



ND INDUSTRIES, INC.
1893 BARRETT ROAD
TROY, MICHIGAN 48084
 (248) 288-0000 Fax: (248) 288-0022
24 hr. EMERGENCY CHEMTREC:
1-800-424-9300

PRODUCT: 541 High Strength Retaining Compound

MSDS ID: ND2215

ORIG. DATE: 11/13/98

REV. DATE: 2/18/09

REV. DATE: 1/19/11

Part # 2042050

PREPARED BY: Chemical Safety

SECTION I -Material Identification and Information H: 2 F: 1 R: 1 PPEB

COMPONENTS		CAS #	PERCENT %	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Ethoxylated Dimethacrylate	NDA-10-480	24448-20-2	40-50	n.e.	n.e.	
Hydroxyalkyl Methacrylate	NDA-10-235	27813-02-1	30-35	n.e.	n.e.	
Bisphenol-A Fumarate Resin	NDA-10-152	39382-25-7	15-20	n.e.	n.e.	
Cumene Hydroperoxide	NDA-10-151	80-15-9	0.5-2.5	n.e.	n.e.	
Saccharin	NDA-10-150	81-07-2	.5-4	n.e.	n.e.	

All ingredients are listed on the TSCA Inventory.

n.a.= not applicable / n.e.=not established

SECTION II -Physical and Chemical Characteristics

BOILING POINT: >200°F

VAPOR DENSITY: n.a. air = 1

VAPOR PRESSURE: <10 mmHg @ 80°F

MELTING POINT: n.a.

SPECIFIC GRAVITY: 1.09 water = 1

EVAPORATION RATE: n.a.

WATER REACTIVE: n.a.

SOLUBILITY IN WATER: Slight

APPEARANCE AND ODOR: Green liquid with sharp cumene odor.

VOC : 3.55

DENSITY OF COATING:

SECTION III - Fire and Explosion Hazard Data

FLASH POINT: > 200°C TOC

AUTOIGNITION TEMPERATURE: not determined

FLAMMABILITY LIMITS % IN AIR: LEL: not determined UEL: not determined

EXTINGUISHER MEDIA: Use carbon dioxide, foam or dry chemical.

SPECIAL FIREFIGHTING PROCEDURES: Wear a NIOSH approved self-contained breathing apparatus operated in pressure-demand or other positive pressure when fighting fires. Sealed containers may rupture explosively if exposed to heat.

UNUSUAL FIRE HAZARDS AND CONDITIONS TO AVOID: Irritating organic vapors.

MATERIAL SAFETY DATA SHEET

PRODUCT: 541 High Strength Retaining Compound

Part # 2042050

SECTION IV - Reactivity Hazard Data

STABILITY: stable: χ unstable:
HAZARDOUS POLYMERIZATION: may occur: X will not occur:

CONDITIONS High temperature, and direct sunlight.
TO AVOID:

INCOMPATIBILITY: Reducing agents.

HAZARDOUS None known.
DECOMPOSITION
PRODUCTS:

SECTION V - Health Hazard Data

PRIMARY ROUTES OF ENTRY: INHALATION: INGESTION: X SKIN ABSORPTION: X

EYE CONTACT: A primary route of exposure that will cause eye irritation characterized by excessive tearing, redness and blinking.

FIRST AID: Flush eyes with generous amounts of water for at least 15 minutes, lifting both upper and lower eyelids frequently. Get medical attention.

SKIN A primary route of exposure that may cause moderate skin irritation and allergic skin reaction. May cause rash,
CONTACT: redness, swelling and blistering (symptoms may be delayed)

FIRST AID: Thoroughly wash exposed area with soap and water. If irritation develops, seek medical attention. Launder clothing before reuse.

INHALATION: Not a likely route of exposure.

FIRST AID: If overcome by exposure, victim should be removed to fresh air immediately. Give artificial respiration as needed. Get immediate medical attention.

INGESTION: Ingestion may cause irritation of the gastrointestinal tract.

FIRST AID: Do not induce vomiting. Keep individual calm. Immediately seek medical attention.

CHRONIC May cause dermatitis on prolonged contact in sensitive individuals.
EFFECTS:

Carcinogenic:

MATERIAL SAFETY DATA SHEET

PRODUCT: 541 High Strength Retaining Compound **Part # 2042050**

Component	Oral LD50	Dermal LD50	Inhalation LC50
Aromatic Dimethacrylate Ester	not determined	not determined	not determined
Hydroxyalkyl Methacrylate	not determined	not determined	not determined
bisphenol-A A Fumarate Resin	not determined	not determined	not determined
Cumene Hydroperoxide	800-1600 mg/Kg	Severe irritation	700 ppm Rat
Saccharin	not determined	not determined	not determined

SECTION VI - Control and Protective Measures

RESPIRATORY PROTECTION: None needed for normal use. Work in a well ventilated area.

