

Safety Data Sheet
according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/29/2024

1 Identification

- Product identifier

- **Trade name:** Vibra-TITE® Retaining Compound
- **Synonyms:** 541 High Strength - Slip Fit Retaining Compound
- **Part number:** VT541
- **Application of the substance / the mixture**
Assembly adhesive
Retaining agents

- 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 identification**

- Classification of the substance or mixture



GHS08 Health hazard

Carcinogenicity – Category 2 H351 Suspected of causing cancer.



GHS05 Corrosion

Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2 H315 Causes skin irritation.
Skin Sensitizer - Category 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:

- methacrylic acid, monoester with propane-1,2-diol
- acrylic acid
- Cumene
- Diacrylate
- 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.

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- 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/vapours/spray.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P280	Wear protective gloves.
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.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

* 3 Composition/Information on ingredients

- Chemical characterization: Mixtures

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

- Dangerous components:

CAS: 27813-02-1	methacrylic acid, monoester with propane-1,2-diol Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317	10 – 30% w/w
	Acrylic polymer Combustible Dusts - Category 1	10 – 30% w/w
CAS: 7779-31-9	Methacrylate onomer Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319	7 – 13% w/w
CAS: 42594-17-2	Diacrylate Skin Sensitizer - Category 1, H317	7 – 13% w/w
CAS: 72869-86-4	7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate Flammable Liquids - Category 4, H227	3 – 7% w/w
CAS: 79-10-7	acrylic acid Flammable Liquids - Category 3, H226; Skin Corrosion - Category 1A, H314; Serious Eye Damage - Category 1, H318; Acute Toxicity (Oral) - Category 4, H302; Acute Toxicity (Dermal) – Category 4, H312; Acute Toxicity (Inhalation) - Category 4, H332	1 – 5% w/w
CAS: 80-15-9	dimethylbenzyl hydroperoxide Self-reactive Substances and Mixtures – Type F, H242; Organic Peroxides – Type E, H242; Acute Toxicity (Inhalation) - Category 3, H331; Specific Target Organ Toxicity - Repeated Exposure - Category 2, H373; Aspiration Hazard - Category 1, H304; Skin Corrosion - Category 1B, H314; Serious Eye Damage - Category 1, H318; Acute Toxicity (Oral) - Category 4, H302; Acute Toxicity (Dermal) – Category 4, H312; Specific Target Organ Toxicity - Single Exposure - Category 3, H335; Flammable Liquids - Category 4, H227	0.1 – 1% w/w
CAS: 79-41-4	Methacrylic acid Acute Toxicity (Dermal) – Category 3, H311; Skin Corrosion - Category 1A, H314; Serious Eye Damage - Category 1, H318; Acute Toxicity (Oral) - Category 4, H302; Acute Toxicity (Inhalation) - Category 4, H332; Specific Target Organ Toxicity - Single Exposure - Category 3, H335; Flammable Liquids - Category 4, H227	0.1 – 1% w/w
CAS: 114-83-0	2'-phenylacetohydrazide Acute Toxicity (Oral) - Category 4, H302; Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317; Specific Target Organ Toxicity - Single Exposure - Category 3, H335	0.1 – 1% w/w
CAS: 98-82-8	Cumene Flammable Liquids - Category 3, H226; Carcinogenicity – Category 2, H351; Aspiration Hazard - Category 1, H304; Acute Toxicity (Oral) - Category 4, H302; Specific Target Organ Toxicity - Single Exposure - Category 3, H335	0.1 – 1% w/w

* 4 First-aid measures

- Description of first aid measures

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

- 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.

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- **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.
- **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 section 13.
Ensure adequate ventilation.
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:** No special measures required.
- **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 section 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.

