wash the area with water after a spill or leak clean-up. Wear appropriate protective equipment and clothing during clean-up. Keep out of the reach of children.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Wear appropriate protective equipment and clothing during clean-up.

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

Handling Procedures

Keep this product from heat, sparks, or open flame. Use only in well ventilated areas. Avoid breathing vapors or mists of this product. Avoid getting this material into contact with your skin and eyes. Keep out of the reach of children.

Storage Procedures

Do not handle or store near an open flame, heat or other sources of ignition. Store in a cool, dry, well-ventilated area. Keep the container tightly closed. Do not freeze.

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

Exposure Guidelines

A: General Product Information

Keep formation of airborne mists to a minimum.

B: Component Exposure Limits

Limestone (1317-65-3)

OSHA:	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
Alberta:	10 mg/m3 TWA
British Columbia:	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction) 20 mg/m3 STEL
New Brunswick:	10 mg/m3 TWA (particulate matter containing no asbestos and < 1% crystalline silica)
NW Territories:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Nunavut:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Quebec:	10 mg/m3 TWAEV (total dust, containing no asbestos and less than 1% crystalline silica)
Saskatchewan:	20 mg/m3 STEL 10 mg/m3 TWA
Yukon:	20 mg/m3 STEL 30 mppcf TWA; 10 mg/m3 TWA

Ethylacetate (141-78-6)

ACGIH:	400 ppm TWA
OSHA:	400 ppm TWA; 1400 mg/m3 TWA
NIOSH:	400 ppm TWA; 1400 mg/m3 TWA
Alberta:	400 ppm TWA; 1440 mg/m3 TWA
British Columbia:	150 ppm TWA
Manitoba:	400 ppm TWA
New Brunswick:	400 ppm TWA; 1440 mg/m3 TWA
NW Territories:	400 ppm TWA; 1441 mg/m3 TWA 500 ppm STEL; 1801 mg/m3 STEL
Nova Scotia:	400 ppm TWA
Nunavut:	400 ppm TWA; 1441 mg/m3 TWA 500 ppm STEL; 1801 mg/m3 STEL
Ontario:	400 ppm TWAEV; 1440 mg/m3 TWAEV
Quebec:	400 ppm TWAEV; 1440 mg/m3 TWAEV
Saskatchewan:	500 ppm STEL 400 ppm TWA
Yukon:	400 ppm STEL; 1400 mg/m3 STEL 400 ppm TWA; 1400 mg/m3 TWA

Engineering Controls

Use general ventilation.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields.

Personal Protective Equipment: Skin

The use of nitrile-latex gloves is recommended.

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Personal Protective Equipment: Respiratory

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Personal Protective Equipment: General

Laundry contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.

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

Appearance:	White paste	Odor:	Slight epoxy odor
Physical State:	Liquid	pH:	N/A
Vapor Pressure:	N/A	Vapor Density:	>1.0
Boiling Point:	>100°F (>38°C)	Melting Point:	N/A
Solubility (H2O):	Insoluble	Specific Gravity:	1.30 - 1.60
Evaporation Rate:	<1.0	VOC:	38 g/L (mixture)
Octanol/H2O Coeff.:	N/A	Flash Point:	104°F (40°C)
Flash Point Method:	CC	Upper Flammability Limit (UFL):	N/A
Lower Flammability Limit (LFL):	N/A	Burning Rate:	N/A
Auto Ignition:	N/A		

Physical Properties: Additional Information

The data provided in this section is to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

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

Chemical Stability

Stable under normal conditions.

Chemical Stability: Conditions to Avoid

Keep away from heat, sparks, or open flame. Eliminate sources of ignition.

Incompatibility

This product may react with strong acids, bases and oxidizing agents.

Hazardous Decomposition

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Possibility of Hazardous Reactions

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Ethylacetate (141-78-6)

Oral LD50 Rat 5620 mg/kg; Dermal LD50 Rabbit >20 mL/kg; Dermal LD50 Rabbit >18000 mg/kg

4-Nonylphenol, branched (84852-15-3)

Oral LD50 Rat 580 mg/kg; Dermal LD50 Rabbit 2031 mg/kg

Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Sensitization

This product may be sensitizing by prolonged skin contact.