PROTECTIVE GLOVES: Disposable polyethylene gloves with vinyl latex over gloves will give protection.

EYE PROTECTION: Wear NIOSH approved safety glasses with side shields or chemical splash goggles.

VENTILATION TO BE USED: LOCAL EXHAUST: MECHANICAL: SPECIFIC: OTHER (specify):

PROTECTIVE CLOTHING AND EQUIPMENT: Wear impervious clothing to prevent repeated, prolonged skin contact.

HYGIENIC WORK PRACTICES: Practice good personal hygiene and wash hands after handling product.

SECTION VII - Precautions for Safe Handling and Spill/Leak Procedures

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Dike area to prevent spreading. Absorb on vermiculite, sand or other inert absorbing material.

WASTE DISPOSAL METHODS: Dispose of as a chemical waste in accordance with current local, state, and federal regulations

SAFE HANDLING AND STORAGE: Avoid prolonged skin contact. Store product below 110°F to preserve shelf life.

OTHER PRECAUTIONS AND SPECIAL HAZARDOUS INFORMATION:

Avoid prolonged skin contact. Keep away from eyes.

RECOMMENDED
NFPA/HMIS
RATING

HEALTH 2

FLAMMABILITY 1

REACTIVITY 1

PERSONAL
PROTECTION B

note: ratings may differ according to application, environment, and physical state.

MATERIAL SAFETY DATA SHEET

PRODUCT: 541 High Strength Retaining Compound

Part # 2042050

NOTES:

Shipping Regulations:
DOT and IATA Hazard Classification: Non restricted Articles
Proper DOT Shipping Name: N/A

7680

SECTION 313 SUPPLIER NOTIFICATION

Detaching this notification from the Material Safety Data Sheet is prohibited by law and any copying or distribution of same requires this attachment be included.

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>% BY WEIGHT</u>
80-15-9	Cumene hydroperoxide	<3
107-21-1	Ethylene Glycol	Trace

This product contains the following materials that under California Proposition 65 of the Safe Drinking Water and Toxic Enforcement Act of 1986 are recognized to cause cancer or reproductive toxicity.

<u>Material</u>	<u>CAS #</u>	<u>Concentration %</u>	<u>Cancer Agent</u>	<u>Reproductive Toxin</u>	<u>cancer agent & Reproductive Toxin</u>
Ethylene Glycol	107-21-1	Trace		X	

Vibra-TITE is a trademark of ND Industries, Inc.

The information contained herein is based on the data available to us and is believed to be correct. However, ND Industries®, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their properties prior to use. Since conditions of use are beyond our control, all risks are assumed by the user.



ND INDUSTRIES, INC.
1893 BARRETT ROAD
TROY, MICHIGAN 48084
 (248) 288-0000 Fax: (248) 288-0022
24 hr. EMERGENCY CHEMTREC:
1-800-424-9300

PRODUCT: 541 High Strength Retaining Compound

Part # 2042250

MSDS ID: ND2215

ORIG. DATE: 11/13/98

REV. DATE: 2/18/09

REV. DATE: 1/19/11

PREPARED BY: Chemical Safety

SECTION I -Material Identification and Information H: 2 F: 1 R: 1 PPEB

COMPONENTS		CAS #	PERCENT %	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Ethoxylated Dimethacrylate	NDA-10-480	24448-20-2	40-50	n.e.	n.e.	
Hydroxyalkyl Methacrylate	NDA-10-235	27813-02-1	30-35	n.e.	n.e.	
Bisphenol-A Fumarate Resin	NDA-10-152	39382-25-7	15-20	n.e.	n.e.	
Cumene Hydroperoxide	NDA-10-151	80-15-9	0.5-2.5	n.e.	n.e.	
Saccharin	NDA-10-150	81-07-2	.5-4	n.e.	n.e.	

All ingredients are listed on the TSCA Inventory.

n.a.= not applicable / n.e.=not established

SECTION II -Physical and Chemical Characteristics

BOILING POINT: >200°F

VAPOR DENSITY: n.a. air = 1

VAPOR PRESSURE: <10 mmHg @ 80°F

MELTING POINT: n.a.

SPECIFIC GRAVITY: 1.09 water = 1

EVAPORATION RATE: n.a.

WATER REACTIVE: n.a.

SOLUBILITY IN WATER: Slight

APPEARANCE AND ODOR: Green liquid with sharp cumene odor.

