

**Kit Components**

Product code	Description
<b>VTPB500</b>	<b>Vibra-TITE® Methacrylate Adhesives PB500 Low Surface Energy Bonding Resin</b>

## Components:

VTPB500A	Vibra-TITE® Methacrylate Adhesives PB500 Low Surface Energy Bonding Resin - Part A
VTPB500B	Vibra-TITE® Methacrylate Adhesives PB500 Low Surface Energy Bonding Resin - Part B

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

Printing date 05/20/2019

Reviewed on 05/20/2019

## 1 Identification

**- Product identifier**

- **Trade name:** Vibra-TITE® Methacrylate Adhesives
- **Synonyms:** PB500 Low Surface Energy Bonding Resin - Part A
- **Part number:** VTPB500A
- **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**



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**



**- Signal word** Warning

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

tetrahydrofurfuryl methacrylate  
2-Butenedioic acid (2Z)  
2-ethylhexyl methacrylate  
Monofunctional acid ester

**- Hazard statements**

H227 Combustible liquid.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.

**- Precautionary statements**

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

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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.
P312	Call a poison center/doctor if you feel unwell.
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.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use for extinction: CO <sub>2</sub> , powder or water spray.
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	2	0
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Health = 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: 2455-24-5	tetrahydrofurfuryl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	50 – 59%
CAS: 20882-04-6	Butanedioic acid Skin Irrit. 2, H315; Eye Irrit. 2A, H319	10 – 19%
CAS: 688-84-6	2-ethylhexyl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335; Flam. Liq. 4, H227	5 – 9%
CAS: 69912-79-4	Desiccant Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	5 – 9%
CAS: 110-16-7	2-Butenedioic acid (Z) Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	1 – 4%
CAS: 67762-90-7	Amorphous Silica Combustible Dust	1 – 4%
	Monofunctional acid ester Acute Tox. 3, H311; Skin Corr. 1C, H314; Eye Dam. 1, H318; Skin Sens. 1, H317	≤ 1%

### 4 First-aid measures

**- Description of first aid measures****- 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:** 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.

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Trade name: Vibra-TITE® Methacrylate Adhesives

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## 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**  
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).  
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 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.  
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.

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Trade name: Vibra-TITE® Methacrylate Adhesives

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**- 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:**

Safety glasses



Tightly sealed goggles

**- Body protection:** Protective work clothing

## 9 Physical and chemical properties

**- Information on basic physical and chemical properties****- General Information****- Appearance:****- Form:**

Pasty

**- Color:**

According to product specification

**- Odor:**

Characteristic

**- Odor threshold:**

Not determined.

**- pH-value:**

Not determined.

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

Undetermined.

**- Boiling point/Boiling range:**

≥ 59 – ≤ 62 °C (≥ 138.2 – ≤ 143.6 °F)

**- Flash point:**

≥ 92 °C (≥ 197.6 °F)

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

Not applicable.

**- Decomposition temperature:**

Not determined.

**- Auto igniting:**

Product is not selfigniting.

**- Danger of explosion:**

Not determined.

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

Not determined.

**- Upper:**

Not determined.

**- Vapor pressure:**

Not determined.

**- Density at 20 °C (68 °F):**~ 1.11747 g/cm<sup>3</sup> (~ 9.32529 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:**

Not determined.

**- Kinematic:**

Not determined.

**- Solvent content:****- VOC content:**0.00 %  
0.0 g/l / 0.00 lb/gal**- Solids content:**

20.2 %

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- **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	20,229 mg/kg (rat)
Dermal	LD50	17,931 mg/kg

### CAS: 110-16-7 2-Butenedioic acid (Z)

Oral	LD50	708 mg/kg (rat)
Dermal	LD50	1,560 mg/kg (rabbit)

### Monofunctional acid ester

Dermal	LD50	300 mg/kg (ATE)
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- **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)

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.
- **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.

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**- Uncleaned packagings:****- Recommendation:** Disposal must be made according to official regulations.**14 Transport information**

<b>- UN-Number</b> - DOT, ADN, IMDG, IATA	not regulated
<b>- UN proper shipping name</b> - DOT, ADN, IMDG, IATA	not regulated
<b>- Transport hazard class(es)</b> - DOT, ADN, IMDG, IATA - Class	not regulated
<b>- Packing group</b> - DOT, IMDG, IATA	not regulated
<b>- Environmental hazards:</b>	Not applicable.
<b>- Special precautions for user</b>	Not applicable.
<b>- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>- UN "Model Regulation":</b>	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):**

Monofunctional acid ester

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

All components have the value ACTIVE.

**- Hazardous Air Pollutants**

None of the ingredients is listed.

**- Proposition 65****- Chemicals known to cause cancer:**

Neoprene polychloroprene

**- Chemicals known to cause reproductive toxicity for females:**

Neoprene polychloroprene

Monofunctional acid ester

**- Chemicals known to cause reproductive toxicity for males:**

Neoprene polychloroprene

Monofunctional acid ester

**- Chemicals known to cause developmental toxicity:**

Monofunctional acid ester

**- 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.

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

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- **Department issuing SDS:** ND Industries, Inc. - Safety, Health and Environmental Affaires

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

- **Date of preparation / last revision** 05/20/2019 / 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. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

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

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

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.

