

**Kit Components**

Product code	Description
<b>VTPB405</b>	<b>Vibra-TITE® Methacrylate Adhesives PB405 MMA - All Purpose - Extremely Fast Set</b>

## Components:

VTPB405A	Vibra-TITE® Methacrylate Adhesives PB 405 All Purpose - Extremely Fast Set - Part A
VTPB405B	Vibra-TITE® Methacrylate Adhesives PB405 All Purpose - Extremely Fast Set - Part B

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 01/03/2018

**1 Identification**

**- Product identifier**

- **Trade name:** Vibra-TITE® Methacrylate Adhesives
- **Synonyms:** PB 405 All Purpose - Extremely Fast Set - Part A
- **Part number:** VTPB405A
- **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**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.  
Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.  
Acute Tox. 4 H312 Harmful in contact with skin.  
Acute Tox. 4 H332 Harmful if inhaled.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
STOT SE 3 H335 May cause respiratory irritation.

**- Label elements**

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

**- Hazard pictograms**



GHS02 GHS05 GHS07 GHS08

- **Signal word** Danger

**- Hazard-determining components of labeling:**

methyl methacrylate  
Methacrylic acid

**- Hazard statements**

H225 Highly flammable liquid and vapor.  
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 01/03/2018

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 1)

- H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H335 May cause respiratory irritation.  
 H373 May cause damage to organs through prolonged or repeated exposure.

**- Precautionary statements**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 P233 Keep container tightly closed.  
 P240 Ground/bond container and receiving equipment.  
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
 P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
 P261 Do not breathe dusts or mists.  
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P280 Wear protective gloves.  
 P280 Wear protective gloves / protective clothing.  
 P280 Wear eye protection / face protection.  
 P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.  
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 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.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 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:** Void

**4 First-aid measures****- Description of first aid measures****- General information:**

Immediately remove any clothing soiled by the product.  
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**- 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:**

Immediately call a doctor.  
 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.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 01/03/2018

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 2)

- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
  - **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
  - **Protective equipment:**  
Mouth respiratory protective device.  
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  
Keep away from ignition sources  
Wear protective clothing.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
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:** Store in a cool location.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **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 product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
    - **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.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 01/03/2018

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 3)

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.

**- 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:**

Cream colored

**- Odor:**

Pungent

**- Odor threshold:**

Not determined.

**- pH-value:**

Not determined.

**- Change in condition****- Melting point/Melting range:**

Undetermined.

**- Boiling point/Boiling range:**

101 °C (213.8 °F)

**- Flash point:**

10 °C (50 °F)

**- Flammability (solid, gaseous):**

Not applicable.

**- Ignition temperature:**

430 °C (806 °F)

**- Decomposition temperature:**

Not determined.

**- Auto igniting:**

Product is not selfigniting.

**- Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**- Explosion limits:****- Lower:**

2.1 Vol %

**- Upper:**

12.5 Vol %

**- Vapor pressure at 20 °C (68 °F):**

47 hPa (35.3 mm Hg)

**- Density:**

Not determined.

**- 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:**

Not determined.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 01/03/2018

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 4)

- <b>Kinematic:</b>	Not determined.
- <b>Solvent content:</b>	
- <b>VOC content:</b>	0.00 % 0.0 g/l / 0.00 lb/gal
- <b>Solids content:</b>	29.7 %
- <b>Other information</b>	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	11,961 mg/kg
Dermal	LD50	7,003 mg/kg (rabbit)
Inhalative	LC50/4 h	200 mg/l

#### - Primary irritant effect:

- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.

#### - Sensitization:

#### - Additional toxicological information:

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

Harmful  
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)

None of the ingredients is listed.

#### - NTP (National Toxicology Program)

None of the ingredients is listed.