VOC : 3.55

DENSITY OF COATING:

SECTION III - Fire and Explosion Hazard Data

FLASH POINT: > 200°C TOC

AUTOIGNITION TEMPERATURE: not determined

FLAMMABILITY LIMITS % IN AIR: LEL: not determined UEL: not determined

EXTINGUISHER MEDIA: Use carbon dioxide, foam or dry chemical.

SPECIAL FIREFIGHTING PROCEDURES: Wear a NIOSH approved self-contained breathing apparatus operated in pressure-demand or other positive pressure when fighting fires. Sealed containers may rupture explosively if exposed to heat.

UNUSUAL FIRE HAZARDS AND CONDITIONS TO AVOID: Irritating organic vapors.

MATERIAL SAFETY DATA SHEET

PRODUCT: 541 High Strength Retaining Compound

Part # 2042250

SECTION IV - Reactivity Hazard Data

STABILITY: stable: χ unstable:
HAZARDOUS POLYMERIZATION: may occur: X will not occur:
CONDITIONS TO AVOID: High temperature, and direct sunlight.

INCOMPATIBILITY: Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

SECTION V - Health Hazard Data

PRIMARY ROUTES OF ENTRY: INHALATION: INGESTION: X SKIN ABSORPTION: X

EYE CONTACT: A primary route of exposure that will cause eye irritation characterized by excessive tearing, redness and blinking.

FIRST AID: Flush eyes with generous amounts of water for at least 15 minutes, lifting both upper and lower eyelids frequently. Get medical attention.

SKIN CONTACT: A primary route of exposure that may cause moderate skin irritation and allergic skin reaction. May cause rash, redness, swelling and blistering (symptoms may be delayed)

FIRST AID: Thoroughly wash exposed area with soap and water. If irritation develops, seek medical attention. Launder clothing before reuse.

INHALATION: Not a likely route of exposure.

FIRST AID: If overcome by exposure, victim should be removed to fresh air immediately. Give artificial respiration as needed. Get immediate medical attention.

INGESTION: Ingestion may cause irritation of the gastrointestinal tract.

FIRST AID: Do no induce vomiting. Keep individual calm. Immediately seek medical attention.

CHRONIC EFFECTS: May cause dermatitis on prolonged contact in sensitive individuals.

Carcinogenic:

MATERIAL SAFETY DATA SHEET

PRODUCT: 541 High Strength Retaining Compound Part # 2042250

Component	Oral LD50	Dermal LD50	Inhalation LC50
Aromatic Dimethacrylate Ester	not determined	not determined	not determined
Hydroxyalkyl Methacrylate	not determined	not determined	not determined
bisphenol-A A Fumarate Resin	not determined	not determined	not determined
Cumene Hydroperoxide	800-1600 mg/Kg	Severe irritation	700 ppm Rat
Saccharin	not determined	not determined	not determined

SECTION VI - Control and Protective Measures

RESPIRATORY PROTECTION: None needed for normal use. Work in a well ventilated area.

PROTECTIVE GLOVES: Disposable polyethylene gloves with vinyl latex over gloves will give protection.

EYE PROTECTION: Wear NIOSH approved safety glasses with side shields or chemical splash goggles.

VENTILATION TO BE USED: LOCAL EXHAUST: MECHANICAL: SPECIFIC: OTHER (specify):

PROTECTIVE CLOTHING AND EQUIPMENT: Wear impervious clothing to prevent repeated, prolonged skin contact.

HYGIENIC WORK PRACTICES: Practice good personal hygiene and wash hands after handling product.

SECTION VII - Precautions for Safe Handling and Spill/Leak Procedures

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Dike area to prevent spreading. Absorb on vermiculite, sand or other inert absorbing material.

WASTE DISPOSAL METHODS: Dispose of as a chemical waste in accordance with current local, state, and federal regulations

SAFE HANDLING AND STORAGE: Avoid prolonged skin contact. Store product below 110°F to preserve shelf life.

OTHER PRECAUTIONS AND SPECIAL HAZARDOUS INFORMATION:

Avoid prolonged skin contact. Keep away from eyes.

RECOMMENDED
NFPA/HMIS
RATING

HEALTH 2

FLAMMABILITY 1

REACTIVITY 1

PERSONAL
PROTECTION B

note: ratings may differ according to application, environment, and physical state.

MATERIAL SAFETY DATA SHEET

PRODUCT: 541 High Strength Retaining Compound Part # 2042250

NOTES:

Shipping Regulations:
DOT and IATA Hazard Classification: Non restricted Articles
Proper DOT Shipping Name: N/A

7680

SECTION 313 SUPPLIER NOTIFICATION

Detaching this notification from the Material Safety Data Sheet is prohibited by law and any copying or distribution of same requires this attachment be included.