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**1 Identification**

**- Product identifier**

- **Trade name:** Vibra-TITE® Methacrylate Adhesives
- **Synonyms:** PB500 Low Surface Energy Bonding Resin - Part B
- **Part number:** VTPB500B
- **Application of the substance / the mixture**  
Raw materials for coatings  
Raw material for 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.  
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**



GHS05 GHS07

- **Signal word** Danger

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

tetrahydrofurfuryl methacrylate  
Triethylborane-1,3-diaminopropane  
Alkyl ether amine  
2-ethylhexyl methacrylate  
Rosin

**- Hazard statements**

H227 Combustible liquid.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.

**- Precautionary statements**

P210 Keep away from flames and hot surfaces. – No smoking.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 Wash face, hands and any exposed skin thoroughly after handling.

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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.
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).
P312	Call a poison center/doctor if you feel unwell.
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.
P370+P378	In case of fire: Use for extinction: CO <sub>2</sub> , powder or water spray.
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)****- 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: 2455-24-5	tetrahydrofurfuryl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	50 – 59%
CAS: 688-84-6	2-ethylhexyl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335; Flam. Liq. 4, H227	20 – 29%
CAS: 69912-79-4	Desiccant Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	5 – 9%
CAS: 39423-51-3	Alkyl ether amine Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312	1 – 4%
CAS: 67762-90-7	Amorphous Silica Combustible Dust	1 – 4%
CAS: 148861-07-8	Triethylborane-1,3-diaminopropane Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H312	1 – 4%
CAS: 8050-09-7	Rosin Skin Sens. 1, H317	≤ 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. Then 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.

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- **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**  
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:**  
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: 8050-09-7 Rosin

TLV DSEN, RSEN, L

- **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 skin.  
Avoid contact with the eyes and skin.

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Trade name: Vibra-TITE® Methacrylate Adhesives

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**- 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:**

Safety glasses



Tightly sealed goggles

**- Body protection:** Protective work clothing

## 9 Physical and chemical properties

**- Information on basic physical and chemical properties****- General Information****- Appearance:****- Form:**

Pasty

**- Color:**

According to product specification

**- Odor:**

Characteristic

**- Odor threshold:**

Not determined.

**- pH-value:**

Not determined.

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

Undetermined.

**- Boiling point/Boiling range:**

≥ 59 – ≤ 62 °C (≥ 138.2 – ≤ 143.6 °F)

**- Flash point:**

≥ 92 °C (≥ 197.6 °F)

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

Not applicable.

**- Decomposition temperature:**

Not determined.

**- Auto igniting:**

Product is not selfigniting.

**- Danger of explosion:**

Not determined.

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

Not determined.

**- Upper:**

Not determined.

**- Vapor pressure:**

Not determined.

**- 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.

**- Kinematic:**

Not determined.

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/20/2019

Reviewed on 05/20/2019

Trade name: Vibra-TITE® Methacrylate Adhesives

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<b>- Solvent content:</b>	
- <b>Water:</b>	0.2 %
- <b>VOC content:</b>	0.00 % 0.0 g/l / 0.00 lb/gal
<b>- Solids content:</b> 14.7 %	
<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	5,500 mg/kg (rat)
Dermal	LD50	9,880 mg/kg

#### CAS: 39423-51-3 Alkyl ether amine

Oral	LD50	220 mg/kg (rat)
Dermal	LD50	610 mg/kg (rabbit)

#### CAS: 148861-07-8 Triethylborane-1,3-diaminopropane

Dermal	LD50	1,100 mg/kg (ATE)
--------	------	-------------------

- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Strong irritant with the danger of severe eye injury.
- **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: 9010-98-4	Neoprene rubber	3
CAS: 14807-96-6	Soapstone	3

##### - 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.
- **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.  
Harmful to aquatic organisms

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# Safety Data Sheet

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Reviewed on 05/20/2019

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 5)

**- 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**- Packing group**- **DOT, IMDG, IATA** not regulated**- Environmental hazards:**

Not applicable.

**- 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):**

None of the ingredients is listed.

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

tetrahydrofurfuryl methacrylate	ACTIVE
2-ethylhexyl methacrylate	ACTIVE
Neoprene rubber	ACTIVE
Desiccant	ACTIVE
Alkyl ether amine	ACTIVE
Amorphous Silica	ACTIVE
Rosin	ACTIVE
trimethylenediamine	ACTIVE
N-isopropylhydroxylamine	ACTIVE
Soapstone	ACTIVE
2-Propanone, oxime	ACTIVE
Deionized water	ACTIVE

**- 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.

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Trade name: Vibra-TITE® Methacrylate Adhesives

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<b>- Chemicals known to cause reproductive toxicity for males:</b>	
None of the ingredients is listed.	
<b>- Chemicals known to cause developmental toxicity:</b>	
None of the ingredients is listed.	
<b>- Carcinogenic categories</b>	
<b>- EPA (Environmental Protection Agency)</b>	
None of the ingredients is listed.	
<b>- TLV (Threshold Limit Value established by ACGIH)</b>	
CAS: 14807-96-6 Soapstone	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** 05/20/2019 / 5

**- 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. 4: Flammable liquids – Category 4  
 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  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

**- Disclaimer**

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