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

### - Results of PBT and vPvB assessment

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

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 01/03/2018

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 5)

## 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

- <b>UN-Number</b> - <b>DOT, IMDG, IATA</b>	UN2924
- <b>UN proper shipping name</b> - <b>DOT</b>  - <b>IMDG, IATA</b>	Flammable liquids, corrosive, n.o.s. (Methyl methacrylate monomer, stabilized, Methacrylic acid, stabilized) FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, METHACRYLIC ACID, STABILIZED)
- <b>Transport hazard class(es)</b>  - <b>DOT</b>	
 	
- <b>Class</b> - <b>Label</b>	3 Flammable liquids 3, 8
- <b>IMDG</b>	
 	
- <b>Class</b> - <b>Label</b>	3 Flammable liquids 3/8
- <b>IATA</b>	
 	
- <b>Class</b> - <b>Label</b>	3 Flammable liquids 3 (8)
- <b>Packing group</b> - <b>DOT, IMDG, IATA</b>	II
- <b>Environmental hazards:</b>	Not applicable.
- <b>Special precautions for user</b> - <b>Danger code (Kemler):</b> - <b>EMS Number:</b> - <b>Segregation groups</b> - <b>Stowage Category</b> - <b>Stowage Code</b>	Warning: Flammable liquids 338 F-E,S-C Acids B SW2 Clear of living quarters.
- <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
- <b>Transport/Additional information:</b>  - <b>DOT</b> - <b>Quantity limitations</b>	On passenger aircraft/rail: 1 L On cargo aircraft only: 5 L
- <b>IMDG</b> - <b>Limited quantities (LQ)</b>	1L

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 01/03/2018

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 6)

<b>- Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>- UN "Model Regulation":</b>	UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, METHACRYLIC ACID, STABILIZED), 3 (8), II

## \*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):

None of the ingredients is listed.

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

None of the ingredients is listed.

##### - Hazardous Air Pollutants

None of the ingredients is listed.

##### - 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.

##### - Carcinogenic categories

##### - EPA (Environmental Protection Agency)

None of the ingredients is listed.

##### - TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

##### - 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** 05/03/2019 / 8

#### - 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. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

(Contd. on page 8)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 01/03/2018

**Trade name:** Vibra-TITE® Methacrylate Adhesives

(Contd. of page 7)

Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Skin Sens. 1: Skin sensitisation – Category 1  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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

- **Disclaimer**

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**Safety Data Sheet**  
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**1 Identification**

**- Product identifier**

- **Trade name:** Vibra-TITE® Methacrylate Adhesives
- **Synonyms:** PB405 All Purpose - Extremely Fast Set - Part B
- **Part number:** VTPB405B
- **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**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS07

- Acute Tox. 4 H302 Harmful if swallowed.
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2A H319 Causes serious eye irritation.
- Skin Sens. 1 H317 May cause an allergic skin reaction.
- STOT SE 3 H335 May cause respiratory irritation.
- Flam. Liq. 4 H227 Combustible liquid.

**- Label elements**

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

**- Hazard pictograms**



GHS07 GHS08

- **Signal word** Warning

**- Hazard-determining components of labeling:**

Bisphenol-A epoxy resin  
dimethylbenzyl hydroperoxide  
benzoyl peroxyde  
zinc distearate

**- Hazard statements**

H227 Combustible liquid.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H351 Suspected of causing cancer.  
H335 May cause respiratory irritation.

**- Precautionary statements**

P210 Keep away from flames and hot surfaces. – No smoking.

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 05/03/2019

**Trade name:** Vibra-TITE® Methacrylate Adhesives

(Contd. of page 1)

P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash face, hands and any exposed skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
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.
P301+P312	If swallowed: Call a poison center/doctor if you feel unwell.
P330	Rinse mouth.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
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.
P321	Specific treatment (see on this label).
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