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*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Ethylacetate (141-78-6)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	220-250 mg/L	[flow-through]
96 Hr LC50 Oncorhynchus mykiss	484 mg/L	[flow-through]
96 Hr LC50 Oncorhynchus mykiss	352-500 mg/L	[semi-static]
48 Hr EC50 Desmodesmus subspicatus	3300 mg/L	
48 Hr EC50 Daphnia magna	560 mg/L	[Static]

4-Nonylphenol, branched (84852-15-3)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	0.135 mg/L	[flow-through]
96 Hr LC50 Lepomis macrochirus	0.1351 mg/L	[flow-through]
96 Hr EC50 Pseudokirchneriella subcapitata	0.36 - 0.48 mg/L	[static]
72 Hr EC50 Pseudokirchneriella subcapitata	0.16 - 0.72 mg/L	[static]
72 Hr EC50 Desmodesmus subspicatus	1.3 mg/L	
48 Hr EC50 Daphnia magna	0.14 mg/L	

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

No additional information available.

B: Component Waste Numbers

Ethylacetate (141-78-6)

RCRA:	waste number U112 (Ignitable waste)
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Disposal Instructions

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Adhesives

UN/NA #: UN1133 Hazard Class: 3 Packing Group: III

IATA Information

Shipping Name: Adhesives

UN #: UN1133 Hazard Class: 3 Packing Group: III

IMDG Information

Shipping Name: Adhesives

UN/NA #: UN1133 Hazard Class: 3 Packing Group: III

TDG Information

Shipping Name: Adhesives

UN/NA #: UN1133 Hazard Class: 3 Packing Group: III

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*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

All of the components of this product are listed on, or are exempted from listing on the U.S. EPA TSCA Inventory of Chemical Substances. All components of this product are included, or are exempt from inclusion, in the Canadian Domestic Substance List unless otherwise noted.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Ethylacetate (141-78-6)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Limestone	1317-65-3	No	Yes	Yes	Yes	Yes	Yes
Ethylacetate	141-78-6	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! This product contains a chemical known to the state of California to cause cancer.

Canadian WHMIS Information

A: General Product Information



B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Ethylacetate	141-78-6	1 %

Additional Regulatory Information

A: General Product Information

Supplier(s) of proprietary component(s) state that these components are contained on the TSCA inventory.

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Limestone	1317-65-3	Yes	NDSL	EINECS
Epoxy resin	25085-99-8	Yes	DSL	No
Dipropylene glycol dibenzoate	27138-31-4	Yes	DSL	EINECS
Ethylacetate	141-78-6	Yes	DSL	EINECS
Dimethyl silicone polymer with silica	67762-90-7	Yes	DSL	No
4-Nonylphenol, branched	84852-15-3	Yes	DSL	EINECS

*** Section 16 - Other Information ***

Reference

O1-2273-04

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Other Information

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

NA = Not available or Not Applicable. BLV=Biological Limit Values TLV = Threshold Limit Value. NFPA = National Fire Protection Association. HMIS = Hazardous Material Information System. CFR = Code of Federal Regulations. EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Contact: Product Safety Specialist

Contact Phone: 1-954-246-8888

End of Sheet SAH00296



Material Safety Data Sheet

Material Name: ULTRABOND G19 - Part B

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*** Section 1 - Chemical Product and Company Identification ***

Material Name: ULTRABOND G19 - Part B

Product Use

Polyurethane-based adhesive

Manufacturer Information

USA and Puerto Rico

MAPEI

1144 East Newport Center Drive

Deerfield Beach, FL 33442

Phone: 1-954-246-8888

Canada

MAPEI

2900 Francis-Hughes Avenue

Laval, QC H7L 3J5

Phone: 1-450-662-1212

IN THE EVENT OF A CHEMICAL EMERGENCY INVOLVING A SPILL, LEAK, FIRE, EXPLOSION, EXPOSURE OR ACCIDENT, CONTACT THE FOLLOWING NUMBERS:

Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-631-996-6666

*** Section 2 - Hazards Identification ***

Emergency Overview

This product has been evaluated using criteria specified in 29CFR 1910.1200 (Hazard Communication Standard). Flammable liquid - may release vapors that form flammable mixtures at or above the flash point. Causes burns to the skin and eyes. This product is irritating to the respiratory system.

Hazard Statements

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR - VAPOR MAY CAUSE FLASH FIRE.

CORROSIVE. Causes burns to the skin and eyes. Irritating to respiratory system. Vapor harmful. May be harmful or fatal if swallowed. Wear suitable gloves, eye/face protection, and respiratory protection. Keep out of the reach of children.

