



Printing date 03/06/2019 Reviewed on 02/28/2019

1 Identification

- Product identifier

- Trade name: Vibra-TITE® Retaining Compound

- Synonyms: 538 High Strength Retaining Compound

- Part number: VT538

- Application of the substance / the mixture

Retanning agents Assembly adhesive

- Details of the supplier of the safety data sheet

- Manufacturer/Supplier:

ND Industries, Inc 1000 North Crooks Road Clawson, MI 48017 USA

Telephone: +1-248-288-0000 Email: info@ndindustries.com Website: www.ndindustries.com

- Information department: Product safety department

- Emergency telephone number:

United States: 1-800-424-9300 International: +1-703-527-3887

2 Hazard(s) identification

- Classification of the substance or mixture



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Label elements

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

- Hazard pictograms







GHS05 GHS07 GHS08

- Signal word Danger

- Hazard-determining components of labeling:

 $(1-methylethylidene) bis (4,1-phenyleneoxy-2,1-ethanediyl)\ bismethacrylate$

acrylic acid

Diacrylate

2-hydroxyethyl methacrylate

2-[[3-hydroxy-2,2-bis[[(1-oxoallyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate

Methacryloxypropyltrimethoxysilane

2'-phenylacetohydrazide

- Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

Printing date 03/06/2019 Reviewed on 02/28/2019

Trade name: Vibra-TITE® Retaining Compound

(Contd. of page 1)

H361 Suspected of damaging fertility or the unborn child.

- Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P264 Wash face, hands and any exposed skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P280 Wear protective gloves.

P280 Wear eye protection / face protection. P302+P352 If on skin: Wash with plenty of water.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P310 Immediately call a poison center/doctor.

P308+P313 IF exposed or concerned: Get medical advice/attention.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:

NFPA ratings (scale 0 - 4)



- HMIS-ratings (scale 0 - 4)



- Other hazards

- Results of PBT and vPvB assessment
 - PBT: Not applicable.
 - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures

- Description: Mixture of the substances listed below with nonhazardous additions.

 Dangerous 	components:	
CAS: 24448-20-2	(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate	30 – 39%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1B, H317	
CAS: 868-77-9	2-hydroxyethyl methacrylate	10 – 19%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	_
CAS: 7779-31-9	Methacrylate onomer	10 – 19%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319	
CAS: 42594-17-2	Diacrylate	5 – 9%
	Repr. 2, H361; Skin Sens. 1, H317	_
CAS: 79-10-7	acrylic acid	4.7%
	Flam. Liq. 3, H226; Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	_
CAS: 60506-81-2	2-[[3-hydroxy-2,2-bis[[(1-oxoallyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate	1 – 4%
	Eye Irrit. 2A, H319; Skin Sens. 1, H317	_
CAS: 26936-30-1	Methacryloxypropyltrimethoxysilane	≤ 1%
	Eye Irrit. 2A, H319; Skin Sens. 1, H317	
CAS: 114-83-0	2'-phenylacetohydrazide	≤ 1%
	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	_
CAS: 98-82-8	cumene	≤ 1%
	Flam. Liq. 3, H226; Carc. 2, H351; Asp. Tox. 1, H304; Acute Tox. 4, H302; STOT SE 3, H335	

4 First-aid measures

- Description of first aid measures

- General information: Immediately remove any clothing soiled by the product.

Safety Data Sheet

Printing date 03/06/2019 Reviewed on 02/28/2019

Trade name: Vibra-TITE® Retaining Compound

(Contd. of page 2)

- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air; consult doctor in case of complaints.

- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- Information for doctor:
 - Most important symptoms and effects, both acute and delayed No further relevant information available.
 - Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- Extinguishing media

- Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

CO2, sand, extinguishing powder. Do not use water.

- For safety reasons unsuitable extinguishing agents: Water
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
 - Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Wear protective clothing.

- Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- Methods and material for containment and cleaning up:

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

Dispose of the collected material according to regulations.

- Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- Handling:

- Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities

- Storage:
 - Requirements to be met by storerooms and receptacles: No special requirements.
 - Information about storage in one common storage facility: Not required.
 - Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters

- Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Printing date 03/06/2019 Reviewed on 02/28/2019

Trade name: Vibra-TITE® Retaining Compound

(Contd. of page 3)

CAS	CAS: 79-10-7 acrylic acid			
REL	Long-term value: 6 mg/m³, 2 ppm Skin			
TLV	Long-term value: 5.9 mg/m³, 2 ppm Skin			
CAS	CAS: 98-82-8 cumene			
PEL	Long-term value: 245 mg/m³, 50 ppm Skin			
REL	Long-term value: 245 mg/m³, 50 ppm Skin			
TLV	Long-term value: (246) NIC-0.5 mg/m³, (50) NIC-0.1 ppm NIC-A3			

- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls

- Personal protective equipment:
 - General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- Breathing equipment:

Not required.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Nitrile rubber, NBR

- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eve protection:



Tightly sealed goggles

- Body protection: Protective work clothing

9 Physical and chemical properties

- Information on basic physical and che - General Information	mical properties
- Appearance:	
- Form:	Viscous
- Color:	Green
- Odor:	Weak, characteristic
- Odor threshold:	Not determined.
- pH-value:	Not determined.
- Change in condition	
 Melting point/Melting range: 	Undetermined.
 Boiling point/Boiling range: 	≥ 170 °C (≥ 338 °F)
- Flash point:	94 °C (201.2 °F)
- Flammability (solid, gaseous):	Not applicable.
- Decomposition temperature:	Not determined.
- Auto igniting:	Product is not selfigniting.

Printing date 03/06/2019 Reviewed on 02/28/2019

Trade name: Vibra-TITE® Retaining Compound

(Contd. of page 4)

 Danger of explosion: 	Product does not present an explosion hazard.
- Explosion limits:	
- Lower:	Not determined.
- Upper:	Not determined.
- Vapor pressure at 68 °C (154.4 °F):	≤ 1.3 hPa (≤ 1 mm Hg)
- Density at 20 °C (68 °F):	~ 1.1 g/cm³ (~ 9.1795 lbs/gal)
- Relative density	Not determined.
- Vapor density	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with	
- Water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/wate	er): Not determined.
- Viscosity:	
- Dynamic at 20 °C (68 °F):	3,000 mPas
· Kinematic:	Not determined.
- Solvent content:	
- Organic solvents:	0.7 %
- Water:	0.2 %
- VOC content:	0.66 %
	~ 7.3 g/l / ~ 0.06 lb/gal
- Solids content:	17.3 %
Other information	No further relevant information available.

10 Stability and reactivity

- Reactivity No further relevant information available.
 - Chemical stability
 - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
 - Acute toxicity:

- LL	D/LC50 v	alues that are relevant for classification:
ATE (Acut	e Toxicity	Estimate)
Oral	LD50	5,107 mg/kg (rat)
Dermal	LD50	4,984 mg/kg
Inhalative	LC50/4 h	234 mg/l
CAS: 868-	77-9 2-hyd	droxyethyl methacrylate
Oral	LD50	5,050 mg/kg (rat)
CAS: 79-1	0-7 acrylic	acid
Oral	LD50	250 mg/kg (rat)
Dermal	LD50	280 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)
CAS: 2693	36-30-1 Me	ethacryloxypropyltrimethoxysilane
Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
CAS: 114-	83-0 2'-ph	enylacetohydrazide
Oral	LD50	270 mg/kg (mouse)
CAS: 98-8	2-8 cume	ne ne
Oral	LD50	1,400 mg/kg (rat)
Dermal	LD50	12,300 mg/kg (rabbit)
Inhalative	LC50/4 h	24.7 mg/l (mouse)

(Contd. on page 6)

Printing date 03/06/2019 Reviewed on 02/28/2019

Trade name: Vibra-TITE® Retaining Compound

(Contd. of page 5)

- Primary irritant effect:

- on the skin: Caustic effect on skin and mucous membranes.
- on the eye: Strong caustic effect.
- Sensitization: Sensitization possible through skin contact.

- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- Carcinogenic categories

- IAF	C (International Agency for Research on Cancer)	
CAS: 79-10-7	acrylic acid	3
CAS: 98-82-8	cumene	2E
CAS: 91-20-3	naphthalene	2E
CAS: 1330-20-7	xylene	3
- NT	P (National Toxicology Program)	
CAS: 98-82-8	cumene	F
CAS: 130-15-4	1,4-naphthoquinone	F
CAS: 91-20-3	naphthalene	F
- <i>OS</i>	HA-Ca (Occupational Safety & Health Administration)	
None of the ingr	redients is listed.	