**- Classification system:****- NFPA ratings (scale 0 - 4)**

2	0	Health = 2
2		Fire = 2
		Reactivity = 0

**- HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = *2
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 0

**- 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: 25068-38-6	Bisphenol-A epoxy resin Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	50 – 59%
CAS: 94-36-0	benzoyl peroxyde Org. Perox. B, H241; Eye Irrit. 2A, H319; Skin Sens. 1, H317	20 – 29%
CAS: 131298-44-7	branched C10-alkyl benzoates Acute Tox. 4, H332	5 – 9%
CAS: 1317-65-3	Calcium Carbonate Skin Irrit. 2, H315	5 – 9%
CAS: 80-15-9	dimethylbenzyl hydroperoxide Self-react. F, H242; Org. Perox. E, H242; Acute Tox. 3, H331; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; STOT SE 3, H335; Flam. Liq. 4, H227	1 – 4%
CAS: 67762-90-7	Amorphous Silica Combustible Dust	1 – 4%
CAS: 557-05-1	zinc distearate STOT SE 3, H335	1 – 4%
CAS: 98-82-8	cumene Flam. Liq. 3, H226; Carc. 2, H351; Asp. Tox. 1, H304; Acute Tox. 4, H302; STOT SE 3, H335	≤ 1%

**4 First-aid measures****- Description of first aid measures****- General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 05/03/2019

Trade name: Vibra-TITE® Methacrylate Adhesives

(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. If symptoms persist, consult a doctor.
- **After swallowing:** 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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
CO<sub>2</sub>, 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**  
Ensure adequate ventilation  
Keep away from ignition sources  
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:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 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:** Protect from heat.
- **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.  
Protect from heat and direct sunlight.
- **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.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 05/03/2019

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 3)

<b>CAS: 80-15-9 dimethylbenzyl hydroperoxide</b>	
WEEL	Long-term value: 6 mg/m <sup>3</sup> , 1 ppm Skin
<b>CAS: 69012-64-2 Silica-Amorphous Silica fume</b>	
TLV	TLV withdrawn
<b>CAS: 557-05-1 zinc distearate</b>	
PEL	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV	Long-term value: 10 mg/m <sup>3</sup>
<b>CAS: 98-82-8 cumene</b>	
PEL	Long-term value: 245 mg/m <sup>3</sup> , 50 ppm Skin
REL	Long-term value: 245 mg/m <sup>3</sup> , 50 ppm Skin
TLV	Long-term value: (246) NIC-0.5 mg/m <sup>3</sup> , (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:

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:** Viscous
- **Color:** Whitish
- **Odor:** Pungent
- **Odor threshold:** Not determined.

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

#### - Change in condition

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** ≥ 260 °C (≥ 500 °F)

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 05/03/2019

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 4)

- <b>Flash point:</b>	84 °C (183.2 °F)
- <b>Flammability (solid, gaseous):</b>	Not applicable.
- <b>Decomposition temperature:</b>	Not determined.
- <b>Auto igniting:</b>	Product is not selfigniting.
- <b>Danger of explosion:</b>	Not determined.
- <b>Explosion limits:</b>	
- <b>Lower:</b>	Not determined.
- <b>Upper:</b>	Not determined.
- <b>Vapor pressure:</b>	Not determined.
- <b>Density at 20 °C (68 °F):</b>	~ 0.96 g/cm <sup>3</sup> (~ 8.0112 lbs/gal)
- <b>Relative density</b>	Not determined.
- <b>Vapor density</b>	Not determined.
- <b>Evaporation rate</b>	Not determined.
- <b>Solubility in / Miscibility with</b>	
- <b>Water:</b>	Not miscible or difficult to mix.
- <b>Partition coefficient (n-octanol/water):</b>	Not determined.
- <b>Viscosity:</b>	
- <b>Dynamic at 20 °C (68 °F):</b>	80,000 mPas
- <b>Kinematic:</b>	Not determined.
- <b>Solvent content:</b>	
- <b>Organic solvents:</b>	0.3 %
- <b>VOC content:</b>	0.30 % ~ 2.9 g/l / ~ 0.02 lb/gal
- <b>Solids content:</b>	7.2 %
- <b>Other information</b>	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	15,159 mg/kg (rat)
Dermal	LD50	19,841 mg/kg (rat)
Inhalative	LC50/4 h	135 mg/l