Potential Health Effects: Eyes

This product is severely irritating to the eyes and may cause eye burns. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Potential Health Effects: Skin

This product is severely irritating to the skin and may cause burns. Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.

Potential Health Effects: Ingestion

This product may be harmful or fatal if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Potential Health Effects: Inhalation

This product is irritating to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination. This product is an asphyxiant gas which can cause unconsciousness/death if OXYGEN levels are sufficiently reduced.

Medical Conditions Aggravated by Exposure

Hypersensitivity to product, allergies, and skin or respiratory disorders

Potential Environmental Effects

No information available for the product.

HMIS Ratings: Health: 3 Fire: 3 Reactivity: 0 Pers. Prot.: Safety glasses, gloves, synthetic apron, vapor respirator if airborne concentrations exceed exposure limits

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

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

CAS #	Component	Percent
108-88-3	Toluene	15-40
90-72-2	2,4,6-Tri(dimethylaminomethyl)phenol	10-30
111-40-0	Diethylene triamine	10-30
80-05-7	Bisphenol A	7-13
68610-56-0	Epoxy resin	7-13

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

First Aid: Eyes

Get medical attention or advice. Immediately flush eyes with plenty of water for at least 15 minutes.

First Aid: Skin

Get medical attention or advice. Flush with large amounts of water.

First Aid: Ingestion

Flush out mouth with water. If the material is swallowed, get immediate medical attention or advice.

First Aid: Inhalation

Get medical attention or advice. Immediately remove the affected person to fresh air.

First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

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

General Fire Hazards

See Section 9 for Flammability Properties.

Extremely dangerous fire and explosion hazard. Vapors may be ignited by flame, sparks or contact with any hot surface (light bulb or steam pipes) under normal atmospheric conditions. Forms explosive mixtures with air.

Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.

Hazardous Combustion Products

Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical (preferred), foam, water.

Fire Fighting Equipment/Instructions

Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

NFPA Ratings: Health: 3 Fire: 3 Reactivity: 0

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

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

Personal Precautions

Eliminate ignition sources including sources of electrical, static or frictional sparks.

Containment Procedures

Contain the discharged material.

Environmental Precautions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Clean-Up Procedures

Attempt to reclaim the free product, if this is possible. Thoroughly wash the area with water after a spill or leak clean-up. Wear appropriate protective equipment and clothing during clean-up. Keep out of the reach of children.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Wear appropriate protective equipment and clothing during clean-up.

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

Handling Procedures

Keep this product from heat, sparks, or open flame. Use only in well ventilated areas. Avoid breathing vapors or mists of this product. Avoid getting this material into contact with your skin and eyes. Keep out of the reach of children.

Storage Procedures

Do not handle or store near an open flame, heat or other sources of ignition. Store in a cool, dry, well-ventilated area. Keep the container tightly closed.

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

A: Component Exposure Limits

Toluene (108-88-3)

ACGIH:	20 ppm TWA
OSHA:	200 ppm TWA 300 ppm Ceiling
NIOSH:	100 ppm TWA; 375 mg/m3 TWA 150 ppm STEL; 560 mg/m3 STEL
Alberta:	50 ppm TWA; 188 mg/m3 TWA Substance may be readily absorbed through intact skin
British Columbia:	Adverse reproductive effect 20 ppm TWA
Manitoba:	20 ppm TWA
New Brunswick:	50 ppm TWA; 188 mg/m3 TWA Skin - potential for cutaneous absorption
NW Territories:	100 ppm TWA; 375 mg/m3 TWA 150 ppm STEL; 560 mg/m3 STEL Skin notation
Nova Scotia:	20 ppm TWA
Nunavut:	100 ppm TWA; 375 mg/m3 TWA 150 ppm STEL; 560 mg/m3 STEL Skin notation
Ontario:	20 ppm TWAEV
Quebec:	50 ppm TWAEV; 188 mg/m3 TWAEV Skin designation
Saskatchewan:	60 ppm STEL 50 ppm TWA
Yukon:	Skin notation 150 ppm STEL; 560 mg/m3 STEL 100 ppm TWA; 375 mg/m3 TWA

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Diethylene triamine (111-40-0)