CAS: 79-10-7 acrylic acid

EL (Canada)	TWA: 2 ppm Skin; R
EV (Canada)	TWA: 2 ppm
REL (USA)	TWA: 6 mg/m ³ , 2 ppm Skin
TLV (USA)	TWA: 2 ppm Skin, A3

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CAS: 80-15-9 dimethylbenzyl hydroperoxide	
WEEL (USA)	TWA: 6 mg/m ³ , 1 ppm Skin
CAS: 79-41-4 Methacrylic acid	
EL (Canada)	TWA: 20 ppm
EV (Canada)	TWA: 70 mg/m ³ , 20 ppm
REL (USA)	TWA: 70 mg/m ³ , 20 ppm Skin
TLV (USA)	TWA: 20 ppm
CAS: 98-82-8 Cumene	
EL (Canada)	STEL: 75 ppm TWA: 25 ppm IARC 2B
EV (Canada)	TWA: 245 mg/m ³ , 50 ppm Skin
PEL (USA)	TWA: 245 mg/m ³ , 50 ppm Skin
REL (USA)	TWA: 245 mg/m ³ , 50 ppm Skin
TLV (USA)	TWA: 5 ppm 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.

- Eye protection:



Tightly sealed goggles

- **Body protection:** Protective work clothing

* 9 Physical and chemical properties

- Information on basic physical and chemical properties

- General Information

- Appearance:

- **Form:** Fluid
- **Color:** Green
- **Odor:** Weak, characteristic
- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

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- Change in condition	
- Melting point/Melting range:	Undetermined.
- Boiling point/Boiling range:	≥ 209 °C
- Flash point:	95 °C
- Flammability (solid, gaseous):	Not applicable.
- Decomposition temperature:	Not determined.
- Ignition temperature:	Product is not selfigniting.
- Danger of explosion:	Product does not present an explosion hazard.
- Explosion limits:	
- Lower:	Not determined.
- Upper:	Not determined.
- Vapor pressure at 20 °C:	≤ 0.1 hPa
- Density at 20 °C:	
- Relative density	~ 1.1 g/cm ³
- Vapor density	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with	
- Water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water):	Not determined.
- Viscosity:	
- Dynamic at 20 °C:	1,500 mPas
- Kinematic:	Not determined.
- Solvent content:	
- Organic solvents:	0.7 %
- Water:	1.0 %
- VOC content:	0.70 % ~ 7.7 g/l / ~ 0.06 lb/gal
- Solids content:	0.7 %
- 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:**

- LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral	LD50	5,102 mg/kg (rat)
Dermal	LD50	5,236 mg/kg (rabbit)
Inhalative	LC50/4 h	222 mg/l

CAS: 79-10-7 acrylic acid

Oral	LD50	250 mg/kg (rat)
Dermal	LD50	280 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

CAS: 80-15-9 dimethylbenzyl hydroperoxide

Oral	LD50	382 mg/kg (rat)
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Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)
CAS: 79-41-4 Methacrylic acid		
Oral	LD50	1,332 mg/kg (mouse)
Dermal	LD50	500 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)
CAS: 114-83-0 2'-phenylacetohydrazide		
Oral	LD50	270 mg/kg (mouse)
CAS: 98-82-8 Cumene		
Oral	LD50	1,400 mg/kg (rat)
Dermal	LD50	12,300 mg/kg (rabbit)
Inhalative	LC50/4 h	24.7 mg/l (mouse)

- 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**- IARC (International Agency for Research on Cancer)**

CAS: 79-10-7	acrylic acid	3
CAS: 98-82-8	Cumene	2B
CAS: 91-20-3	naphthalene	2B
CAS: 1330-20-7	Mixed Xylenes	3
CAS: 100-41-4	ethylbenzene	2B

- NTP (National Toxicology Program)

CAS: 98-82-8	Cumene	R
CAS: 130-15-4	1,4-naphthoquinone	R
CAS: 91-20-3	naphthalene	R

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.**- Ecotoxicological effects:**- **Remark:** Harmful to 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.

Harmful to 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.

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*14 Transport information

- UN-Number - DOT/TDG, ADR, IMDG, IATA	not regulated
- UN proper shipping name - DOT/TDG, ADR, IMDG, IATA	not regulated
- Transport hazard class(es) - DOT/TDG, ADR, ADN, IMDG, IATA - Class	not regulated
- Packing group - DOT/TDG, ADR, 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**

No further relevant information available.