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>% BY WEIGHT</u>
80-15-9	Cumene hydroperoxide	<3
107-21-1	Ethylene Glycol	Trace

This product contains the following materials that under California Proposition 65 of the Safe Drinking Water and Toxic Enforcement Act of 1986 are recognized to cause cancer or reproductive toxicity.

<u>Material</u>	<u>CAS #</u>	<u>Concentration %</u>	<u>Cancer Agent</u>	<u>Reproductive Toxin</u>	<u>cancer agent & Reproductive Toxin</u>
Ethylene Glycol	107-21-1	Trace		X	

Vibra-TITE is a trademark of ND Industries, Inc.

The information contained herein is based on the data available to us and is believed to be correct. However, ND Industries®, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their properties prior to use. Since conditions of use are beyond our control, all risks are assumed by the user.



ND INDUSTRIES, INC. (248) 288-0000 Fax: (248) 288-0022
 1893 BARRETT ROAD 24 hr. EMERGENCY CHEMTREC:
 TROY, MICHIGAN 48084 1-800-424-9300

PRODUCT: 542000 (542) Shaft & Bearing Retaining Compound
 MSDS ID: ND2111
 ORIG. DATE: 5/13/98
 REV. DATE: 6/2/04
 REV. DATE: 6/28/07

Part # 2043010

PREPARED BY: Chemical Safety

SECTION I -Material Identification and Information H: 2 F: 1 R: 1 PPEB

COMPONENTS	CAS #	PERCENT %	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Aliphatic urethane methacrylate blend	NDA-09-342	trade secret	40-50	n.e.	n.e.
Dimethacrylate ester	NDA-09-235	27813-02-1	30-40	n.e.	n.e.
Polyester resin	NDA-09-152	trade secret	10-20	n.e.	n.e.
Cumene hydroperoxide	NDA-09-151	80-15-9	1-10	n.e.	n.e.
Substituted silane	NDA-09-265	2530-85-0	1-10	n.e.	n.e.

All ingredients are listed on the TSCA Inventory.

n.a. = not applicable / n.e. = not established

SECTION II -Physical and Chemical Characteristics

BOILING POINT: >150°C
VAPOR DENSITY: >1 air = 1
VAPOR PRESSURE: <10 mmHg @ 25°C
MELTING POINT: n.a.
SPECIFIC GRAVITY: ~1.1 water = 1
EVAPORATION RATE: n.a.
WATER REACTIVE: No
SOLUBILITY IN WATER: slight
APPEARANCE AND ODOR: Green liquid with sharp odor.

VOC #/gal. : 46.2%
DENSITY OF COATING:

SECTION III - Fire and Explosion Hazard Data

FLASH POINT: > 200°C T.C.C.
AUTOIGNITION TEMPERATURE: not determined
FLAMMABILITY LIMITS % IN AIR: LEL: not determined UEL: not determined
EXTINGUISHER MEDIA: Use carbon dioxide, foam, dry chemical and/or water spray.

SPECIAL FIREFIGHTING PROCEDURES: Wear a NIOSH approved self-contained breathing apparatus operated in pressure-demand or other positive pressure when fighting fires. Sealed containers may rupture explosively if exposed to heat.

UNUSUAL FIRE HAZARDS AND CONDITIONS TO AVOID: Combustion of product may produce oxides of carbon.

PRODUCT: 542000 (542) Retaining Compound

Part # 2043010

SECTION IV - Reactivity Hazard Data

STABILITY: **stable:** **unstable:**
HAZARDOUS POLYMERIZATION: **may occur:** **will not occur:**

CONDITIONS TO AVOID: Avoid storage over 100°F, contamination with incompatible materials.

INCOMPATIBILITY: Avoid contact with metal salts, heat, or amines.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

SECTION V - Health Hazard Data

PRIMARY ROUTES OF ENTRY: **INHALATION:** **INGESTION:** **SKIN ABSORPTION:**

EYE CONTACT: A primary route of exposure that will cause eye irritation characterized by excessive tearing, redness and blinking.

FIRST AID: Flush eyes with generous amounts of water for at least 15 minutes, lifting both upper and lower eyelids frequently. Get medical attention.

SKIN CONTACT: A primary route of exposure that may cause moderate skin irritation and allergic skin reaction. May cause rash, redness, swelling and blistering (symptoms may be delayed)

FIRST AID: Thoroughly wash exposed area with soap and water. If irritation develops, seek medical attention. Launder clothing before reuse.