ACGIH:	Skin - potential significant contribution to overall exposure by the cutaneous route 1 ppm TWA
OSHA:	1 ppm TWA; 4 mg/m3 TWA
NIOSH:	1 ppm TWA; 4 mg/m3 TWA Potential for dermal absorption
Alberta:	1 ppm TWA; 4.2 mg/m3 TWA Substance may be readily absorbed through intact skin
British Columbia:	Sensitizer 1 ppm TWA Skin notation
Manitoba:	1 ppm TWA
New Brunswick:	1 ppm TWA; 4.2 mg/m3 TWA Skin - potential for cutaneous absorption
NW Territories:	1 ppm TWA; 4 mg/m3 TWA 3 ppm STEL; 13 mg/m3 STEL Skin notation
Nova Scotia:	1 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route
Nunavut:	1 ppm TWA; 4 mg/m3 TWA 3 ppm STEL; 13 mg/m3 STEL Skin notation
Ontario:	1 ppm TWAEV; 4 mg/m3 TWAEV Absorption through skin, eyes, or mucous membranes
Quebec:	1 ppm TWAEV; 4.2 mg/m3 TWAEV Skin designation
Saskatchewan:	2 ppm STEL 1 ppm TWA
Yukon:	Skin notation 1 ppm STEL; 4 mg/m3 STEL 1 ppm TWA; 4 mg/m3 TWA

Bisphenol A (80-05-7)

Yukon: 0.05 ppm Ceiling; 2.8 ppm Ceiling

Engineering Controls

Use general ventilation.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields.

Personal Protective Equipment: Skin

The use of nitrile-latex gloves is recommended.

Personal Protective Equipment: Respiratory

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Personal Protective Equipment: General

Launder contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.

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

Appearance:	Amber liquid	Odor:	Solvent odor
Physical State:	Liquid	pH:	N/A
Vapor Pressure:	N/A	Vapor Density:	>3.0
Boiling Point:	>104°F (>40°C)	Melting Point:	N/A
Solubility (H2O):	Insoluble	Specific Gravity:	0.8 - 1.0
Evaporation Rate:	<1.0	VOC:	38 g/L (mixture)
Octanol/H2O Coeff.:	N/A	Flash Point:	59°F (15°C)
Flash Point Method:	CC	Upper Flammability Limit (UFL):	N/A
Lower Flammability Limit (LFL):	N/A	Burning Rate:	N/A
Auto Ignition:	N/A		

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

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Keep away from heat, sparks, or open flame. Eliminate sources of ignition.

Incompatibility

This product may react with strong acids, bases and oxidizing agents.

Hazardous Decomposition

Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Upon decomposition, this product may emit fumes of carbon monoxide, carbon dioxide, oxides of nitrogen, and other organic compounds.

Possibility of Hazardous Reactions

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Toluene (108-88-3)

Inhalation LC50 Rat 12.5 mg/L 4 h; Inhalation LC50 Rat >26700 ppm 1 h; Oral LD50 Rat 636 mg/kg; Dermal LD50 Rabbit 8390 mg/kg; Dermal LD50 Rat 12124 mg/kg

2,4,6-Tri(dimethylaminomethyl)phenol (90-72-2)

Oral LD50 Rat 1000 mg/kg; Dermal LD50 Rat 1280 mg/kg

Diethylene triamine (111-40-0)

Oral LD50 Rat 819 mg/kg; Dermal LD50 Rabbit 672 mg/kg

Bisphenol A (80-05-7)

Oral LD50 Rat 3200 mg/kg; Dermal LD50 Rabbit 3000 mg/kg

Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

Toluene (108-88-3)

ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Sensitization

No information available for the product.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Toluene (108-88-3)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	15.22-19.05 mg/L	[flow-through] 1 day old
96 Hr LC50 Pimephales promelas	12.6 mg/L	[static]
96 Hr LC50 Oncorhynchus mykiss	5.89-7.81 mg/L	[flow-through]
96 Hr LC50 Oncorhynchus mykiss	14.1-17.16 mg/L	[static]
96 Hr LC50 Oncorhynchus mykiss	5.8 mg/L	[semi-static]
96 Hr LC50 Lepomis macrochirus	11.0-15.0 mg/L	[static]
96 Hr LC50 Oryzias latipes	54 mg/L	[static]

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96 Hr LC50 Poecilia reticulata	28.2 mg/L	[semi-static]
96 Hr LC50 Poecilia reticulata	50.87-70.34 mg/L	[static]
96 Hr EC50 Pseudokirchneriella subcapitata	>433 mg/L	
72 Hr EC50 Pseudokirchneriella subcapitata	12.5 mg/L	[static]
48 Hr EC50 Daphnia magna	5.46 - 9.83 mg/L	[static]
48 Hr EC50 Daphnia magna	11.5 mg/L	