#### CAS: 131298-44-7 branched C10-alkyl benzoates

Inhalative	LC50/4 h	11 mg/l (ATE)
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#### CAS: 80-15-9 dimethylbenzyl hydroperoxide

Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)

#### CAS: 557-05-1 zinc distearate

Oral	LD50	10,000 mg/kg (rat)
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#### CAS: 98-82-8 cumene

Oral	LD50	1,400 mg/kg (rat)
Dermal	LD50	12,300 mg/kg (rabbit)

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 05/03/2019

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 5)

Inhalative LC50/4 h 24.7 mg/l (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:

Harmful  
Irritant

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

CAS: 94-36-0	benzoyl peroxyde	3
CAS: 69012-64-2	Silica-Amorphous Silica fume	3
CAS: 98-82-8	cumene	2B
CAS: 128-37-0	Butylated hydroxytoluene	3

**- NTP (National Toxicology Program)**

CAS: 98-82-8	cumene	R
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**- 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.

**- Ecotoxicological effects:**

- **Remark:** Toxic for fish

**- Additional ecological information:****- General notes:**

Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
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** not regulated  
- **IMDG, IATA** UN3082

**- UN proper shipping name**

- **DOT** not regulated  
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN, dimethylbenzyl hydroperoxide), MARINE POLLUTANT  
  
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN)

(Contd. on page 7)

# Safety Data Sheet


acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 05/03/2019

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 6)

<b>- Transport hazard class(es)</b>	
- DOT	
- Class	not regulated
<b>- IMDG, IATA</b>	
	
- Class	9 Miscellaneous dangerous substances and articles
- Label	9
<b>- Packing group</b>	
- DOT	not regulated
- IMDG, IATA	III
<b>- Environmental hazards:</b>	
- Marine pollutant:	Product contains environmentally hazardous substances: LIQUID EPOXY RESIN Yes Symbol (fish and tree)
- Special marking (IATA):	Symbol (fish and tree)
<b>- Special precautions for user</b>	
- Danger code (Kemler):	Warning: Miscellaneous dangerous substances and articles 90
- EMS Number:	F-A,S-F
- Stowage Category	A
<b>- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
	Not applicable.
<b>- Transport/Additional information:</b>	
<b>- IMDG</b>	
- Limited quantities (LQ)	5L
- Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<b>- UN "Model Regulation":</b>	
	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN), 9, III

## \*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: 94-36-0	benzoyl peroxyde
CAS: 80-15-9	dimethylbenzyl hydroperoxide
CAS: 557-05-1	zinc distearate
CAS: 98-82-8	cumene

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

All components have the value ACTIVE.

**- Hazardous Air Pollutants**

CAS: 98-82-8 cumene

**- Proposition 65**

**- Chemicals known to cause cancer:**

CAS: 98-82-8 cumene

**- 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.

(Contd. on page 8)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 05/03/2019

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 7)

<b>- Chemicals known to cause developmental toxicity:</b>		
None of the ingredients is listed.		
<b>- Carcinogenic categories</b>		
<b>- EPA (Environmental Protection Agency)</b>		
CAS: 557-05-1	zinc distearate	D, I, II
CAS: 98-82-8	cumene	D, CBD
<b>- TLV (Threshold Limit Value established by ACGIH)</b>		
CAS: 94-36-0	benzoyl peroxyde	A4
CAS: 128-37-0	Butylated hydroxytoluene	A4
<b>- NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
None of the ingredients is listed.		
<b>- Chemical safety assessment:</b> 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** 05/03/2019 / 7

**- 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  
 Self-react. F: Self-reactive substances and mixtures – Type E/F  
 Org. Perox. B: Organic peroxides – Type B  
 Org. Perox. E: Organic peroxides – Type E/F  
 Acute Tox. 3: Acute toxicity – Category 3  
 Acute Tox. 4: Acute toxicity – Category 4  
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
 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  
 Carc. 2: Carcinogenicity – Category 2  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2  
 Asp. Tox. 1: Aspiration hazard – Category 1

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

**- Disclaimer**

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