INHALATION: Not a likely route of exposure.

FIRST AID: If overcome by exposure, victim should be removed to fresh air immediately. Give artificial respiration as needed. Get immediate medical attention.

INGESTION: Ingestion may cause irritation of the gastrointestinal tract.

FIRST AID: Do no induce vomiting. Immediately seek medical attention.

CHRONIC EFFECTS: None known.

Carcinogenic: Contains saccharin which has been determined to cause cancer in laboratory animals.

PRODUCT: 542000 (542) Retaining Compound

Part # 2043010

Component	Oral LD50	Dermal LD50	Inhalation LC50
Polyester resin	not determined	not determined	not determined
Dimethacrylate ester	not determined	not determined	not determined
Cumene hydroperoxide	382 mg/Kg Rat	>200 mg/kg Rabbit	220 ppm Rat
Substituted silane	not determined	not determined	not determined
Aliphatic urethane methacrylate blend	not determined	not determined	not determined

SECTION VI - Control and Protective Measures

RESPIRATORY PROTECTION: Wear NIOSH/MOSHA approved respirator. Work in a well ventilated area.

PROTECTIVE GLOVES: Disposable polyethylene gloves with vinyl latex over gloves will give protection.

EYE PROTECTION: Wear NIOSH approved safety glasses with side shields.

VENTILATION TO BE USED: LOCAL EXHAUST: **X** MECHANICAL: SPECIFIC: OTHER (specify):

PROTECTIVE CLOTHING AND EQUIPMENT: Wear impervious clothing to prevent repeated, prolonged skin contact.

HYGIENIC WORK PRACTICES: Practice good personal hygiene and wash hands after handling product.

SECTION VII - Precautions for Safe Handling and Spill/Leak Procedures

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Dike area to prevent spreading. Absorb with vermiculite, sand or other inert absorbing material.

WASTE DISPOSAL METHODS: Dispose of as a chemical waste in accordance with current local, state, and federal regulations

SAFE HANDLING AND STORAGE: Avoid prolonged skin contact. Store product below 110°F to preserve shelf life.

OTHER PRECAUTIONS AND SPECIAL HAZARDOUS INFORMATION:

Avoid prolonged skin contact. Keep away from eyes.

RECOMMENDED NFPA/HMIS RATING

HEALTH 2

FLAMMABILITY 1

REACTIVITY 1

PERSONAL PROTECTION B

note: ratings may differ according to application, environment, and physical state.

PRODUCT: 542000 (542) Retaining Compound

Part # 2043010

NOTES:

Shipping Regulations:
DOT and IATA Hazard Classification: Non restricted Articles
Proper DOT Shipping Name: N/A

SECTION 313 SUPPLIER NOTIFICATION

Detaching this notification from the Material Safety Data Sheet is prohibited by law and any copying or distribution of same requires this attachment be included.

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>% BY WEIGHT</u>
80-15-9	Cumene hydroperoxide	<3
107-21-1	Ethylene glycol	

This product contains the following materials that under California Proposition 65 of the Safe Drinking Water and Toxic Enforcement Act of 1986 are recognized to cause cancer or reproductive toxicity.

<u>Material</u>	<u>CAS #</u>	<u>Concentration %</u>	<u>Cancer Agent</u>	<u>Reproductive Toxin</u>	<u>cancer agent & Reproductive Toxin</u>
Aliphatic urethane methacrylate blend					X
Ethylene glycol	107-21-1			X	

Vibra-TITE is a trademark of ND Industries, Inc.

The information contained herein is based on the data available to us and is believed to be correct. However, ND Industries®, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their properties prior to use. Since conditions of use are beyond our control, all risks are assumed by the user.



ND INDUSTRIES, INC. (248) 288-0000 Fax: (248) 288-0022
 1893 BARRETT ROAD 24 hr. EMERGENCY CHEMTREC:
 TROY, MICHIGAN 48084 1-800-424-9300

PRODUCT: 542000 (542) Shaft & Bearing Retaining Compound
 MSDS ID: ND2111 Part # 2043050
 ORIG. DATE: 5/13/98
 REV. DATE: 6/2/04
 REV. DATE: 6/28/07
 PREPARED BY: Chemical Safety

SECTION I -Material Identification and Information H: 2 F: 1 R: 1 PPEB

COMPONENTS	CAS #	PERCENT %	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Aliphatic urethane methacrylate blend	NDA-09-342	trade secret	40-50	n.e.	n.e.
Dimethacrylate ester	NDA-09-235	27813-02-1	30-40	n.e.	n.e.
Polyester resin	NDA-09-152	trade secret	10-20	n.e.	n.e.
Cumene hydroperoxide	NDA-09-151	80-15-9	1-10	n.e.	n.e.
Substituted silane	NDA-09-265	2530-85-0	1-10	n.e.	n.e.