Diethylene triamine (111-40-0)

Test & Species		Conditions
96 Hr LC50 Leuciscus idus	430 mg/L	[semi-static]
96 Hr LC50 Poecilia reticulata	248 mg/L	[static]
96 Hr LC50 Poecilia reticulata	1014 mg/L	[semi-static]
72 Hr EC50 Pseudokirchneriella subcapitata	1164 mg/L	
96 Hr EC50 Pseudokirchneriella subcapitata	345.6 mg/L	
96 Hr EC50 Desmodesmus subspicatus	592 mg/L	
24 Hr EC50 Daphnia magna	37 mg/L	
48 Hr EC50 Daphnia magna	16 mg/L	

Bisphenol A (80-05-7)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	3.6-5.4 mg/L	[flow-through]
96 Hr LC50 Pimephales promelas	4.0-5.5 mg/L	[static]
96 Hr LC50 Oncorhynchus mykiss	4 mg/L	
96 Hr LC50 Brachydanio rerio	9.9 mg/L	[static]
96 Hr EC50 Pseudokirchneriella subcapitata	2.5 mg/L	
48 Hr EC50 Daphnia magna	10.2 mg/L	
48 Hr EC50 Daphnia magna	3.9 mg/L	
48 Hr EC50 Daphnia magna	9.2 - 11.4 mg/L	[Static]

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

No information available for the product.

B: Component Waste Numbers

Toluene (108-88-3)

RCRA:	waste number U220
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Disposal Instructions

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Flammable liquids, corrosive, n.o.s. (Toluene , 2,4,6-Tri(dimethylaminomethyl)phenol)

UN/NA #: UN2924 **Hazard Class:** 3 **Packing Group:** II

IATA Information

Shipping Name: Flammable liquid, corrosive, n.o.s. (Toluene , 2,4,6-Tri(dimethylaminomethyl)phenol)

UN #: UN2924 **Hazard Class:** 3 **Packing Group:** II

Material Safety Data Sheet

Material Name: ULTRABOND G19 - Part B

ID: SAH00297

IMDG Information

Shipping Name: Flammable liquid, corrosive, n.o.s. (Toluene , 2,4,6-Tri(dimethylaminomethyl)phenol)

UN #: UN2924 **Hazard Class:** 3 **Packing Group:** II

TDG Information

Shipping Name: Flammable liquid, corrosive, n.o.s. (Toluene , 2,4,6-Tri(dimethylaminomethyl)phenol)

UN/NA #: UN2924 **Hazard Class:** 3, (8) **Packing Group:** II

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

A: General Product Information

All of the components of this product are listed on, or are exempted from listing on the U.S. EPA TSCA Inventory of Chemical Substances. All components of this product are included, or are exempt from inclusion, in the Canadian Domestic Substance List unless otherwise noted.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Toluene (108-88-3)

SARA 313:	1.0 % de minimis concentration
CERCLA:	1000 lb final RQ; 454 kg final RQ

Bisphenol A (80-05-7)

SARA 313:	1.0 % de minimis concentration
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State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes	Yes
Diethylene triamine	111-40-0	Yes	Yes	Yes	Yes	Yes	Yes
Bisphenol A	80-05-7	No	Yes	No	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Canadian WHMIS Information

A: General Product Information



Material Safety Data Sheet

Material Name: ULTRABOND G19 - Part B

ID: SAH00297

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Toluene	108-88-3	1 %
Diethylene triamine	111-40-0	0.1 %
Bisphenol A	80-05-7	1 %

Additional Regulatory Information

A: General Product Information

Supplier(s) of proprietary component(s) state that these components are contained on the TSCA inventory.

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Toluene	108-88-3	Yes	DSL	EINECS
2,4,6-Tri(dimethylaminomethyl)phenol	90-72-2	Yes	DSL	EINECS
Diethylene triamine	111-40-0	Yes	DSL	EINECS
Bisphenol A	80-05-7	Yes	DSL	EINECS
Epoxy resin	68610-56-0	Yes	DSL	No

* * * Section 16 - Other Information * * *

Reference

O1-2270-01

Other Information

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

NA = Not available or Not Applicable. BLV=Biological Limit Values TLV = Threshold Limit Value. NFPA = National Fire Protection Association. HMIS = Hazardous Material Information System. CFR = Code of Federal Regulations. EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Contact: Product Safety Specialist

Contact Phone: 1-954-246-8888

End of Sheet SAH00297