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

CAS: 79-10-7	acrylic acid
CAS: 80-15-9	dimethylbenzyl hydroperoxide
CAS: 98-82-8	Cumene
CAS: 98-86-2	acetophenone
CAS: 91-20-3	naphthalene
CAS: 1330-20-7	Mixed Xylenes
CAS: 100-41-4	ethylbenzene

- **TSCA (Toxic Substances Control Act):**

methacrylic acid, monoester with propane-1,2-diol	ACTIVE
Acrylic polymer	ACTIVE
Methacrylate onomer	ACTIVE
Diacrylate	ACTIVE
7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	ACTIVE
acrylic acid	ACTIVE
Deionized water	ACTIVE
dimethylbenzyl hydroperoxide	ACTIVE
Methacrylic acid	ACTIVE
Saccharin	ACTIVE
propane-1,2-diol	ACTIVE
2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate	ACTIVE
2'-phenylacetohydrazide	ACTIVE
Cumene	ACTIVE
2,5-thiophenediylbis(5-tert-butyl-1,3-benzoxazole)	ACTIVE
tetrasodium ethylenediaminetetraacetate	ACTIVE
Distillates (petroleum), hydrotreated light naphthenic	ACTIVE
Colorant	ACTIVE
acetophenone	ACTIVE
2-Phenyl-2-propanol	ACTIVE
Solvent Yellow 126	ACTIVE
N-isopropylhydroxylamine	ACTIVE

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1-hydroxyethane-1,1-diylbis(phosphonic acid)	ACTIVE
Solvent naphtha (petroleum), heavy arom.	ACTIVE
1,4-naphthoquinone	ACTIVE
naphthalene	ACTIVE
2-Propanone, oxime	ACTIVE
phosphorous acid	ACTIVE
Mixed Xylenes	ACTIVE
ethylbenzene	ACTIVE

- Canadian substance listings:**- Canadian Domestic Substances List (DSL)**

CAS: 27813-02-1	methacrylic acid, monoester with propane-1,2-diol
	Acrylic polymer
CAS: 42594-17-2	Diacrylate
CAS: 79-10-7	acrylic acid
CAS: 7732-18-5	Deionized water
CAS: 80-15-9	dimethylbenzyl hydroperoxide
CAS: 79-41-4	Methacrylic acid
CAS: 128-44-9	Saccharin
CAS: 57-55-6	propane-1,2-diol
CAS: 25852-47-5	2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate
CAS: 114-83-0	2'-phenylacetohydrazide
CAS: 98-82-8	Cumene
CAS: 7128-64-5	2,5-thiophenediylbis(5-tert-butyl-1,3-benzoxazole)
CAS: 64-02-8	tetrasodium ethylenediaminetetraacetate
CAS: 64742-53-6	Distillates (petroleum), hydrotreated light naphthenic
CAS: 74499-36-8	Colorant
CAS: 98-86-2	acetophenone
CAS: 617-94-7	2-Phenyl-2-propanol
CAS: 5080-22-8	N-isopropylhydroxylamine
CAS: 2809-21-4	1-hydroxyethane-1,1-diylbis(phosphonic acid)
CAS: 64742-94-5	Solvent naphtha (petroleum), heavy arom.
CAS: 130-15-4	1,4-naphthoquinone
CAS: 91-20-3	naphthalene
CAS: 13598-36-2	phosphorous acid
CAS: 1330-20-7	Mixed Xylenes
CAS: 100-41-4	ethylbenzene

- Canadian Non-Domestic Substances List (NDSL)

CAS: 7779-31-9	Methacrylate onomer
CAS: 72869-86-4	7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate
CAS: 127-06-0	2-Propanone, oxime

- Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

- Canadian Ingredient Disclosure list (limit 1%)

CAS: 79-10-7 acrylic acid

- 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 Affairs**- Contact:** Safety, Health and Environmental Affairs**- Classification System:****- HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = *3
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

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- NFPA ratings (scale 0 - 4)

Health = 3
Fire = 1
Reactivity = 0

- Date of the latest revision of the safety data sheet 01/29/2024**- Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

- * Data compared to the previous version altered.**- Disclaimer**

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