All ingredients are listed on the TSCA Inventory. n.a. = not applicable / n.e. = not established

SECTION II -Physical and Chemical Characteristics

BOILING POINT:	>150°C	VOC #/gal. :	46.2%
VAPOR DENSITY:	>1 air = 1	DENSITY OF COATING:	
VAPOR PRESSURE:	<10 mmHg @ 25°C		
MELTING POINT:	n.a.		
SPECIFIC GRAVITY:	~1.1 water = 1		
EVAPORATION RATE:	n.a.		
WATER REACTIVE:	No		
SOLUBILITY IN WATER:	slight		
APPEARANCE AND ODOR:	Green liquid with sharp odor.		

SECTION III - Fire and Explosion Hazard Data

FLASH POINT:	> 200°C	T.C.C.
AUTOIGNITION TEMPERATURE:	not determined	
FLAMMABILITY LIMITS % IN AIR:	LEL: not determined	UEL: not determined
EXTINGUISHER MEDIA:	Use carbon dioxide, foam, dry chemical and/or water spray.	
SPECIAL FIREFIGHTING PROCEDURES:	Wear a NIOSH approved self-contained breathing apparatus operated in pressure-demand or other positive pressure when fighting fires. Sealed containers may rupture explosively if exposed to heat.	
UNUSUAL FIRE HAZARDS AND CONDITIONS TO AVOID:	Combustion of product may produce oxides of carbon.	

PRODUCT: 542000 (542) Retaining Compound Part # 2043050

SECTION IV - Reactivity Hazard Data

STABILITY: **stable:** **unstable:**
HAZARDOUS POLYMERIZATION: **may occur:** **will not occur:**

CONDITIONS TO AVOID: Avoid storage over 100°F, contamination with incompatible materials.

INCOMPATIBILITY: Avoid contact with metal salts, heat, or amines.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

SECTION V - Health Hazard Data

PRIMARY ROUTES OF ENTRY: **INHALATION:** **INGESTION:** **SKIN ABSORPTION:**

EYE CONTACT: A primary route of exposure that will cause eye irritation characterized by excessive tearing, redness and blinking.

FIRST AID: Flush eyes with generous amounts of water for at least 15 minutes, lifting both upper and lower eyelids frequently. Get medical attention.

SKIN CONTACT: A primary route of exposure that may cause moderate skin irritation and allergic skin reaction. May cause rash, redness, swelling and blistering (symptoms may be delayed)

FIRST AID: Thoroughly wash exposed area with soap and water. If irritation develops, seek medical attention. Launder clothing before reuse.

INHALATION: Not a likely route of exposure.

FIRST AID: If overcome by exposure, victim should be removed to fresh air immediately. Give artificial respiration as needed. Get immediate medical attention.

INGESTION: Ingestion may cause irritation of the gastrointestinal tract.

FIRST AID: Do no induce vomiting. Immediately seek medical attention.

CHRONIC EFFECTS: None known.

Carcinogenic: Contains saccharin which has been determined to cause cancer in laboratory animals.

PRODUCT: 542000 (542) Retaining Compound

Part # 2043050

Component	Oral LD50	Dermal LD50	Inhalation LC50
Polyester resin	not determined	not determined	not determined
Dimethacrylate ester	not determined	not determined	not determined
Cumene hydroperoxide	382 mg/Kg Rat	>200 mg/kg Rabbit	220 ppm Rat
Substituted silane	not determined	not determined	not determined
Aliphatic urethane methacrylate blend	not determined	not determined	not determined

SECTION VI - Control and Protective Measures

RESPIRATORY PROTECTION: Wear NIOSH/MOSHA approved respirator. Work in a well ventilated area.

PROTECTIVE GLOVES: Disposable polyethylene gloves with vinyl latex over gloves will give protection.

EYE PROTECTION: Wear NIOSH approved safety glasses with side shields.

VENTILATION TO BE USED: LOCAL EXHAUST: **X** MECHANICAL: SPECIFIC: OTHER (specify):

PROTECTIVE CLOTHING AND EQUIPMENT: Wear impervious clothing to prevent repeated, prolonged skin contact.

HYGIENIC WORK PRACTICES: Practice good personal hygiene and wash hands after handling product.

SECTION VII - Precautions for Safe Handling and Spill/Leak Procedures

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Dike area to prevent spreading. Absorb with vermiculite, sand or other inert absorbing material.

