

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/06/2019

Reviewed on 03/05/2019

1 Identification

- Product identifier

- **Trade name:** Vibra-TITE® Structural Adhesive
- **Synonyms:** 225 No-Mix Structural Acrylic
- **Part number:** VT225
- **Application of the substance / the mixture** Adhesives

- 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



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

- Signal word Danger

- Hazard-determining components of labeling:

acrylic acid
 methacrylic acid, monoester with propane-1,2-diol
 2'-phenylacetohydrazide

- Hazard statements

H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H317 May cause an allergic skin reaction.

- Precautionary statements

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.
 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.
 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.

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/06/2019

Reviewed on 03/05/2019

Trade name: Vibra-TITE® Structural Adhesive

(Contd. of page 1)

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P363 Wash contaminated clothing before reuse.
 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:

	Urethane acrylate Oligomer Skin Irrit. 2, H315; Eye Irrit. 2B, H320	59.09%
CAS: 27813-02-1	methacrylic acid, monoester with propane-1,2-diol Eye Irrit. 2A, H319; Skin Sens. 1, H317	10 – 19%
CAS: 109-16-0	Triethylene glycol dimethacrylate Flam. Liq. 4, H227; Eye Irrit. 2B, H320	10 – 19%
CAS: 79-10-7	acrylic acid Flam. Liq. 3, H226; Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	4.93%
CAS: 614-45-9	tert-butyl perbenzoate Org. Perox. C, H242; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	1 – 4%
CAS: 114-83-0	2'-phenylacetohydrazide Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	≤ 1%

4 First-aid measures

- Description of first aid measures**- After inhalation:**

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. If symptoms persist, consult a doctor.

- **After swallowing:** If symptoms persist consult 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.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/06/2019

Reviewed on 03/05/2019

Trade name: Vibra-TITE® Structural Adhesive

(Contd. of page 2)

Ensure adequate ventilation

Wear protective clothing.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.- **Methods and material for containment and cleaning up:**

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 constituent is the only constituent of the product which has 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

REL Long-term value: 6 mg/m³, 2 ppm
SkinTLV Long-term value: 5.9 mg/m³, 2 ppm
Skin- **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:**

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.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/06/2019

Reviewed on 03/05/2019

Trade name: Vibra-TITE® Structural Adhesive

(Contd. of page 3)

- 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:** Viscous
- **Color:** Dark brown
- **Odor:** Characteristic
- **Odor threshold:** Not determined.

- pH-value: Not determined.**- Change in condition**

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** $\geq 209\text{ }^{\circ}\text{C}$ ($\geq 408.2\text{ }^{\circ}\text{F}$)

- Flash point: $95\text{ }^{\circ}\text{C}$ ($203\text{ }^{\circ}\text{F}$)**- Flammability (solid, gaseous):** Not applicable.**- Decomposition temperature:** Not determined.**- Auto igniting:** 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 $20\text{ }^{\circ}\text{C}$ ($68\text{ }^{\circ}\text{F}$): $\leq 0.1\text{ hPa}$ ($\leq 0.1\text{ mm Hg}$)**- Density at $20\text{ }^{\circ}\text{C}$ ($68\text{ }^{\circ}\text{F}$):** $\sim 1.1\text{ g/cm}^3$ ($\sim 9.1795\text{ lbs/gal}$)

- **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/water):** Not determined.**- Viscosity:**

- **Dynamic at $20\text{ }^{\circ}\text{C}$ ($68\text{ }^{\circ}\text{F}$):** 30,000 mPas
- **Kinematic:** Not determined.

- Solvent content:

- **Organic solvents:** 0.6 %
- **Water:** 0.1 %
- **VOC content:** 0.55 %
 $\sim 6.1\text{ g/l}$ / $\sim 0.05\text{ lb/gal}$

- Solids content: 0.6 %**- 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.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/06/2019

Reviewed on 03/05/2019

Trade name: Vibra-TITE® Structural Adhesive

(Contd. of page 4)

*11 Toxicological information

- Information on toxicological effects

- Acute toxicity:

- LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral	LD50	4,307 mg/kg (rat)
Dermal	LD50	5,680 mg/kg (rabbit)
Inhalative	LC50/4 h	223 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: 614-45-9 tert-butyl perbenzoate

Oral	LD50	1,012 mg/kg (rat)
------	------	-------------------

CAS: 114-83-0 2'-phenylacetohydrazide

Oral	LD50	270 mg/kg (mouse)
------	------	-------------------

- Primary irritant effect:

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- Additional toxicological information:

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

Irritant

- Carcinogenic categories

- IARC (International Agency for Research on Cancer)

CAS: 79-10-7	acrylic acid	3
--------------	--------------	---

- NTP (National Toxicology Program)

CAS: 130-15-4	1,4-naphthoquinone	R
---------------	--------------------	---

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients 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.

- 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.

- 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

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/06/2019

Reviewed on 03/05/2019

Trade name: Vibra-TITE® Structural Adhesive

(Contd. of page 5)

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

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

None of the ingredients is listed.

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

CAS: 79-10-7 acrylic acid

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

methacrylic acid, monoester with propane-1,2-diol

Triethylene glycol dimethacrylate

acrylic acid

tert-butyl perbenzoate

Saccharin

Glycol dimethacrylate

propane-1,2-diol

2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate

2'-phenylacetohydrazide

1-hydroxyethane-1,1-diybis(phosphonic acid)

tetrasodium ethylenediaminetetraacetate

1,4-naphthoquinone

phosphorous acid

Deionized water

- **TSCA new (21st Century Act): (Substances not listed)**

Urethane acrylate Oligomer

CAS: 114-83-0 2'-phenylacetohydrazide

- **Hazardous Air Pollutants**

CAS: 79-10-7 acrylic acid

CAS: 130-15-4 1,4-naphthoquinone

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **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:**

None of the ingredients is listed.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/06/2019

Reviewed on 03/05/2019

Trade name: Vibra-TITE® Structural Adhesive

(Contd. of page 6)

- Carcinogenic categories

- EPA (Environmental Protection Agency)

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)

CAS: 79-10-7 acrylic acid

A4

- NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients 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 Affairs

- **Contact:** Safety, Health and Environmental Affairs

- **Date of preparation / last revision** 03/06/2019 / 10

- 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, EU)

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

Flam. Liq. 4: Flammable liquids – Category 4

Org. Perox. C: Organic peroxides – Type C/D

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

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

- Disclaimer

The information set forth is based on information that ND Industries, Incorporated believes to be accurate. No warranty, expressed or implied, is intended. The information is provided solely for your information and consideration and ND Industries Inc. assumes no legal responsibility for use or reliance thereon. In the event of a discrepancy between the information on the non-English document and its English counterpart, the English version shall supersede.

®ND and ND Industries, Inc. are registered trademarks of ND Industries Incorporated,

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