12 Ecological information

- Toxicity
 - Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
 - Bioaccumulative potential No further relevant information available.
 - Mobility in soil No further relevant information available.
- Ecotoxical effects:
 - Remark: Very toxic for fish
- Additional ecological information:
 - General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
 - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
 - **Recommendation:** Disposal must be made according to official regulations.

14 Transport information	
- UN-Number - DOT, ADN, IMDG, IATA	not regulated
- UN proper shipping name - DOT, ADN, IMDG, IATA	not regulated
- Transport hazard class(es)	
- DOT, ADN, IMDG, IATA - Class	not regulated

Printing date 03/06/2019 Reviewed on 02/28/2019

Trade name: Vibra-TITE® Retaining Compound

- Packing group
- DOT, IMDG, IATA
not regulated

- Environmental hazards:
- Marine pollutant:
No
- Special precautions for user
Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78
and the IBC Code
Not applicable.

- UN "Model Regulation":
not regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture - Sara

- Sara	
- Se	ction 355 (extremely hazardous substances):
None of the ingi	redients is listed.
- Sec	ction 313 (Specific toxic chemical listings):
CAS: 79-10-7	acrylic acid
CAS: 80-15-9	dimethylbenzyl hydroperoxide
CAS: 98-82-8	cumene
CAS: 91-20-3	naphthalene
CAS: 1330-20-7	'
- TSCA	(Toxic Substances Control Act):
	ene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate
2-hydroxyethyl i	
Methacrylate or	
Diacrylate	
acrylic acid	
	2-bis[[(1-oxoallyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate
Saccharin	
dimethylbenzyl	hydroperoxide
Methacrylic acid	
propane-1,2-dio	
	pyltrimethoxysilane
2'-phenylacetoh	
	-2-enoyloxy)ethyl 2-methylprop-2-enoate
cumene	
Distillates (petro	oleum), hydrotreated light naphthenic
Solvent Blue 98	
2-Phenyl-2-prop	
	ylenediaminetetraacetate
	a (petroleum), heavy arom.
·	e-1,1-diylbis(phosphonic acid)
N-isopropylhydr	
Colorant	•
1,4-naphthoquir	none
naphthalene	
phosphorous ac	id
2-Propanone, o	xime
xylene	
Deionized water	
- TS	CA new (21st Century Act): (Substances not listed)
	Methacrylate onomer
	2'-phenylacetohydrazide
	zardous Air Pollutants
CAS: 79-10-7	acrylic acid
CAS: 98-82-8	cumene
JAU. 30-02-0	(Control or page 5

Printing date 03/06/2019 Reviewed on 02/28/2019

Trade name: Vibra-TITE® Retaining Compound

		(Contd. of page 7)
CAS: 130-1	15-4 1,4-naphthoquinone	
CAS: 91-20	0-3 naphthalene	
CAS: 1330	-20-7 xylene	

- Proposition 65

- Proposition 65			
- Chemicals known to cause cancer:			
CAS: 60506-81-2	2-[[3-hydroxy-2,2-bis[[(1-oxoallyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate		
CAS: 98-82-8	cumene		
CAS: 91-20-3	naphthalene		
- Cher	- Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.			
- Chemicals known to cause reproductive toxicity for males:			
None of the ingredients is listed.			
- Chemicals known to cause developmental toxicity:			
CAS: 26936-30-1	Methacryloxypropyltrimethoxysilane		

- Carcinogenic categories

	.gome emegerse	
- EPA	A (Environmental Protection Agency)	
CAS: 98-82-8	cumene	D, CBD
CAS: 91-20-3	naphthalene	C, CBI
CAS: 1330-20-7	xylene	I
- <i>TL</i> V	(Threshold Limit Value established by ACGIH)	
CAS: 79-10-7	acrylic acid	A
CAS: 91-20-3	naphthalene	A
CAS: 1330-20-7	xylene	A
- NIO	SH-Ca (National Institute for Occupational Safety and Health)	
None of the ingre	edients is listed.	

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: ND Industries, Inc. Safety, Health and Environmental Affaires
- Contact: Safety, Health and Environmental Affaires
 - Date of preparation / last revision 03/06/2019 / 31
 - Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation

IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, ÉU)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Carc. 2: Carcinogenicity – Category 2 Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 Asp. Tox. 1: Aspiration hazard – Category 1

- * Data compared to the previous version altered.

Disclaimer

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Printing date 03/06/2019 Reviewed on 02/28/2019

Trade name: Vibra-TITE® Retaining Compound

(Contd. of page 8)

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