WASTE DISPOSAL METHODS: Dispose of as a chemical waste in accordance with current local, state, and federal regulations

SAFE HANDLING AND STORAGE: Avoid prolonged skin contact. Store product below 110°F to preserve shelf life.

OTHER PRECAUTIONS AND SPECIAL HAZARDOUS INFORMATION:

Avoid prolonged skin contact. Keep away from eyes.

RECOMMENDED NFPA/HMIS RATING

HEALTH 2

FLAMMABILITY 1

REACTIVITY 1

PERSONAL PROTECTION B

note: ratings may differ according to application, environment, and physical state.

PRODUCT: 542000 (542) Retaining Compound

Part # 2043050

NOTES:

Shipping Regulations:
DOT and IATA Hazard Classification: Non restricted Articles
Proper DOT Shipping Name: N/A

SECTION 313 SUPPLIER NOTIFICATION

Detaching this notification from the Material Safety Data Sheet is prohibited by law and any copying or distribution of same requires this attachment be included.

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>% BY WEIGHT</u>
80-15-9	Cumene hydroperoxide	<3
107-21-1	Ethylene glycol	

This product contains the following materials that under California Proposition 65 of the Safe Drinking Water and Toxic Enforcement Act of 1986 are recognized to cause cancer or reproductive toxicity.

<u>Material</u>	<u>CAS #</u>	<u>Concentration %</u>	<u>Cancer Agent</u>	<u>Reproductive Toxin</u>	<u>cancer agent & Reproductive Toxin</u>
Aliphatic urethane methacrylate blend Ethylene glycol	107-21-1			X	X

Vibra-TITE is a trademark of ND Industries, Inc.

The information contained herein is based on the data available to us and is believed to be correct. However, ND Industries®, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their properties prior to use. Since conditions of use are beyond our control, all risks are assumed by the user.



ND INDUSTRIES, INC. (248) 288-0000 Fax: (248) 288-0022
 1893 BARRETT ROAD 24 hr. EMERGENCY CHEMTREC:
 TROY, MICHIGAN 48084 1-800-424-9300

PRODUCT: 440400 (444) Anaerobic Hydraulic Sealant
 MSDS ID: ND2164 Part # 2065050
 ORIG. DATE: 11/13/98
 REV. DATE: 4/3/02
 REV. DATE: 6/1/07

PREPARED BY: Chemical Safety

SECTION I -Material Identification and Information H: 2 F: 1 R: 1 PPEB

COMPONENTS	CAS #	PERCENT %	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Polyglycol Dimethacrylate	trade secret	50-65	n.e.	n.e.	
Polyglycol dioctanoate	trade secret	10-30	n.e.	n.e.	
Saccharin	81-07-2	.1-1	n.e.	n.e.	
Cumene hydroperoxide	trade secret	.5-3	n.e.	n.e.	
1-Acetyl-2-phenylhydrazine	114-83-0	.2-2	n.e.	n.e.	
Polybutyl Methacrylate	trade secret	5-10	n.e.	n.e.	

All ingredients are listed on the TSCA Inventory. n.a. = not applicable / n.e. = not established

SECTION II -Physical and Chemical Characteristics

BOILING POINT:	>300°C		VOC #/gal. :
VAPOR DENSITY:	>1	air = 1	DENSITY OF COATING:
VAPOR PRESSURE:	n.a.		
MELTING POINT:	n.a.		
SPECIFIC GRAVITY:	~1.05	water = 1	
EVAPORATION RATE:	n.a.		
WATER REACTIVE:	No		
SOLUBILITY IN WATER:	insoluble		
APPEARANCE AND ODOR:	Brown liquid with mild odor.		

SECTION III - Fire and Explosion Hazard Data

FLASH POINT:	> 200°C	T.C.C.
AUTOIGNITION TEMPERATURE:	not determined	
FLAMMABILITY LIMITS % IN AIR:	LEL: not determined	UEL: not determined
EXTINGUISHER MEDIA:	Use carbon dioxide, foam, dry chemical and/or water spray.	
SPECIAL FIREFIGHTING PROCEDURES:	Wear a NIOSH approved self-contained breathing apparatus operated in pressure-demand or other positive pressure when fighting fires. Sealed containers may rupture explosively if exposed to heat.	
UNUSUAL FIRE HAZARDS AND CONDITIONS TO AVOID:	Combustion of product may produce oxides of carbon.	

PRODUCT: 440400 (444) Anaerobic Hydraulic Sealant Part # 2065050

SECTION IV - Reactivity Hazard Data

STABILITY: stable: **x** unstable:
HAZARDOUS POLYMERIZATION: may occur: will not occur: **X**

CONDITIONS TO AVOID: Avoid storage over 100°F, contamination with incompatible materials.

INCOMPATIBILITY: Avoid contact with metal salts, heat, or amines.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

SECTION V - Health Hazard Data

PRIMARY ROUTES OF ENTRY: INHALATION: INGESTION: **X** SKIN ABSORPTION: **X**

EYE CONTACT: A primary route of exposure that will cause eye irritation characterized by excessive tearing, redness and blinking.

FIRST AID: Flush eyes with generous amounts of water for at least 15 minutes, lifting both upper and lower eyelids frequently. Get medical attention.

SKIN CONTACT: A primary route of exposure that may cause moderate skin irritation and allergic skin reaction. May cause rash, redness, swelling and blistering (symptoms may be delayed)

FIRST AID: Thoroughly wash exposed area with soap and water. If irritation develops, seek medical attention. Launder clothing before reuse.

INHALATION: Not a likely route of exposure.

FIRST AID: If overcome by exposure, victim should be removed to fresh air immediately. Give artificial respiration as needed. Get immediate medical attention.

INGESTION: Ingestion may cause irritation of the gastrointestinal tract.

FIRST AID: Do no induce vomiting. Immediately seek medical attention.

CHRONIC EFFECTS: None known.

Carcinogenic: Contains saccharin which has been determined to cause cancer in laboratory animals.

PRODUCT: 440400 (444) Anaerobic Hydraulic Sealant

Part # 2065050

Component	Oral LD50	Dermal LD50	Inhalation LC50
Polyglycol Dimethacrylate	not determined	not determined	not determined
Polyglycol dioctanoate	not determined	not determined	not determined
Saccharin	not determined	not determined	not determined
Cumene hydroperoxide	800-1600 mg/Kg Rat 270 mg/kg (mouse)	Severe irritation (delayed)	700 ppm Rat
1-Acetyl-2-phenylhydrazine	not determined	not determined	not determined
Polybutyl Methacrylate		not determined	not determined

SECTION VI - Control and Protective Measures

RESPIRATORY PROTECTION: Use proper positive air flow ventilation in work areas.

PROTECTIVE GLOVES: Disposable polyethylene gloves with vinyl latex over gloves will give protection.

EYE PROTECTION: Wear NIOSH approved safety glasses with side shields or safety goggles.

VENTILATION TO BE USED: LOCAL EXHAUST: MECHANICAL: SPECIFIC: OTHER (specify):

PROTECTIVE CLOTHING AND EQUIPMENT: Wear impervious clothing to prevent repeated, prolonged skin contact.

HYGIENIC WORK PRACTICES: Practice good personal hygiene and wash hands after handling product.

SECTION VII - Precautions for Safe Handling and Spill/Leak Procedures

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

dike area to prevent spreading. Absorb on vermiculite, sand or other inert absorbing material.

WASTE DISPOSAL METHODS: Dispose of as a chemical waste in accordance with current local, state, and federal regulations

SAFE HANDLING AND STORAGE: Avoid prolonged skin contact. Store product below 100°F to preserve shelf life.

OTHER PRECAUTIONS AND SPECIAL HAZARDOUS INFORMATION:

Avoid prolonged skin contact. Keep away from eyes.

RECOMMENDED NFPA/HMIS RATING

HEALTH 2

FLAMMABILITY 1

REACTIVITY 1

PERSONAL PROTECTION B

note: ratings may differ according to application, environment, and physical state.

PRODUCT: 440400 (444) Anaerobic Hydraulic Sealant Part # 2065050

NOTES:

Shipping Regulations:
DOT and IATA Hazard Classification: Non restricted Articles
Proper DOT Shipping Name: N/A

SECTION 313 SUPPLIER NOTIFICATION

Detaching this notification from the Material Safety Data Sheet is prohibited by law and any copying or distribution of same requires this attachment be included.

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>% BY WEIGHT</u>
80-15-9	Cumene hydroperoxide	.5-3

This product contains the following materials that under California Proposition 65 of the Safe Drinking Water and Toxic Enforcement Act of 1986 are recognized to cause cancer or reproductive toxicity.

<u>Material</u>	<u>CAS #</u>	<u>Concentration %</u>	<u>Cancer Agent</u>	<u>Reproductive Toxin</u>	<u>cancer agent & Reproductive Toxin</u>
Saccharin	81-07-2	0.1-1%	X		

Vibra-TITE is a trademark of ND Industries, Inc.

The information contained herein is based on the data available to us and is believed to be correct. However, ND Industries®, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their properties prior to use. Since conditions of use are beyond our control, all risks are assumed by the user.